SCAPPOOSE PLANNING COMMISSION

Council Chambers at City Hall
33568 East Columbia Avenue

AGENDA
Thursday, January 22, 2026 at 7:00 p.m.

1.0 CALL TO ORDER

2.0 ROLL CALL

3.0 APPROVAL OF MINUTES

3.1 December 11th, 2025 meeting minutes

4.0 CITIZEN INPUT

The City accepts public citizen input for any item not on the agenda; in person, by email, mail or joining the Microsoft Teams meeting link on city's website calendar.

5.0 NEW BUSINESS

5.1 Docket # SB 1-25

Brad Hendrickson has requested approval of an application for preliminary Subdivision plat (SB 1-25) to subdivide 1.59 acres of land into 14 lots to support townhouses. The site is an unaddressed property abutting the terminus of both SE Maple Street and SE 6th Court described as Columbia County Assessor Map #3212-DA-04400. The site is east of SE Maple Street and SE Cypress Court intersection.

Format: *Limited Land Use does not allow verbal testimony during the meeting; however the City allows written comments prior to the deadline. Interested parties may submit written comments by mail to City of Scappoose;* Planner, 33568 E. Columbia Avenue, Scappoose, Oregon, 97056 or by email to njohnson@scappoose.gov **by 5 pm**, **Wednesday, January 21, 2026.**

6.0 COMMUNICATIONS

6.1 Calendar Check
6.2 Commissioner Comments
6.3 Staff Comments

7.0 ADJOURNMENT

This is an open meeting, and the public is welcome to attend in person or virtually. Link to attend online can be found within the calendar page on the city's website. The City of Scappoose does not discriminate on the basis of handicap status in its programs and activities. If special accommodations are required, please contact Susan M. Reeves, MMC, City Recorder, in advance, at 543-7146, ext. 224. TTY 1-503-378-5938.

Meeting Packets can be viewed on City's website via the calendar links;
https://www.scappoose.gov/calendar
Please call (503) 543 - 7184 if you have any issues accessing the meeting packets.

SCAPPOOSE PLANNING COMMISSION
Council Chambers at City Hall
33568 East Columbia Avenue

Meeting Minutes
Thursday, December 11th, 2025 at 7:00 p.m.

1.0 CALL TO ORDER
Chair Jensen called the meeting to order at 7pm.

2.0 ROLL CALL

Scott Jensen	Chair	Laurie Oliver Joseph	CDC Director (via video)
Harlow Vernwald	Vice Chair	NJ Johnson	City Planner
Rita Berhard	Commissioner	Elizabeth Happala	Office Administrator
Monica Ahlers	Commissioner		
Sara Jones	Commissioner		
Harry Bludworth	Commissioner		
Peter Williamson	Commissioner		

Attendees;
Applicant's representative-Chase Berg, Lower Columbia Engineering
Property Owner-the Garver's and Christianne Watt
Linda Bolen, real estate agent

3.0 APPROVAL OF MINUTES
3.1 July 24th, 2025 meeting minutes

Commissioner Bernhard moved to approve the minutes and seconded by Commissioner Ahlers.
Motion Passed 7-0. AYES: Chair Jensen, Vice Chair Vernwald, Commissioner Berhard, Commissioner Ahlers, Commissioner Jones, Commissioner Bludworth and Commissioner Williamson.

4.0 CITIZEN INPUT
(there were none)

5.0 NEW BUSINESS
5.1 Docket # ANX 1-25, ZC 2-25, MiP 1-25
Sherman & Marsha Garver and Richard & Christianne Watt have requested approval of a consolidated application for Annexation (ANX 1-25) to annex the subject site into City limits, Zone Change (ZC 2-25) to rezone the subject site from Single-Family Residential (R-10) County zoning to Low Density Residential (R-1) City zoning, and a Minor Partition (MiP 1-25) to partition Tax Lot 3000 into two lots. The site contains two parcels addressed 34094 and 34102 SE Elm Street, south of the SE Elm Street and SE Tussing Way intersection, on properties described as Columbia County Assessor Map #3107-CC-03000 and #3107-CC-03100.

Format: *Quasi-judicial hearings allow verbal testimony during the meeting as well as written comments prior to the deadline. Interested parties may submit written comments by mail to City of Scappoose;* Planner, 33568 E. Columbia Avenue, Scappoose, Oregon, 97056 or by email to njohnson@scappoose.gov by 5 pm, **Wednesday, December 10, 2025. NOTE:** City Council will consider the Planning Commission's recommendation at their public meeting on January 5th, 2026 for the first reading and public comment period, followed by their decision and final reading of the ordinance on January 20, 2026.

Chair Jensen read the docket, called the hearing to order and read the format of the hearing proceedings then asked

if there were any ex-parte contacts or conflicts of interest. As there were none, he asked for the staff report.

City Planner Johnson thanked the chair then welcomed our two new commissioners. He then went over the staff report in the packet, the city recommendations and conditions of approval.

Chair Jensen called the applicant forward for their presentation.

Chase Berg with Lower Columbia Engineering came forward and stated he was the applicant's representative and thanked City Planner Johnson and the commissioner for being here tonight. He began by stating the reason for the annexation was their failing septic system which the state statute unfortunately requires annexation if public sewer is available which it is. Adding that the partition application is to help offset some cost of the annexation by providing affordable housing. He then asked the commissioners if they had any questions.

As there were no questions, Chair Jensen asked for proponents or opponents. As there was none, he closed the hearing for deliberations.

Vice Chair Vernwald asked if the circles for the street trees were based on a 20' full growth size.

City Planner Johnson asked if she was asking about the spacing or the height. Or the symbology in the key.

Chair Jensen replied it was on exhibit 4D, and Vice Chair Vernwald agreed as she was curious how close the street tree is to the new sewer line with the circumference shown on the plan.

City Planner Johnson replied that the trunk will be at least 10 feet from the sewer line, adding that our standard tends to be about 5 feet to be safe. Stating the circumference on the plans is the tree canopy coverage but in terms of where the trunk is located and if it would impact sewer lines under the ground then five feet is our standard.

As there were no other comments, Commissioner Bludworth moved to recommend approval for City Council consideration as presented and Commissioner Bernhard seconded the motion.
Motion Passed 7-0. AYES: Chair Jensen, Vice Chair Vernwald, Commissioner Berhard, Commissioner Ahlers, Commissioner Jones, Commissioner Bludworth and Commissioner Williamson.

6.0 COMMUNICATIONS

6.1 Calendar Check

Chair Jensen went over the calendar.

6.2 Commissioner Comments

Commissioner Bludworth stated he would not be able to attend the January meetings.
Chair Jensen welcomed the new commissioners.

6.3 Staff Comments

City Planner Johnson stated that tonight's docket item will now go to City Council on Jan. 5th for the first reading of the ordinance then Jan. 20th for the final vote. He then went over current projects and applications received.
Community Development Director Oliver Joseph welcomed the new commissioners and thanked City Planner Johnson on writing and presenting the staff report tonight. She then stated that city is involved with an ODOT grant project called Community Paths Grant for a preferred trail route between Scappoose and St. Helens. They are looking for one Planning Commission member to serve on the project advisory committee. Adding that it will be about an 18-month long project to get 30% of plans deliverable with about four project advisory committee meetings that could last about 2 hours each.

Chair Jensen stated that he would be interested. Community Development Director Oliver Joseph thanked him and stated it would result in some final deliverables that would come to Planning Commission to make recommendations to City Council for amendments to our Comp Plan and potentially our Zoning Code and Transportation System Plan. Then she thanked all the Planning Commissioners and wished them a Happy Holiday.

7.0 ADJOURNMENT

Chair Jensen thanked Vice Chair Vernwald then adjourned the meeting at 7:36 pm.

_____
Chair Jensen

Attest: _____
Elizabeth Happala, Office Administrator

CITY OF SCAPPOOSE
PLANNING COMMISSION STAFF REPORT

Request: Approval of an application for preliminary Subdivision plat to subdivide 1.59 acres of land into 14 lots to support townhouses.

Location: The site is an unaddressed property abutting the terminus of both SE Maple Street and SE 6th Court described as Columbia County Assessor Map #3212-DA-04400. The site is east of the SE Maple Street and SE Cypress Court intersection. See Vicinity Map (**Exhibit 1**).

Applicant: Brad Hendrickson

Owner(s): Brad Hendrickson

EXHIBITS

1. Vicinity Map
2. Application Form
    A. Residential Density Calculation Worksheet
3. Land Use Narrative
4. Preliminary Development Plans
    A. Cover Sheet (Sheet G-1)
    B. Existing Conditions Plan (Sheet C-1)
    C. Preliminary Site Plan (Sheet C-2)
    D. Preliminary Grading and ESC [Erosion and Sediment Control] Plan (Sheet C-3)
    E. Street Profile and Cross Sections (Sheet C-4)
    F. Stormwater Plan (Sheet C-5)
    G. Sanitary Plan (Sheet C-6)
    H. Water Plan (Sheet C-7)
    I. Landscape Plan (Sheet C-8)
    J. Future Access and Circulation Plan (Sheet C-9)
5. Trip Generation Analysis from Lower Columbia Engineering, dated November 24, 2025
6. Stormwater Report from Lower Columbia Engineering, dated November 24, 2025[1]
7. Geotechnical Engineering Report from GeoPacific Engineering, Inc., dated May 6, 2025[1]
8. Referral comment from Columbia County Building Official, dated December 29, 2025
9. Referral comment from Columbia River PUD, dated December 29, 2025
10. Referral comment from City of Scappoose Public Works Director, dated January 2, 2026
11. Referral comment from Scappoose School District Superintendent, dated January 5, 2026

[1] *Note: Appendices available on request.*

SUBJECT SITE

- The subject site is 1.59 acres and currently consists of grass and some trees (see **Exhibit 4B**). There is also a 1-foot-wide reserve strip owned by the City of Scappoose between the western property line of the subject site and the SE Maple Street right-of-way. The City has dedicated this as right-of-way per Columbia County Instrument No. 2026-000235.
- The subject site is surrounded by single-family homes to the north, south, and west as well as a large residential property with a house and several outbuildings to the east. The subject site abuts the terminus of SE Maple Street and single-family homes to its west and SE 6th Court to its south.
- The subject site and the parcels to the south are zoned Moderate Density Residential (R-4) and are designated as Suburban Residential (SR) on the Comprehensive Plan Map. The properties to the west are zoned Low Density Residential (R-1) with a Comprehensive Plan Map designation of General Residential (GR). The properties to the north and east are in the urban growth boundary (UGB), zoned by Columbia County as Single-Family Residential (R-10), and designated by the Scappoose Comprehensive Plan Map as SR.
- The subject site is not located within the Special Flood Hazard Area (commonly referred to as the 100-year floodplain) and there are no wetlands, slope hazards, or watercourses on or near the site.
- The site was previously approved for Annexation, Zone Change, and Subdivision/Cottage Housing Development (Maple Street Cottages, local file # ANX1-19/ZC1-19/SB1-19) by City Council on June 1, 2020. The Subdivision was never platted and the approval expired; however, the Annexation and Zone Change remain valid.

OBSERVATIONS

REQUESTED APPROVAL

- The applicant is requesting approval of a preliminary Subdivision plat to subdivide 1.59 acres of land into 14 lots to support townhouses (see **Exhibit 4C**). The lots range in size from 2,931 square feet to 4,116 square feet (see **Exhibit 4C**).
- In addition to the division of lots, the Subdivision would also extend the SE Maple Street right-of-way eastward and extend the SE 6th Court right-of-way northward (see **Exhibit 4C**). The two streets are proposed to extend until they connect (see **Exhibit 4C**).

RIGHT-OF-WAY/PUBLIC IMPROVEMENTS

- The property abuts the eastern terminus of SE Maple Street and northern terminus of SE 6th Court. The applicable sections of both streets are classified by the 2016 Transportation System Plan (TSP)[2] as Local Streets, which require 54 feet of right-of-way width comprised of 32 feet of vehicular travel way & parking, two 5.5-foot planter strips, two 5-foot sidewalks, and two 6-inch utility areas.
- SE Maple Street currently has a right-of-way width of 60 feet and a paved width of ~43.8 feet

[2] City of Scappoose, Transportation System Plan: Volume 1, 2016, Figures 12 & 13a.

but does not have sidewalks (see **Exhibit 4B**). The applicant is proposing to extend SE Maple Street eastward into their site, maintaining a 60-foot right-of-way width and downsizing to a 36-foot paved section to plant street trees in a 5-foot planter strip install 6-foot sidewalks (see **Exhibit 4C**). The planter strip is substandard as proposed; however, this section of SE Maple Street will likely be classified as a Collector, which requires a 36-foot paved section and 6-foot sidewalks, in the next TSP update so a 5-foot planter strip is acceptable to accommodate this.

- SE 6th Court currently has a right-of-way width of 54 feet and a paved width of 32 feet (see **Exhibit 4B**). The applicant is proposing to extend SE 6th Court northward into their site; however, private property to the east of the subject site (Tax Lot 4500) that is not part of the proposed development prevents this extension from maintaining a full 54-foot right-of-way width. Rather than create an offset continuation of SE 6th Court, the City is requiring that the extension be built out to the highest Local Street standard possible within the available right-of-way while maintaining the existing alignment. The applicant is proposing to extend SE 6th Court with a 45.69-foot right-of-way width, 32-foot paved section, 5-foot planter strip on the west, and 5-foot sidewalk on the west (see **Exhibit 4C**). The east side of the street will include curb but no planter strip or sidewalk. Although the proposed western planter strip width is substandard by 0.5 feet, the alignment with the existing section of SE 6th Court takes priority and is approvable as is.
- The applicant is proposing to install four new streetlights throughout the subdivision, roughly spaced at 100-foot intervals (see **Exhibit 4C**).

TRAFFIC GENERATION

- The applicant submitted a Trip Generation Analysis (**Exhibit 5**), which provides the anticipated number of daily trips, including morning and evening peak hour trips, of the proposed development.
- The 14 single-family attached houses are anticipated to generate 57 daily weekday trips, including 2 morning peak hour trips and 7 evening peak hour trips.
- Due to the low volume of expected daily weekday trips, no new transportation facilities or mitigation measures will be required.

UTILITIES

- The applicant has submitted a Stormwater Plan (**Exhibit 4F**), Sanitary Plan (**Exhibit 4G**), Water Plan (**Exhibit 4H**), and Stormwater Report (**Exhibit 6**) to illustrate the proposed utility provision scheme.
- There is currently an 8-inch concrete sewer main in SE Maple Street and an 8-inch polyvinyl chloride (PVC) sewer main in SE 6th Court. The applicant proposes to extend each of these mains into the development following the route of the extended streets and install new 4-inch laterals to serve each new lot.
- The applicant has submitted a Stormwater Plan (**Exhibit 4F**) and Stormwater Report (**Exhibit 6**) to illustrate the proposed stormwater management scheme. There is currently an existing 12-inch PVC stormwater main in SE 6th Court, within the Thomspon Woods subdivision. The applicant is proposing to extend this main at an upsized 48 inches within the proposed

northerly extension of SE 6th Court and downsize to 12 inches at the intersection with the proposed easterly extension of SE Maple Street. Several catch basins are proposed along the new street extensions for public stormwater collection. For private stormwater management, the applicant is proposing to establish a 10-foot stormwater easement in the rear of each lot, northern edge of Lot 7, and centered on the property line between Lots 3 and 4. The easement would allow for a 2-foot backyard infiltration trench to be installed to collect roof and foundation drainage via 4-inch stormwater laterals in each lot. Stormwater will be conveyed from the back lot trenches to the stormwater main via 6-inch overflow conveyance pipes. The existing stormwater main in SE 6th Court is routed to the Thompson Woods stormwater facility, which is owned and maintained by the Thompson Woods Homeowenrs' Association (HOA). When Thompson Woods Subdivision (local file # SB2-21) was approved on November 10, 2021, the street connection proposed in the current Maple Street Subdivision was not anticipated by the Maple Street Cottages development at the time or the City's TSP and therefore, the applicant was not required to consider upstream flows from the subject site. Since stormwater from the Maple Street Subdivision will be routed to the Thompson Woods stormwater facility and these flows were not considered when the facility was designed, the applicant shall provide the following to the City: A) evidence of Thompson Woods HOA's acceptance of the increased amount of stormwater directed to its facility, B) a downstream analysis that fully complies with Public Works Design Standards (PWDS) Section 2.0027 and concludes that the facility has the capacity to accommodate the additional stormwater from applicant's proposed subdivision, and C) shared maintenance terms for the facility between the applicant and Thompson Woods HOA, if required by the Thompson Woods HOA. If any of these conditions cannot be satisfied and/or the applicant proposes to route stormwater elsewhere, the applicant shall submit an alternate stormwater management design in conformance with the PWDS for review and approval by the City Engineer.

- There is currently an 8-inch PVC water main in SE Maple Street and an 8-inch C900 water main in SE 6th Court. The applicant proposes to extend each of these mains into the development following the route of the extended streets and install new 1-inch laterals to serve each new lot.

LANDSCAPING, SCREENING, AND STREET TREES

- The applicant is proposing to plant 9 Autumn Brilliance Serviceberry street trees along the SE Maple Street frontage and 6 Autumn Brilliance Serviceberry street trees along the SE 6th Court frontage (see **Exhibit 4I**). The species is on the City's Approved Street Tree List[3] and is placed in an appropriately sized planter strip for the species.

PUBLIC AND PRIVATE AGENCIES

- The City of Scappoose City Manager, Public Works Director, Police Chief, Columbia County Building Official, Scappoose Rural Fire Protection District, Columbia River PUD, and Scappoose School District Superintendent have been provided an opportunity to review and

[3] City of Scappoose, Approved Street Trees, page 3.

comment on the proposal. The City Engineer's comments are incorporated throughout this report.

- The Columbia County Building Official provided a referral comment (**Exhibit 8**) stating that they have reviewed the application and have no objection to its approval as submitted.
- The Columbia River PUD provided a referral comment (**Exhibit 9**) stating that the design for streetlighting must be approved by the City Engineer prior to the PUD providing a cost estimate.
- The City of Scappoose Public Works Director provided a referral comment (**Exhibit 10**) stating that they have reviewed the application and have no objection to its approval provided it meets the applicable criteria.
- The Scappoose School District Superintendent provided a referral comment (**Exhibit 11**) stating that they have reviewed the application and have no objection to its approval as submitted.
- Notice of the application was mailed to property owners within 100 feet of the subject site on January 8, 2026. As of the date of this report, there have been no comments made by the public.

FINDINGS OF FACT

The following sections of the Scappoose Municipal Code are applicable to this request:

Chapter 17.50
R-4 MODERATE DENSITY RESIDENTIAL

17.50.030 Permitted and Conditional uses.

Use	
[…]	*[…]*
Townhouse, limited to a maximum of four attached townhomes	*Permitted outright*[1]
[…]	*[…]*

1 *These uses and their accessory uses are permitted in the R-4 zone outright outside of the Scappoose Creek Flood Plain. In the R-4 zone within the Scappoose Creek Flood Plain only uses listed in Section 17.84.040 shall be permitted.*
[…]

Finding: The applicant is proposing to subdivide the subject site into 14 lots to support a townhouse on each lot (see **Exhibit 4C**). Townhouses are outright permitted in the R-4 zone. Lots 1-3, 4-6, 7-10, and 11-14 are proposed to be four respective structures of 3, 3, 4, and 4 townhouses (see **Exhibit 4C**), satisfying the maximum number of attached townhomes. The subject site is not within the 100-year floodplain. Section 17.78.030 is satisfied.

17.50.050 Dimensional requirements.

Dimensional Requirements	***Requirement[1]***
Minimum lot area:	
Outside of the Scappoose Creek Flood Plain	
[…]	*[…]*
Townhouse	*Seven thousand square feet for the first two attached units and two thousand square feet for each additional unit*
[…]	*[…]*
Minimum lot width	
[…]	*[…]*
Townhouse	*Twenty-five feet per unit*
[…]	*[…]*

Finding: The applicant submitted a Preliminary Site Plan (**Exhibit 4C**), which demonstrates compliance with the preliminary lot dimensions as summarized in the table below. Building dimensional requirements such as setbacks, height, and building coverage will be evaluated during building permit review.

Category	**Proposed**	**Determination**
Lot area	Lots 1-3: 10,222 sq. ft. Lots 4-6: 10,219 sq. ft. Lots 7-10: 14,248 sq. ft. Lots 11-14: 14,122 sq. ft.	Satisfied
Lot width	Lowest: 25 ft.	Satisfied

Section 17.50.050 is satisfied.

Chapter 17.104
STREET TREES

17.104.040 Standards for street trees.

A. Street trees shall be selected from the approved street tree list on file with the Planning Department.

Finding: The applicant is proposing to plant Autumn Brilliance Serviceberry street trees (see **Exhibit 4I**), which are on the Approved Street Tree List[4]. Section 17.104.040(A) is satisfied.

B. At the time of planting, street trees shall not be less than ten feet high for deciduous trees and five feet high for evergreen trees.

Finding: The recommended conditions of approval will require the street trees to be a minimum height of 10 feet at the time of planting. Section 17.104.040(B) is satisfied.

[4] City of Scappoose, Approved Street Trees, page 3.

C. Spacing and minimum planting areas for street trees shall be as follows:

1. Street trees under twenty-five feet tall and less than sixteen feet wide at maturity shall be spaced no further than fifteen feet apart in planting areas containing no less than sixteen square feet of porous surface and not less than four feet wide;

2. Street trees under twenty-five feet tall and greater than sixteen feet wide at maturity shall be spaced no further than twenty feet apart in planting areas containing no less than sixteen square feet of porous surface and not less than four feet wide;

3. Street trees between twenty-five feet to forty feet tall and less than twenty-five feet wide at maturity shall be spaced no greater than twenty-five feet apart in planting areas containing no less than twenty-four square feet of porous surface and not less than six feet wide;

4. Street trees between twenty-five feet to forty feet tall and greater than twenty-five feet wide at maturity shall be spaced no greater than thirty feet apart in planting areas containing no less than twenty-four square feet of porous surface and not less than six feet wide;

5. Street trees greater than forty feet tall at maturity shall be spaced no greater than forty feet apart in planting areas containing not less than thirty-six square feet of porous surface and not less than eight feet wide.

Finding: Autumn Brilliance Serviceberries are 25 feet tall and 20 feet wide at maturity, triggering the spacing criteria of subsection 3. The applicant submitted a Landscape Plan (**Exhibit 4I**) detailing the proposed plantings. All but two of the street trees are proposed to be in their own small planter strip so spacing requirements are not generally applicable. The two street trees in the same planer strip on SE Maple Street are spaced 20 feet apart on center. Section 17.104.040(C) is satisfied.

D. Street trees located under or within ten feet of overhead utility lines shall be less than twenty-five feet tall at maturity.

Finding: There are no existing or proposed overhead utility lines within the development (see **Exhibit 4C**). Section 17.104.040(D) is not applicable.

E. Street trees shall be planted in accordance with the requirements of Scappoose Municipal Code Section 13.28.020(C).

Finding: The recommended conditions of approval will require the applicant to plant street trees in accordance with Section 13.28.020(C). Section 17.104.040(E) is satisfied.

17.104.060 Maintenance of street trees.

A. The adjacent owner, tenant, and their agent, if any, shall be jointly and severally responsible for the maintenance of all street trees which shall be maintained in good condition so as to present a healthy, neat and orderly appearance and tree wells shall be kept free from refuse and debris.

B. All street trees shall be controlled by pruning to National Arborist Association Pruning Standards for Shade Trees included as Appendix B of the Scappoose Comprehensive Urban Forestry Plan.
C. Every owner of any tree overhanging any street or right-of-way within the city shall prune the branches so that such branches shall not severely obstruct the light from any street lamp or obstruct the view of any street intersection and so that there shall be a clear space of thirteen feet above street surface or eight feet above the sidewalk surface. Such owners shall remove all dead, diseased or dangerous trees, or broken or decayed limbs which constitute a menace to the safety of the public. The city shall have the right to prune any tree or shrub on private property when it interferes with the proper spread of light along the street from a street light, or interferes with visibility of any traffic-control device or sign or sight triangle at intersections as defined in Scappoose Municipal Code 12.10, Visual Clearance Areas. Tree limbs that grow near high voltage electrical conductors shall be maintained clear of such conductors by the electric utility company in compliance with any applicable franchise agreements.
D. The city shall have the right to plant, prune, and otherwise maintain trees, plants and shrubs within the lines of all streets, alleys, avenues, lanes, as may be necessary to insure public safety or to preserve or enhance the symmetry and beauty of such public grounds.
E. It is unlawful as a normal practice for any person, firm or city department to top any street tree. Topping is defined as the severe cutting back of limbs within the tree's crown to such a degree so as to remove the normal canopy and disfigure the tree. Trees severely damaged by storms or other causes, or certain trees under utility wires or other obstructions where other pruning practices are impractical may be exempted from this chapter at the determination of the city manager after consultation with a registered arborist or certified forester.

Finding: The applicant stated in their Narrative (**Exhibit 3, pp. 9-10**) that they acknowledge and accept the maintenance obligation of this section. Upon construction and sale of the homes, the adjacent homeowner and/or homeowner's association will be responsible for maintenance of street trees. Section 17.104.060 is satisfied.

Chapter 17.150
LAND DIVISION–SUBDIVISION

17.150.020 General provisions.
A. An application for a subdivision shall be processed through a two-step process, the tentative plan and the final plat:
1. The tentative plan shall be approved by the planning commission before the final plat can be submitted for approval consideration; and
2. The final plat shall reflect all conditions of approval of the tentative plan.

Finding: The applicant has submitted a Preliminary Site Plan (**Exhibit 4C**) to be reviewed for approval by the Planning Commission. The final plat will then be reviewed by staff for conformance with the conditions of approval. Section 17.150.020(A) is satisfied.

B. All subdivision proposals shall be in conformity with all state regulations set forth in ORS Chapter 92, Subdivisions and Partitions.

Finding: The recommended Conditions of approval will require the applicant to comply with Oregon Revised Statutes (ORS) Chapter 92, Subdivisions and Partitions. Section 17.150.020(B) is satisfied.

C. When subdividing tracts into large lots, the planning commission shall require that the lots be of such size and shape as to facilitate future re-division in accordance with the requirements of the zoning district and this title.
[…]

Finding: The largest proposed lot is 4,116 square feet (see **Exhibit 4C**), which is not large enough to be further subdivided. Section 17.150.020(C) is not applicable.

E. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located to minimize flood damage and constructed according to public works design standards and specifications.

Finding: The subject site is not within the 100-year floodplain and the existing and proposed utilities pose no additional threat of flood damage. The recommended conditions of approval will require the applicant to construct all utilities according to the PWDS. Section 17.150.020(E) is satisfied.

F. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.
[…]

Finding: The applicant has submitted a Stormwater Plan (**Exhibit 4F**) and Stormwater Report (**Exhibit 6**) to illustrate the proposed stormwater management scheme. There is currently an existing 12-inch PVC stormwater main in SE 6th Court, within the Thomspon Woods subdivision. The applicant is proposing to extend this main at an upsized 48 inches within the proposed northerly extension of SE 6th Court and downsize to 12 inches at the intersection with the proposed easterly extension of SE Maple Street. Several catch basins are proposed along the new street extensions for public stormwater collection. For private stormwater management, the applicant is proposing to establish a 10-foot stormwater easement in the rear of each lot, northern edge of Lot 7, and centered on the property line between Lots 3 and 4. The easement would allow for a 2-foot backyard infiltration trench to be installed to collect roof and foundation drainage via 4-inch stormwater laterals in each lot. Stormwater will be conveyed from the back lot trenches to the stormwater main via 6-inch overflow conveyance pipes. The existing stormwater main in SE 6th Court is routed to the Thompson Woods stormwater facility, which is owned and maintained by the Thompson Woods HOA. When Thompson Woods Subdivision (local file # SB2-21) was approved on November 10, 2021, the street connection proposed in the

current Maple Street Subdivision was not anticipated by the Maple Street Cottages development at the time or the City's TSP and therefore, the applicant was not required to consider upstream flows from the subject site. Since stormwater from the Maple Street Subdivision will be routed to the Thompson Woods stormwater facility and these flows were not considered when the facility was designed, the applicant shall provide the following to the City: A) evidence of Thompson Woods HOA's acceptance of the increased amount of stormwater directed to its facility, B) a downstream analysis that fully complies with PWDS Section 2.0027 and concludes that the facility has the capacity to accommodate the additional stormwater from applicant's proposed subdivision, and C) shared maintenance terms for the facility between the applicant and Thompson Woods HOA, if required by the Thompson Woods HOA. If any of these conditions cannot be satisfied and/or the applicant proposes to route stormwater elsewhere, the applicant shall submit an alternate stormwater management design in conformance with the PWDS for review and approval by the City Engineer. Section 17.150.020(F) is satisfied.

H. All subdivision proposals shall include neighborhood circulation plans that conceptualize future street plans and lot patterns to parcels within five hundred feet of the subject site. Circulation plans address future vehicular/bicycle/pedestrian transportation systems including bike lanes, sidewalks, bicycle/pedestrian paths, and destination points and must meet the criteria in 17.120(Q). A circulation plan is conceptual in that its adoption does not establish a precise alignment.

Finding: The applicant submitted a Future Access and Circulation Plan (**Exhibit 4J**). The placement of streets and lots in the proposed development allows for SE Maple Street to be further extended to the east in the future for efficient development of existing large residential parcels. Section 17.150.020(H) is satisfied.

17.150.040 Expiration of approval–Standards for extension of time.

A. The tentative plan approval by the planning commission shall lapse if:

1. A final plat has not been submitted within a one-year period; or

2. The final plat does not conform to the tentative plan as approved or approved with conditions.

B. The planner may, upon written request by the applicant, grant one extension of the approval period not to exceed one year, provided that:

1. No changes are made on the original tentative plan as approved by the planning commission;

2. The applicant has expressed written intent of submitting a final plat within the one-year extension period;

3. There have been no changes to the applicable comprehensive plan policies and ordinance provisions on which the approval was based; and

4. An extension of time will not preclude the development of abutting properties.

C. Notice of the decision regarding the extension shall be provided to the applicant. The planner's decision may be appealed by the applicant.

Finding: If approved by the Planning Commission on January 22, 2026, the approval for the preliminary plat shall be effective until January 22, 2027. Preliminary approval will be revoked if the final plat has not been submitted within one year or the final plat does not conform to the preliminary plat as approved, including the conditions of approval. Extension of approval may be granted by the planner if the provided criteria are met. Following a decision by the Planning Commission, notice will be sent to the applicant and others entitled to notice. Section 17.150.040 is satisfied.

17.150.060 Approval standards–Tentative plan.

A. The planning commission may approve, approve with conditions or deny a tentative plan based on the following approval criteria:

1. The proposed tentative plan shall comply with the city's comprehensive plan, the applicable chapters of this title, the public works design standards, and other applicable ordinances and regulations;

Finding: The Preliminary Site Plan (**Exhibit 4K**) submitted by the applicant conforms to the standards of the Comprehensive Plan, Municipal Code, PWDS, and all other applicable standards as discussed throughout this staff report. Section 17.150.060(A)(1) is satisfied.

2. The proposed plat name is not duplicative and otherwise satisfies the provisions of ORS Chapter 92.090(1);

Finding: The applicant has not yet proposed a name for the subdivision plat (see **Exhibit 3, p. 11**). The applicant will be required by the recommended conditions of approval to confirm with the County Surveyor that the name for the subdivision plat is acceptable prior to recording the final plat. Section 17.150.060(A)(2) is satisfied.

3. The streets and roads are laid out so as to conform to the plats of subdivisions and maps of major partitions already approved for adjoining property as to width, general direction and in all other respects, including conformance with neighborhood circulation plans, unless the city determines it is in the public interest to modify the street or road pattern; and

Finding: SE Maple Street is proposed to continue its existing alignment eastward and SE 6th Court is proposed to continue its existing alignment northward (see **Exhibit 4C**). The proposed streets meet the dimensional requirements for a Local Street as set by the TSP; see findings to Section 17.154.030. The applicant submitted a Future Access and Circulation Plan (**Exhibit 4J**) that demonstrates the possibility of future continuation of logical and efficient residential development. Section 17.150.060(A)(3) is satisfied.

4. An explanation has been provided for all public improvements.

Finding: The applicant has submitted a Narrative (**Exhibit 3**), Stormwater Plan (**Exhibit 4F**),

Sanitary Plan (**Exhibit 4G**), Water Plan (**Exhibit 4H**), and Stormwater Report (**Exhibit 6**) to propose their plan for all public improvements. Section 17.150.060(A)(4) is satisfied.

B. The planning commission may attach such conditions as are necessary to carry out the comprehensive plan and other applicable ordinances and regulations and may require reserve strips be granted to the city for the purpose of controlling access to adjoining undeveloped properties.

Finding: This staff report includes recommended conditions of approval, which the Planning Commission may adopt in order to carry out all the applicable requirements of this proposal. Section 17.150.060(B) is satisfied.

Chapter 17.154
STREET AND UTILITY IMPROVEMENT STANDARDS

17.154.030 Streets.

A. No development shall occur unless the development has frontage or approved access to a public street:

1. Streets within a development and streets adjacent to a development shall be improved in accordance with this title and the public works design standards and specifications.

2. Any new street or additional street width planned as a portion of an approved street plan shall be dedicated and improved in accordance with this title and the public works design standards and specifications.

3. Subject to approval of the city engineer and the planner, the planner may accept and record a non-remonstrance agreement in lieu of street improvements if two or more of the following conditions exist:

a. A partial improvement is not feasible due to the inability to achieve a cohesive design for the overall street;

b. A partial improvement may create a potential safety hazard to motorists or pedestrians;

c. Due to the nature of existing development on adjacent properties it is unlikely that street improvements would be extended in the foreseeable future and the improvement associated with the project under review does not, by itself, provide a significant improvement to street safety or capacity;

d. The improvement would be in conflict with an adopted capital improvement plan;

e. Additional planning work is required to define the appropriate design standards for the street and the application is for a project which would contribute only a minor portion of the anticipated future traffic on the street.

Finding: The subject site abuts the eastern terminus of SE Maple Street and northern terminus

of SE 6th Court. The applicable sections of both streets are classified by the TSP[5] as Local Streets, which require 54 feet of right-of-way width comprised of 32 feet of vehicular travel way & parking, two 5.5-foot planter strips, two 5-foot sidewalks, and two 6-inch utility areas. SE Maple Street currently has a right-of-way width of 60 feet and a paved width of ~43.8 feet but does not have sidewalks (see **Exhibit 4B**). The applicant is proposing to extend SE Maple Street eastward into their site, maintaining a 60-foot right-of-way width and downsizing to a 36-foot paved section to plant street trees in a 5-foot planter strip install 6-foot sidewalks (see **Exhibit 4C**). The planter strip is substandard as proposed; however, this section of SE Maple Street will likely be classified as a Collector, which requires a 36-foot paved section and 6-foot sidewalks, in the next TSP update so a 5-foot planter strip is acceptable to accommodate this. SE 6th Court currently has a right-of-way width of 54 feet and a paved width of 32 feet (see **Exhibit 4B**). The applicant is proposing to extend SE 6th Court northward into their site; however, private property to the east of the subject site (Tax Lot 4500) that is not part of the proposed development prevents this extension from maintaining a full 54-foot right-of-way width. Rather than create an offset continuation of SE 6th Court, the City is requiring that the extension be built out to the highest Local Street standard possible within the available right-of-way while maintaining the existing alignment. The applicant is proposing to extend SE 6th Court with a 45.69-foot right-of-way width, 32-foot paved section, 5-foot planter strip on the west, and 5-foot sidewalk on the west (see **Exhibit 4C**). The east side of the street will include curb but no planter strip or sidewalk. Although the proposed western planter strip width is substandard by 0.5 feet, the alignment with the existing section of SE 6th Court takes priority and is approvable as is. Section 17.154.030(A) is satisfied.

B. Rights-of-way shall be created through the approval of a final subdivision plat or major partition; however, the council may approve the creation of a street by acceptance of a deed, provided that such street is deemed essential by the council for the purpose of general traffic circulation:

[…]

Finding: The applicant is proposing to create rights-of-way through the standard Subdivision approval process, including recording a final plat at some point after this preliminary approval. Section 17.154.030(B) is satisfied.

C. The planning commission may approve an access easement established by deed without full compliance with this title provided such an easement is the only reasonable method by which a lot large enough to develop can develop:

1. Vehicular access easements which exceed one hundred fifty feet shall be improved in accordance with the Uniform Fire Code.

2. Vehicular access shall be improved in accordance with the public works design standards.

[5] City of Scappoose, Transportation System Plan: Volume 1, 2016, Figures 12 & 13a.

Finding: The applicant is not proposing an access easement (see **Exhibit 4C**) nor will one be required. Every lot will have direct access to a right-of-way. Section 17.154.030(C) is satisfied.

D. The location, width and grade of all streets shall conform to an approved street plan and shall be considered in their relation to existing and planned streets, to topographic conditions, to public convenience and safety, and in their appropriate relation to the proposed use of the land to be served by such streets:

1. Street grades shall be approved by the public works director in accordance with the city's public works design standards; and

2. Where the location of a street is not shown in an approved street plan, the arrangement of streets in a development shall either:

a. Provide for the continuation or appropriate projection of existing streets in the surrounding areas, or

b. Conform to a plan adopted by the council, if it is impractical to conform to existing street patterns because of particular topographical or other existing conditions of the land. Such a plan shall be based on the type of land use to be served, the volume of traffic, the capacity of adjoining streets and the need for public convenience and safety.

3. New streets shall be laid out to provide reasonably direct and convenient routes for walking and cycling within neighborhoods and accessing adjacent development.

E. The street right-of-way and roadway widths shall not be less than the minimum widths described in the city's public works design standards.

Finding: The property has frontage on SE Maple Street and SE 6th Court. Both streets are classified by the TSP[6] as Local Streets, which require 54 feet of right-of-way width and a 32-foot paved section. Within the subdivision, SE Maple Street is proposed to have a right-of-way width of 60 feet and a 36-foot paved section (see **Exhibit 4C**). The existing portion of SE 6th Court south of the development has a standard 54-foot right-of-way and a 32-foot paved section (see **Exhibit 4B**); however, a parcel to the east of the subject site (Tax Lot 4500) that is not part of the development prevents the northward extension of the street from having a full right-of-way width. The City will require that the applicant build out the street to the fullest extent possible while maintaining the existing alignment of SE 6th Court. The applicant is proposing to extend SE 6th Court within the subdivision with a right-of-way width of 45.69 feet and a full 32-foot paved section (see **Exhibit 4C**). Section 17.154.030 (D-E) is satisfied.

F. Where necessary to give access or permit a satisfactory future division of adjoining land, streets shall be extended to the boundary lines of the tract to be developed. A reserve strip across the end of a dedicated street shall be deeded to the city; and a barricade shall be constructed at the end of the street by the property owners which shall not be removed until authorized by the public works director, the cost of which shall be included in the street construction cost.

[6] City of Scappoose, Transportation System Plan: Volume 1, 2016, Figures 12 & 13a.

Finding: Following the extensions of each, SE Maple Street would terminate at a large residential property currently outside of City limits and SE 6th Court would terminate at Lots 1 and 2 of this Subdivision (see **Exhibit 4C**). The applicant's Future Access and Circulation Plan (**Exhibit 4J**) shows a further eastward extension of SE Maple Street as a future possibility. In conformance with this section, the applicant has stated that they will deed a reserve strip at the eastern terminus of SE Maple Street to the City and install an end-of-road barricade here as well (see **Exhibit 3, p. 14**). The City no longer requires a reserve strip be deeded to the City as it then requires the City to dedicate this strip as right of way later, which is an unnecessary step. The recommended conditions of approval will require the applicant to install an end-of-road barricade at the eastern terminus of SE Maple Street. Section 17.154.030(F) is satisfied.

G. No street name shall be used which will duplicate or be confused with the names of existing streets within the city's urban growth boundary, except for extensions of existing streets. Street names and numbers are subject to review and approval the Scappoose rural fire district.
Finding: The applicant is proposing to maintain the street names for the extension of the two existing streets, SE Maple Street and SE 6th Court (see **Exhibit 4C**). Section 17.154.030(G) is satisfied.

H. Concrete vertical curbs, curb cuts, wheelchair, bicycle ramps and driveway approaches shall be constructed in accordance with standards specified in this chapter and the city's public works design standards. Concrete curbs and driveway approaches are required and shall be built to the city's configuration standards.
[…]

Finding: The applicant will be required by the recommended conditions of approval to construct all curbs, ramps, and driveways in accordance with the PWDS. Section 17.154.030(H) is satisfied.

K. Upon completion of a street improvement and prior to acceptance by the city, it shall be the responsibility of the developer's registered professional land surveyor to provide certification to the city that all boundary and interior monuments shall be established or re-established, protected and recorded.
[…]

Finding: The recommended conditions of approval will require the applicant's surveyor to verify with the City that monuments are properly placed following the completion of street improvements. Section 17.154.030(K) is satisfied.

O. The developer shall install all street signs, relative to traffic control and street names, as specified by the public works director for any development. The cost of signs shall be the responsibility of the developer.

Finding: The recommended conditions of approval state that any street signs required by the City Engineer will be installed at the cost and labor of the applicant. Section 17.154.030(O) is satisfied.

P. Joint mailbox facilities shall be provided in all residential developments, with each joint mailbox serving at least two dwelling units.

1. Joint mailbox structures shall be placed adjacent to roadway curbs and shall comply with provisions of the Americans with Disabilities Act and implementing federal and state regulations;

2. Proposed locations of joint mailboxes shall be designated on a copy of the tentative plan, and shall be approved by the U.S. Post Office prior to plan approval; and

3. Plans for the joint mailbox structures to be used shall be submitted for approval by the planner prior to final approval.

Finding: The applicant is proposing to establish one joint mailbox to the north of Lot 7 to serve the entire subdivision (see **Exhibit 4C**). The mailbox is proposed to be placed between two planter strips to avoid disrupting sidewalk accessibility (see **Exhibit 4C**), in conformance with the Americans with Disabilities Act (ADA). The recommended conditions of approval will require the Scappoose Postmaster to approve the location of the mailboxes prior to final plat approval. Section 17.154.030(P) is satisfied.

Q. The location of traffic signals shall be noted on approved street plans, and where a proposed street intersection will result in an immediate need for a traffic signal, a city-approved signal shall be installed. The cost shall be included as a condition of development.

Finding: The Trip Generation Analysis (**Exhibit 5**) does not indicate the need for a traffic signal at a nearby intersection nor does the City's TSP. Section 17.154.030(Q) is satisfied.

R. Street lights shall be installed in accordance with the city's public works design standards.

Finding: The applicant is proposing to install four new streetlights throughout the subdivision, roughly spaced at 100-foot intervals (see **Exhibit 4C**). Section 17.154.030(R) is satisfied.

S. A Transportation Impact Study (TIS) must be submitted with a land use application if the conditions in (1) or (2) apply in order to determine whether conditions are needed to protect and minimize impacts to transportation facilities, consistent with Section 660-012-0045(2)(b) and (e) of the State Transportation Planning Rule.

1. Applicability - TIS letter. A TIS letter shall be required to be submitted with a land use application to document the expected vehicle trip generation of the proposal. The expected number of trips shall be documented in both total peak hour trips and total daily trips. Trip generation shall be estimated for the proposed project using the latest edition of the Institute of Engineers Trip Generation Manual or, when verified with the City prior to use, trip generation surveys conducted at similar facilities.

2. Applicability - TIS report. A TIS report shall be required to be submitted with a land use application if the proposal is expected to involve one or more of the following:

a. The proposed development would generate more than 10 peak hour trips or more than 100 daily trips.

b. The proposal is immediately adjacent to an intersection that is functioning at a poor level of service, as determined by the city engineer.

c. A new direct approach to US 30 is proposed.

d. A proposed development or land use action that the road authority states may contribute to operational or safety concerns on its facility(ies).

e. An amendment to the Scappoose Comprehensive Plan or Zoning Map is proposed.

3. Consistent with the city's Traffic Impact Study (TIS) Guidelines, the city engineer will determine the project study area, intersections for analysis, scenarios to be evaluated and any other pertinent information concerning the study and what must be addressed in either a TIS letter or a TIS report.

4. Approval Criteria. When a TIS Letter or Report is required, a proposal is subject to the following criteria:

a. The TIS addresses the applicable elements identified by the city engineer, consistent with the Traffic Impact Study Guidelines;

b. The TIS demonstrates that adequate transportation facilities exist to serve the proposed development or, in the case of a TIS report, identifies mitigation measures that resolve identified traffic safety problems in a manner that is satisfactory to the city engineer and, when state highway facilities are affected, to ODOT;

c. For affected non-highway facilities, the TIS report establishes that mobility standards adopted by the city have been met; and

d. Proposed public improvements are designed and will be constructed consistent with Public Works Design Standards and access standards in the Transportation System Plan

5. Conditions of Approval.

a. The city may deny, approve, or approve a proposal with conditions necessary to meet operational and safety standards; provide the necessary right-of-way for improvements; and to require construction of improvements to ensure consistency with the future planned transportation system.

b. Construction of off-site improvements may be required to mitigate impacts resulting from development that relate to capacity deficiencies and public safety; and/or to upgrade or construct public facilities to city standards.

c. Improvements required as a condition of development approval, when not voluntarily provided by the applicant, shall be roughly proportional to the impact of the development on transportation facilities. Findings in the development approval shall indicate how the required improvements directly relate to and are roughly proportional to the impact of development.

Finding: The applicant submitted a Trip Generation Analysis (**Exhibit 5**), which provides the anticipated number of daily trips, including morning and evening peak hour trips, of the proposed development. The 14 single-family attached houses are anticipated to generate 57 daily weekday trips, including 2 morning peak hour trips and 7 evening peak hour trips. Due to the low volume

of expected daily weekday trips, no new transportation facilities or mitigation measures will be required. Section 17.154.030(S) is satisfied.

17.154.040 Blocks.
A. The length width, and shape of blocks shall be designed with regard to providing adequate building sites for the use contemplated, consideration of needs for safe and convenient pedestrian and vehicular access and circulation and recognition of limitations and opportunities of topography.
B. Except for arterial streets, no block face shall be more than five hundred and thirty (530) feet in length between street corner lines and no block perimeter formed by the intersection of pedestrian access ways and local, collector and arterial streets shall be more than one thousand five hundred feet in length. If the maximum block size is exceeded, mid-block pedestrian and bicycle access ways should be provided at spacing no more than 330 feet, unless one or all of the conditions in Subsection C can be met. Minimum access spacing along an arterial street must meet the standards in the city's adopted Transportation System Plan. A block shall have sufficient width to provide for two tiers of building sites. Reverse frontage on arterial streets may be required by the planning commission.
C. Exemptions from requirement of Subsection B of this section may be allowed, upon approval by the planner and the city engineer, where one or all of the following conditions apply:
[…]

Finding: The applicant is proposing to extend SE Maple Street and SE 6th Court as part of this Subdivision, subjecting them to these standards. As proposed, the SE Maple Street block would be 205 feet between SE Cypress Court and SE 6th Court (as extended) and the SE 6th Court block would be 526 feet between SE Maple Street (as extended) and SE Elm Street (see **Exhibit 3, p. 16**). Section 17.154.040 is satisfied.

17.154.050 Easements.
A. Easements for sewers, drainage, water mains electric lines or other public utilities shall be either dedicated or provided for in the deed restrictions, and where a subdivision is traversed by a watercourse, drainageway, channel or stream, there shall be provided a stormwater easement or drainage right-of-way conforming substantially with lines of such watercourse and such further width as will be adequate for conveyance and maintenance.
B. A property owner proposing a development shall make arrangements with the city, the applicable district and each utility franchise for the provision and dedication of utility easements necessary to provide full services to the development.

Finding: The applicant is proposing to establish an 8-foot public utility easement (PUE) on each proposed lot where they front a public street (see **Exhibit 4C**). Additionally, they are proposing to establish a 10-foot stormwater easement in the rear of each lot, northern edge of Lot 7, and centered on the property line between Lots 3 and 4 (see **Exhibit 4F**). The easement would allow for a 2-foot backyard infiltration trench to be installed to collect roof and foundation drainage (see **Exhibit 4F**). The recommended conditions of approval will require the applicant to depict

these easements on the final plat. Section 17.154.050 is satisfied.

17.154.070 Sidewalks.
A. Sidewalks are required and shall be constructed, replaced or repaired in accordance with the city's public works design standards.
B. Maintenance of sidewalks and curbs in the continuing obligation of the adjacent property owner.
C. Subject to approval by the public works director and planner, planner may accept and record a nonremonstrance agreement for the required sidewalks from the applicant for a building permit for a single-family residence when the public works director determines the construction of the sidewalk is impractical for one or more of the following reasons:
[…]
[…]

Finding: SE Maple Street and SE 6th Court are both classified by the TSP[7] as Local Streets, which require 5-foot-wide sidewalks. The applicant is proposing 6-foot sidewalks on SE Maple Street and 5-foot sidewalks on SE 6th Court (see **Exhibit 4C**). The applicant has stated in their Narrative (**Exhibit 3, p. 17**) that they understand and accept that maintenance of sidewalks and curbs will be the continuing obligation of the property owner. The applicant is not proposing a non-remonstrance agreement (see **Exhibit 3, p. 17**). Section 17.154.070 is satisfied.

17.154.090 Sanitary Sewers.
A. Sanitary sewers shall be installed to serve each new development and to connect developments to existing mains in accordance with the provisions set forth by the city's public works design standards and the adopted policies of the comprehensive plan.
B. The public works director shall approve all sanitary sewer plans and proposed systems prior to issuance of development permits involving sewer service.
C. Proposed sewer systems shall include consideration of additional development within the area as projected by the comprehensive plan and the wastewater treatment facility plan and potential flow upstream in the sewer sub-basin.
D. Applications shall be denied by the approval authority where a deficiency exists in the existing sewer system or portion thereof which cannot be rectified within the development and which if not rectified will result in a threat to public health or safety, surcharging of existing mains, or violations of state or federal standards pertaining to operation of the sewage treatment system.

Finding: The applicant has submitted a Sanitary Plan (**Exhibit 4G**) to illustrate the proposed sewer collection scheme. There is currently an 8-inch concrete sewer main in SE Maple Street and an 8-inch PVC sewer main in SE 6th Court. The applicant proposes to extend each of these mains into the development following the route of the extended streets and install new 4-inch laterals to serve each new lot. The City of Scappoose Public Works Director provided a referral comment (**Exhibit 10**) stating that they have reviewed the application, including the Sanitary Plan, and have

[7] City of Scappoose, Transportation System Plan: Volume 1, 2016, Figures 12 & 13a.

no objection to its approval provided it meets the applicable criteria. Section 17.154.090 is satisfied.

17.154.100 Storm Drainage.

A. The planner and public works director shall issue permits only where adequate provisions for stormwater and floodwater runoff have been made, and:

1. The stormwater drainage system shall be separate and independent of any sanitary sewage system.

2. Where possible, inlets shall be provided so surface water is not carried across any intersection or allowed to flood any street.

3. Surface water drainage patterns shall be shown on every development proposal plan.

4. All stormwater analysis and calculations shall be submitted with proposed plans for public works directors review and approval.

5. All stormwater construction materials shall be subject to approval of the public works director.

B. Where a subdivision is traversed by a watercourse, drainageway, channel or stream, there shall be provided a stormwater easement or drainage right-of-way conforming substantially with the lines of such watercourse and such further width as will be adequate for conveyance and maintenance.

C. A culvert or other drainage facility shall, and in each case be, large enough to accommodate potential runoff from its entire upstream drainage area, whether inside or outside the development. The public works director shall determine the necessary size of the facility.

D. Where it is anticipated by the public works director that the additional runoff resulting from the development will overload an existing drainage facility, the planner and engineer shall withhold approval of the development until provisions have been made for improvement of the potential condition or until provisions have been made for storage of additional runoff caused by the development.

Finding: The applicant has submitted a Stormwater Plan (**Exhibit 4F**) and Stormwater Report (**Exhibit 6**) to illustrate the proposed stormwater management scheme. There is currently an existing 12-inch PVC stormwater main in SE 6th Court, within the Thomspon Woods subdivision. The applicant is proposing to extend this main at an upsized 48 inches within the proposed northerly extension of SE 6th Court and downsize to 12 inches at the intersection with the proposed easterly extension of SE Maple Street. Several catch basins are proposed along the new street extensions for public stormwater collection. For private stormwater management, the applicant is proposing to establish a 10-foot stormwater easement in the rear of each lot, northern edge of Lot 7, and centered on the property line between Lots 3 and 4. The easement would allow for a 2-foot backyard infiltration trench to be installed to collect roof and foundation drainage via 4-inch stormwater laterals in each lot. Stormwater will be conveyed from the back lot trenches to the stormwater main via 6-inch overflow conveyance pipes. The existing stormwater main in SE 6th Court is routed to the Thompson Woods stormwater facility, which is owned and maintained by the Thompson Woods HOA. When Thompson Woods Subdivision (local file # SB2-21) was approved on November 10, 2021, the street connection proposed in the

current Maple Street Subdivision was not anticipated by the Maple Street Cottages development at the time or the City's TSP and therefore, the applicant was not required to consider upstream flows from the subject site. Since stormwater from the Maple Street Subdivision will be routed to the Thompson Woods stormwater facility and these flows were not considered when the facility was designed, the applicant shall provide the following to the City: A) evidence of Thompson Woods HOA's acceptance of the increased amount of stormwater directed to its facility, B) a downstream analysis that fully complies with PWDS Section 2.0027 and concludes that the facility has the capacity to accommodate the additional stormwater from applicant's proposed subdivision, and C) shared maintenance terms for the facility between the applicant and Thompson Woods HOA, if required by the Thompson Woods HOA. If any of these conditions cannot be satisfied and/or the applicant proposes to route stormwater elsewhere, the applicant shall submit an alternate stormwater management design in conformance with the PWDS for review and approval by the City Engineer. Section 17.154.100 is satisfied.

17.154.105 Water System.
The planner and public works director shall issue permits only where provisions for municipal water system extensions have been made, and:
A. Any water system extension shall be designed in compliance with the comprehensive plan existing water system plans.
B. Extensions shall be made in such a manner as to provide for adequate flow and gridding of the system.
C. The public works director shall approve all water system construction materials.

Finding: The applicant has submitted a Water Plan (**Exhibit 4H**) to illustrate the proposed water distribution scheme. There is currently an 8-inch PVC water main in SE Maple Street and an 8-inch C900 water main in SE 6th Court. The applicant proposes to extend each of these mains into the development following the route of the extended streets and install new 1-inch laterals to serve each new lot. Section 17.154.105 is satisfied.

17.154.107 Erosion Controls.
A. Any time the natural soils are disturbed and the potential for erosion exists, measures shall be taken to prevent the movement of any soils off site. The public works director shall determine if the potential for erosion exists and appropriate control measures.
B. The city shall use the city's public works design standards as the guidelines for erosion control.

Finding: The applicant submitted a Preliminary Grading and ESC (Erosion & Sediment Control) Plan (**Exhibit 4D**). The applicant is proposing erosion control measures including sediment fencing around the site, inlet protection around onsite and offsite catch basins, and rock construction entrances. The City of Scappoose Public Works Director provided a referral comment (**Exhibit 10**) stating that they have reviewed the application, including the Preliminary Grading and ESC Plan, and have no objection to its approval provided it meets the applicable criteria. Section 17.154.107 is satisfied.

17.154.120 Utilities.

A. All utility lines including, but not limited to those required for electric, communication, lighting and cable television services and related facilities shall be placed underground, except for surface mounted transformers, surface mounted connection boxes and meter cabinets which may be placed above ground, temporary utility service facilities during construction, high capacity electric lines operating at fifty thousand volts or above, and:

[…]

B. The applicant for a subdivision shall show on the development plan or in the explanatory information, easements for all underground utility facilities, and:

1. Plans showing the location of all underground facilities as described herein shall be submitted to the public works director for review and approval; and

2. Above ground equipment shall not obstruct visual clearance areas for vehicular traffic.

Finding: There are no existing or proposed overhead utility lines within the development or adjacent to it (see **Exhibit 4C**). Underground utilities will be placed in either the public right-of-way, PUE, or stormwater easements (see **Exhibit 4C**) and will be required by the recommended conditions of approval to be shown on the final plat. Section 17.154.120 is satisfied.

17.154.130 Cash or bond required.

A. All improvements installed by the applicant shall be guaranteed as to workmanship and material for a period of one year following acceptance by the city council.

B. Such guarantee shall be secured by cash deposit or bond for one hundred ten percent of the actual cost of the value of the improvements as set by the public works director.

C. The cash or bond shall comply with the terms and conditions of Section 17.150.180.

Finding: The applicant will be required by the recommended conditions of approval to submit to the City a performance bond of 110% of the value of all public improvements. The value will be determined by the Public Works Director. Section 17.154.130 is satisfied.

Chapter 17.164
PROCEDURES FOR DECISION MAKING–LIMITED LAND USE DECISIONS

17.164.110 Approval authority responsibilities.

[…]

B. The planning commission shall have the authority to approve, deny or approve with conditions the following applications:

1. Subdivisions pursuant to Chapter 17.150.

[…]

C. The decision shall be based on the approval criteria set forth in Section 17.164.150.

Finding: Since this is a proposal for a preliminary Subdivision plat approval (**Exhibit 2**), Planning Commission will be the approval authority. Section 17.164.110 is satisfied.

17.164.130 Notice requirements.

[…]

J. Notice shall also be given by the planner to any governmental agency affected by the decision, which may include any of the following:

1. *Columbia County Land Development Services;*
2. *Columbia County Road Department;*
3. *Oregon Department of Transportation (ODOT);*
4. *ODOT Rail Division;*
5. *Portland & Western Railroad;*
6. *Scappoose Rural Fire Protection District;*
7. *Port of St. Helens;*
8. *Oregon Department of Aviation;*
9. *Scappoose School District;*
10. *Columbia County Soil Conservation District;*
11. *Scappoose Drainage Improvement Company; or*
12. *Any other affected agencies as identified by the planner.*

Finding: A land use action referral was sent to agency representatives from the City of Scappoose, Columbia County, Scappoose Rural Fire Protection District, Columbia River PUD, and Scappoose School District. Section 17.164.130 is satisfied.

17.164.150 Decision process.

A. The decision shall be based on proof by the applicant that the application fully complies with:

1. *The city comprehensive plan; and*
2. *The relevant approval standards found in the applicable chapter(s) of this title and other applicable implementing ordinances;*

B. Consideration may also be given to:

1. *Proof of a substantial change in circumstances; and*
2. *Factual written statements from the parties, other persons and other governmental agencies relevant to the existing conditions, other applicable standards and criteria, possible negative or positive attributes of the proposal or factors in subsections (A) or (B)(1) of this section.*

Finding: The applicant has submitted a complete proposal for preliminary Subdivision plat. Findings related to the approval criteria have been addressed within this staff report. The recommended conditions of approval are included to ensure the satisfaction of all applicable approval criteria and the requirements of other governmental agencies. Section 17.164.150 is satisfied.

The following sections of the Oregon Revised Statutes are applicable to this request:

Oregon Revised Statutes 197.195
LIMITED LAND USE DECISION

[…]
(3) A limited land use decision is subject to the requirements of paragraphs (a) to (c) of this subsection.

[…]

(b) For limited land use decisions, the local government shall provide written notice to owners of property within 100 feet of the entire contiguous site for which the application is made. The list shall be compiled from the most recent property tax assessment roll. For purposes of review, this requirement shall be deemed met when the local government can provide an affidavit or other certification that such notice was given. Notice shall also be provided to any neighborhood or community organization recognized by the governing body and whose boundaries include the site.

Finding: Using the most recent property tax assessment roll, notice of this application was mailed to every property owner within 100 feet of the entire subject site on January 8, 2026. Section 17.164.130(A) indicates that property owners within 200 feet of the site shall be noticed; however, State statute preempts local ordinances where the two conflict and so property owners within 100 feet will be noticed. As of the date of this report, there have been no comments made by the public. ORS 197.195(3)(b) is satisfied.

RECOMMENDATION
Based on the Findings of Fact and the materials submitted by the applicant, staff recommends that the Planning Commission **approve** SB 1-25, subject to the following conditions:

PRIOR TO CONSTRUCTION

1. The applicant shall submit construction plans in accordance with these conditions of approval for streets, utilities, and other public infrastructure that have been prepared by a registered professional engineer, licensed in the State of Oregon, and adhere to the applicable Scappoose Municipal Codes, utility Master Plans, and Public Works Design Standards. All applicable improvements shown in the construction documents shall be referenced vertically to the NAVD 88 datum and horizontally to the NAD 1983 HARN State Plane Oregon North FIPS 3601 (Intl Feet).

2. The applicant shall obtain a National Pollutant Discharge Elimination System (NPDES) 1200-C permit from the Oregon Department of Environmental Quality, a Right of Way Permit and grading permit from City of Scappoose, and attend a Pre-construction Meeting with the City, if applicable, prior to any work. A copy of the approved NPDES permit shall be submitted to the City Engineer prior to approval of the Right of Way and Grading Permits. Right of Way and Grading Permits are required prior to being issued a Notice to

Proceed for construction.

3. The applicant shall design a stormwater system that conveys, treats, and disposes of the proposed subdivision's stormwater and meets the requirements of the Public Works Design Standards. The system designs are subject to review and approval by the City Engineer. If the applicant proposes to route stormwater to the stormwater facility owned and maintained by Thompson Woods HOA, the applicant shall provide the following to the City: A) evidence of Thompson Woods HOA's acceptance of the increased amount of stormwater directed to its facility, B) a downstream analysis that fully complies with Public Works Design Standards Section 2.0027 and concludes that the facility has the capacity to accommodate the additional stormwater from applicant's proposed subdivision, and C) shared maintenance terms for the facility between the applicant and Thompson Woods HOA, if required by the Thompson Woods HOA. If any of these conditions cannot be satisfied and/or the applicant proposes to route stormwater elsewhere, the applicant shall submit an alternate stormwater management design in conformance with the Public Works Design Standards for review and approval by the City Engineer. The applicant's project engineer shall produce calculations demonstrating that the treatment and/or detention capacity of the proposed system is adequate and shall submit a hydraulic analysis and final stormwater report meeting the Public Works Design Standards to the City Engineer for review and approval.

4. The applicant shall submit a final geotechnical report in accordance with the Public Works Design Standards which outlines recommendations based on the proposed development.

5. The applicant shall have the geotechnical engineer of record review the final construction plans to verify conformance with the geotechnical report and its recommendations.

6. The applicant shall provide computations to the City Engineer, Fire Chief, and Building Official demonstrating adequate domestic and fire flow for the subdivision.

7. The applicant shall enter into a construction Improvement Agreement with the City of Scappoose for all public improvements and provide a performance bond for 110% of the Public Works Construction costs, prior to the City's issuance of the Notice to Proceed for commencement of work.

CONSTRUCTION REQUIREMENTS

8. The applicant shall install all public infrastructure in compliance with the Public Works Design Standards.

9. The applicant shall adhere to all applicable code requirements for the occupancy as designated per Oregon Fire Code and Oregon Structural Specialty Code or Oregon Residential Specialty Code.

10. The applicant shall plant street trees on their SE Maple Street and SE 6th Court frontages

in accordance with Section 13.28.010(C) and Chapter 17.104. The street trees shall be a species listed on the Approved Street Tree List on file with the Planning Department. The final construction plans shall provide a detail for root guard to protect sidewalks and other surroundings. At the time of planting, all street trees shall have a 2-inch minimum caliper, be no less than 10 feet if they are deciduous and 5 feet if they are evergreen, and be spaced as appropriate for the selected species, as specified in the Approved Street Tree List. All street trees shall be of good quality and conform to the American Standard for Nursery Stock (ANSI Z60.1). The Planner reserves the right to reject any plant material that does not meet this standard.

11. The applicant shall construct SE Maple Street to a full Neighborhood Route standard with the exception that 5-foot planter strips will be acceptable. The applicant shall construct SE 6th Court to a full Local Street standard with the exception that SE 6th Court may be built within a 45.69-foot right-of-way and omit street trees and sidewalk on the east side. The extension of both streets shall be a continuation of the existing streets' alignment. The streets shall be paved in two lifts per amendment to the Public Works Design Standards for street paving with the final lift of paving being installed upon completion of a majority of the townhomes.

12. The applicant shall install, upgrade, or remove any street signs within the development required by the Manual on Uniform Traffic Control Devices, Scappoose Municipal Code, or the City Engineer at the applicant's cost and labor.

13. The applicant shall install locking cluster mailboxes to serve the development, subject to the approval of the Scappoose Postmaster and City Engineer. The mailboxes shall comply with Section 17.154.030(P), Chapter 11 of the Oregon Structural Specialty Code, Americans with Disabilities Act, and U.S. Postal Service regulations.

14. The applicant shall install four streetlights throughout the subdivision, per the current Columbia River PUD standards, roughly spaced at 150-foot intervals.

15. The applicant shall provide stormwater conveyance, treatment, and disposal for the proposed stormwater facilities which meets the requirements of the Public Works Design Standards subject to approval of the City Engineer. Clean Water Services or City of Portland standards are acceptable treatment methods. The storm retention system shall be privately owned and maintained. The project engineer shall provide calculations demonstrating that the treatment and/or detention capacity of the proposed system is adequate.

16. The applicant shall install an end-of-road barricade at the eastern terminus of SE Maple Street.

17. The applicant shall provide erosion control measures meeting the requirements of the Public Works Design Standards, Section 2.0051. For Subdivision plats, temporary erosion

control measures shall also be utilized by subsequent builders during construction of dwellings and other lot improvements.

18. The applicant shall make any improvements to underground infrastructure prior to the completion of street improvements.

19. The applicant shall extend all underground utility mains to the eastern terminus of SE Maple Street.

20. The applicant shall have a geotechnical engineer registered to practice in the state of Oregon oversee all earthwork portions of the development.

PRIOR TO FINAL PLAT RECORDING

21. Approval of this preliminary Subdivision plat shall be effective for a period of one year following Planning Commission approval. Extension of approval may be granted by the Planner if the criteria provided by Section 17.150.040(B) are met.

22. The applicant shall prepare a final Subdivision plat that demonstrates compliance with the dimensional requirements in Section 17.50.050 of the Scappoose Development Code and Oregon Revised Statutes Chapter 92, Subdivisions and Partitions. The plat shall include a note that states "This plat is subject to the conditions of approval imposed by the City of Scappoose for local file # SB 1-25."

23. The applicant shall submit a draft of the Homeowners' Association Agreement and Codes, Covenants and Restrictions (CC&R's) for the subdivision for the review and approval of the City if a new Homeowners' Association is being established or an existing one is being amended to include the new lots.

24. The applicant shall confirm with the County Surveyor and Scappoose Rural Fire Protection District that the name for the Subdivision plat and all street names are acceptable.

25. The applicant shall have all utility installments and street improvements substantially complete to the satisfaction of the City.

26. The applicant's registered professional surveyor shall verify with the City that monuments are properly placed following the completion of street improvements and recording of the final plat.

27. The applicant shall submit any easements related to the provision, extension, or maintenance of utilities to the City Engineer for review and approval prior to filing the final plat. All utilities (public or franchise) that run across private property shall be within an exclusive public utility easement, as required by the Public Works Design Standards, and in all cases shall be wide enough to allow construction and maintenance work to proceed within the easement limits (8 feet). Any easements to allow access and

maintenance of private drainage lines or other common elements and their associated appurtenances shall meet the applicable requirements of the developer and the Oregon Structural Specialty Code and Oregon Plumbing Specialty Code, whichever is a higher standard.

28. The applicant shall submit an electronic copy of the draft final Subdivision plat to the City for review and approval prior to submitting the plat to Columbia County. After City approval of the final plat, the plat shall be recorded with Columbia County. An electronic copy of the recorded plat shall be provided to the City within 15 days of recording.

PRIOR TO PERFORMANCE BOND RELEASE

29. The applicant shall have their Engineer of Record submit a stamped Bond Release form for the City's signoff prior to release of the Performance Bond.

30. The applicant shall submit asbuilts of all public improvements to the City in PDF and AutoCAD format for review and approval.

31. The applicant shall submit all test data and final inspection reports, compaction reports from the Geotechnical Engineer and Engineer of Record.

32. The applicant shall mandrel test, camera inspect, and vacuum test (once paved) the sanitary sewer manholes and lines in accordance with the Public Works Design Standards. All test reports shall be submitted to the City.

33. The applicant shall mandrel test the stormwater system manholes and lines in accordance with the Public Works Design Standards. All test reports shall be submitted to the City.

34. The applicant shall pressure test the water system to 150% of the working pressure or 150 PSI, whichever is greater, and then chlorinated per the City's schedule. A test report shall be submitted to the City with an exhibit indicating the location of the chlorination tap and test locations.

Exhibit 1

Maple Street Subdivision Vicinity Map

12/30/2025, 4:12:27 PM

Taxlots with labels

Streets

City Limits Boundary

1:1,200

0 55 110 220 ft

0 15 30 60 m

GeoTerra, Frontier, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Scappoose Planning Department
33568 E. Columbia Ave. Scappoose, OR 97056
Phone: 503-543-7146 Fax: 503-543-7182
www.ci.scappoose.or.us

SUBDIVISION PRELIMINARY PLAT APPLICATION

NOTICE TO APPLICANT: On original application form, please print legibly using black/dark blue ink or type. Applicants are advised to review the list of submittal requirements and recommendations indicated on each land use application form and in the applicable code section prior to submitting an application. Applicants are required to schedule a pre-application meeting with staff prior to submitting final application. **INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED UNTIL THE PLANNING DEPARTMENT RECEIVES ALL REQUIRED SUBMITTAL MATERIALS. REFER TO SUBMITTAL CHECKLIST.**

TRACKING INFORMATION (For Office Use Only)

Application Submittal Includes:

☐ 2 Hard Copies Required (Initial Submittal) ☐ Electronic Submittal ☐ Fee

☐ 7 Hard Copies Required (Final Submittal, once deemed complete by City Planner)

Date Submitted with payment: _____ *Receipt #:* _____

File # _____ Hearing Date _____

SITE LOCATION & DESCRIPTION

Tax Map #(s) 3212-DA Tax Lot #(s) 4400

Frontage Street or Address SE Maple St.and SE 6th Ct.

Nearest Cross Street SE Cypress Ct.

Plan Designation Suburban Residential Zoning R-4 Site Size 1.59 ☑ acres ☐ sq. ft.

Dimensions 393.78' x 174.35'

SUMMARY OF REQUEST

Proposed Project Name Maple St. Subdivision

Project Type/Narrative Summary: (Provide a brief summary and specify project type: Single Family Residential (SFR), Multi-family Residential (MFR), Commercial (C), Industrial (I)) SFR (townhomes) - Proposed subdivision of 1.59 acre lot into 14 lots for single-family townhomes (configured as two quadplexes and two threeplexes).

NOTE: If a residential project is proposed, a Residential Density Calculation Worksheet (page attached) must be submitted.

Is a Variance Requested? ☐ Yes ◉ No

If Yes, identify type of request: ☐ Minor Variance ☐ Major Variance

NOTE: Procedures and Applicable Criteria for variances may be found in SDC Chapter 17.134

SUBDIVISION PRELIMINARY PLAT APPLICATION

(CONTINUED)

	SFR Detached	SFR Attached	Multi Family	Commercial/Industrial
No. of Lots:		14		
Max. Lot Size (sq. ft.):		4,116		
Min. Lot Size (sq. ft.):		2,931		
Avg. Lot Size:		3,487		
Total No. of Units:		14		

DETAILED SITE INFORMATION

Are any of the following present on the site? *If so, please specify number of acres and/or percentage of site affected.*

Floodplain No Wetlands No Significant Natural Resources No

Cultural Resources No Airport Noise Contours No Slopes greater than 20% No

Water Provider: ☑ City of Scappoose ☐ Well

Does the site have access to City street(s)? ◉ Yes ○ No (Please explain): Frontage on SE Maple St.and SE 6th Ct.

Does the site have access to County road(s)? ○ Yes ◉ No (Please explain):

Subject lot is adjacent to the County but does not abut any County roads

Are street/road improvements requested or required? ◉ Yes ○ No (Please explain):

Proposed extensions of SE Maple Street (60-foot ROW) and SE 6th Court. (46-foot ROW) to be dedicated

Are parking restrictions requested? ○ Yes ◉ No (Please explain which streets are affected):

Are there existing structures on the site? ○ Yes ◉ No (If Yes, briefly explain future status of structures.)

Are there existing wells or septic drain fields on the site? ○ Yes ◉ No (If Yes, briefly explain future status.)

OWNERSHIP AND APPLICANT INFORMATION

(Property owner signature must be a wet-ink signature. If the property is under-going a change of ownership, proof of purchase or purchase contract must be provided if property owner of record is not the signing party.)

Property Owner(s): Name(s) Joe Kessi

Business Name Ohm Equity Partners, LLC

Mailing Address City Scappoose State OR Zip 97056

Phone # Fax # Email Address

SUBDIVISION PRELIMINARY PLAT

(CONTINUED)

Does the owner of this site also own any adjacent property? ☐ Yes ☒ No (If Yes, please list tax map and tax lots)_____

_____

Property Owner(s) Signature(s) Joe Kessi Date: 05/22/2024

(If more than one property owner, please attach additional sheet with names and signatures.)

Applicant: Name Brad Hendrickson

Business Name_____

Mailing Address_____ City St. Helens State OR Zip 97051

Phone #_____ Fax #_____ Email Address_____

Applicant's Signature_____ Date: 5/27/24

Applicant's interest in property Development Partner

Additional Project Team Members

Applicant's Representative: Contact Name Chase Berg

Business Name Lower Columbia Engineering

Mailing Address_____ City St. Helens State OR Zip 97051

Phone #_____ Fax #_____ Email Address_____

Civil Engineer: Contact Name See above

Business Name_____

Mailing Address_____ City_____ State_____ Zip_____

Phone #_____ Fax #_____ Email Address_____

Architect: Contact Name_____

Business Name_____

Mailing Address_____ City_____ State_____ Zip_____

Phone #_____ Fax #_____ Email Address_____

Landscape Architect: Contact Name_____

Business Name_____

Mailing Address_____ City_____ State_____ Zip_____

Phone #_____ Fax #_____ Email Address_____

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RESIDENTIAL DENSITY CALCULATION WORKSHEET

To monitor compliance with State regulations, the City must track the net densities of new residential developments in the City. This worksheet must be completed by the applicant and submitted with the preliminary application for any residential or mixed-use subdivision, planned unit development, partition, or development review approval.

Project Name Maple St. Subdivision

Developer / Applicant Brad Hendrickson

Project Site Address SE Maple St.(east of SE Cypress Ct.)

Tax Map #(s) 3212-DA Tax Lot #(s) 4400

Plan Designation Suburban Residential Zoning R-4

Net residential density is calculated on net acreage, the area on a site which is eligible for development. Net acreage is calculated by subtracting undevelopable land from gross acreage.

Residential Density Calculations: *Fill in the blanks below to calculate the net residential density.*

Total Gross Area of Subject Site (1 acre = 43,560 sq. ft.): 69,260 square feet

Less "undevelopable land": (as applicable)

- Public street right-of-way dedication 20,604
- Public or private access easements _____
- Public or private access easements _____
- Private street tracts _____
- Required internal fire access drive areas _____
- Storm water treatment and detention areas _____
- Wetlands and required CWS vegetated corridors _____
- Areas with 20% or greater slopes _____
- Areas within the 100-year floodplain _____
- Land dedicated to the City for parks or greenways _____
- Maneuvering area for truck loading docks _____
- Electrical transformer platforms, industrial chemical and/or gas storage areas, or other hazardous area where occupancy is Not Permitted for safety reasons _____

Total Net Area (total gross area minus undevelopable land):	48,656 square feet
Net Acreage of Subject Site (total net area divided by 43,560):	1.12 acres
Total Number of Residential Units Proposed:	14 units
Net Residential Density (proposed units divided by net acreage):	12.5 units per net acre

OHM Equity Partners LLC

SE Maple Street Subdivision

Land Use Narrative

Prepared by Lower Columbia Engineering
Submitted to City of Scappoose
Planning Department
November 2025 (2nd submittal)

Table of Contents

List of Drawings

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C-1 Existing Conditions Plan

C-2 Preliminary Site Plan

C-3 Preliminary Grading and ESC Plan

C-4 Street Profile and Cross Sections

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C-9 Future Access and Circulation Plan

List of Exhibits

Exhibit A: Trip Generation Analysis

Exhibit B: Stormwater Report

Exhibit C: Geotechnical Report

Project Summary

Internal File No:	3671
Pre-Application Date:	3/13/25
Applicant:	Ohm Equity Partners 33470 Chinook Plz 213 Scappoose, OR 97056
Applicant Representative:	Chase Berg Lower Columbia Engineering 58640 McNulty Way St. Helens, OR 97051 503-366-0399 chase@lowercolumbiaengr.com
Property Owner:	Ohm Equity Partners
Request:	Land Division – Subdivision
Location:	SE Maple Street (east of SE Cypress Court) Scappoose, OR, 90756
Tax Lot ID:	3212-DA-04400
Tax Account:	5709
Zoning Designation:	Moderate Density Residential (R-4)

Project Overview

Ohm Equity Partners is seeking approval to subdivide a 1.59-acre property into 14 lots for the purposes of development with townhomes.

Vicinity Map

Subject Site

- The subject property consists of one parcel with an area of 1.59 acres. The parcel is located at the eastern terminus of SE Maple Street, east of SE 4th Street, and is identified as Columbia County Assessor Tax Lot 3212-DA-04400.
- The site is designated Suburban Residential (SR) on the Scappoose Comprehensive Plan Map and is zoned Moderate Density Residential (R-4). Adjacent zoning is R-10 (Columbia County) to the north and east, R-4 (City of Scappoose) to the south, and R-1 (City of Scappoose) to the west. All adjacent parcels have residential uses.
- According to flood insurance rate map (FIRM) 41009C0463D, dated 11/26/10, the property is located outside the special flood hazard area. The southeastern corner of the property (totaling approximately 25 square feet) is located in the Scappoose Drainage District and is protected from the one percent annual chance (100-year) flood by a dike. The Scappoose local wetlands inventory map does not depict wetlands within or near the property.
- The site is currently vacant and is vegetated with grasses plus trees along the southern and eastern boundaries. The site slopes gently downward from west to east, with an overall grade difference of only four to five feet.

Background Information

- In 2020 the subject property was approved for annexation, zone change, and subdivision for a proposed 12-lot cottage housing development. While the annexation and zone change (to the site's current R-4 zoning) were completed, the subdivision was never carried out.
- This new proposal differs from the 2020 proposal in that it is for attached townhomes (two triplexes and two quadplexes) rather than detached cottage housing. Each unit will be on its own lot and have public right-of-way frontage with its own attached single-car garage. Also, because SE 6th Street (aka SE 6th Court) has now been extended to the south of the subject, it will also be extended through the subject site to connect with SE Maple Street.
- In 2023 (approximately), the 1.76-acre Thompson Woods subdivision was developed directly south of the subject property with nine new detached single-family homes. The development included the extension of SE 6th Street from the north side of SE Elm Street up to the development's northern lot line (which abuts the subject property's southern lot line). The extension is named SE 6th Court, and is aligned slightly west of the SE 6th Street alignment to the south.

Proposed Subdivision, Street System, and Right-of-Way Dedication

- The applicant requests approval of an application to subdivide 1.59 acres into 14 residential lots for townhomes. The lots range in size from 2,931 to 4,116 square feet.
- The proposed single-family townhome lots front the north side of the proposed SE Maple Street extension, and the west side of the proposed SE 6th Court extension.

Trip Generation Analysis and Street Improvements

- The applicant proposes interior street right-of-way widths of 60 feet for SE Maple Street and 46 feet for SE 6th Court.
- The proposed extension of SE Maple Street conforms to the public works design standards for its Neighborhood Route designation in the City's Transportation System Plan (TSP).
- The proposed SE 6th Court extension differs slightly from the standards for its Local Street designation in the TSP, with a reduced right-of-way width of 46 feet (as opposed to 54 feet). This is due to the need to align the new

street centerline with the existing centerline of SE 6th Court immediately to the south (running through the Thompson Woods Subdivision), and the fact that developing the entire 54-foot right-of-way off of that centerline would require dedication of eight feet of right-of-way from the adjacent property to the east, which is privately owned and outside City limits. A reduced 46-foot right-of-way (as discussed with City Staff at the pre-app meeting) still allows for the right-of-way cross section to meet Public Works Design Standards up to the outside of the curb on the east side of SE 6th Court. If the property to the east were ever to be developed, the additional eight feet of right-of-way would be dedicated at that time to complete the standard cross section.

- It is not anticipated that the proposed development would generate more than ten peak hour trips or 100 daily trips (see **Exhibit A – Trip Generation Analysis**).
- City of Scappoose staff have expressed concern about limited sight distance at the intersection of SE 6th Court and SE Elm Street, due to cars being parked along the west side of SE 6th Court. A sight distance analysis and potential placement of no parking signs at the intersection (which is not adjacent to the subject property) may be warranted. However, due to this being an existing condition unrelated to proposed development, and the intersection's location outside the project area, the project team believes these actions do not fall within the purview of this approval criteria for this subdivision application.

Utilities

- Water: See **Sheet C-7 – Water Plan**. Water utilities for the site will extend from an existing 8" public water main in SE Maple Street and connect to the existing 8" public main in SE 6th Court. Further details for the proposed 8" public main extension will be shown with construction plans submitted at the time of development for approval by the Public Works Director.
- Sanitary sewer: See **Sheet C-6 – Sanitary Plan**. It is proposed that a new 8" public gravity sewer main will be installed in the new sections of SE Maple Street and SE 6th Court, with private laterals discharging to the new public line. The new main will connect to the existing public mains in SE Maple Street and SE 6th Court.
- Stormwater: See **Sheet C-5 – Stormwater Plan** and **Exhibit B – Stormwater Report**. A combination of backyard infiltration trenches and a flow control system (trap and sump) will restrict downstream flows to predevelopment levels through a 100-year storm event, despite an increase in impervious surfaces.

  It is proposed that a new 12" HDPE public storm main be installed in the full length of the SE 6th Court extension, and a shorter section be installed in the SE Maple Street extension. The new main will flow south and connect to the existing public main in the Thompson Woods subdivision.

  On each lot, a 4" lateral will direct roof and foundation drains to a 24" backyard infiltration trench. This trench will connect across adjacent lots and outlet into a 6" PVC lateral that will flow toward the right -of-way and connect to the public main. The private storm infrastructure will be covered by utility easements recorded against each property's deed. Runoff from the right-of-way will flow into catch basins connected to the main.

Street Trees and Landscaping

- The applicant proposes adding fifteen new street trees within a five-foot-wide planter strip between the curb and sidewalk in the public right-of-way (nine along the SE Maple Street extension and six along the SE 6th Court extension). The planter strips will also be vegetated with groundcover.

Compliance with Scappoose Municipal and Development Codes

This section of the narrative demonstrates the project's compliance with all applicable provisions of Chapter 17 of the Scappoose Development Code. All text in *italics* are direct quotes from the code, which are followed by applicant responses in blue.

Chapter 17.50 – R-4 Moderate Density Residential

17.50.030 Permitted and Conditional Uses

Use	
[…]	
Townhouse, limited to a maximum of four attached townhomes	*Permitted outright*[1]
[…]	

1 These uses and their accessory uses are permitted in the R-4 zone outright outside of the Scappoose Creek Flood Plain. In the R-4 zone within the Scappoose Creek Flood Plain only uses listed in Section 17.84.040 shall be permitted.

Response: The proposed use of the site for townhomes (maximum of four attached) is allowed outright in the R-4 zone. According to FIRM panel 41009C0463D (effective 11/26/2010), the site is not within the floodplain. This criterion is met.

17.50.050 Dimensional Requirements

Dimensional Requirements	Requirement[1]
Minimum lot area:	
Outside of the Scappoose Creek Flood Plain	
Response: The subject site is located outside of the floodplain (FIRM Panel 41009C0463D, effective 11/26/10)	
[…]	
Townhouse	*Seven thousand square feet for the first two attached units and two thousand square feet for each additional unit*
Response: Please see **Sheet C-2 – Preliminary Site Plan**. According to the formula above, the minimum total lot areas for three attached townhomes = 7,000 + 2,000 = 9,000 square feet, and for four attached townhomes = 7,000 + (2,000 x 2) = 11,000 square feet. The two blocks of three townhomes have total lot areas of 10,222 square feet and 10,219 square feet (more than the 9,000-square foot minimum). The two blocks of four townhomes have total lot areas of 14,248 square feet and 14,122 square feet (more than the 11,000-square foot minimum). This criterion is met (see table on next page).	

The proposed lot sizes, grouped by attached units, are shown in the following table:

Configuration	Lot #	Lot area (square feet)
Three attached	1	3,949
	2	2,931
	3	3,342
	TOTAL	**10,222**

Configuration	Lot #	Lot area
Three attached	4	3,946
	5	2,931
	6	3,342
	TOTAL	**10,219**

Configuration	Lot #	Lot area
Four attached	7	4,085
	8	3,217
	9	3,216
	10	3,730
	TOTAL	**14,248**

Configuration	Lot #	Lot area
Four attached	11	4,116
	12	3,216
	13	3,215
	14	3,575
	TOTAL	**14,122**

[…]	
Minimum lot width	
[…]	
Townhouse	*Twenty-five feet per unit*
Response: Please see **Sheet C-2 – Preliminary Site Plan**. The widths of the proposed lots range from 25.00 to 33.68 feet. There are no lots less than 25 feet wide. This criterion is met.	
[…]	
Minimum setback	
Front Yard	*Fifteen feet*
Response: Please see **Sheet C-2 – Preliminary Site Plan**. It is proposed that all lots have a front yard setback of 15 feet. This criterion is met.	

Front of garages or carports	*Twenty feet from the property line where access occurs*
Response: Please see **Sheet C-2 – Preliminary Site Plan**. It is proposed that all lots have a front of garage setback of 20 feet. This criterion is met.	
Side yard	*Total a minimum of fifteen feet with one setback not less than ten feet, which shall be on the street side for corner lots*
Response: Please see **Sheet C-2 – Preliminary Site Plan**. Lot 7 is the only corner lot and is proposed to have side yard setback of ten feet fronting SE Maple Street. Lots 10 and 11, which are adjacent to each other (but not attached), will have side setbacks of five feet and ten feet, respectively, so the distance between the two structures will be at least 15 feet. Lots 3 and 4 are also adjacent to each other (not attached), and will have side setbacks of five feet and ten feet, respectively, so the distance between the two structures will be at least 15 feet. There will be zero lot line setback between the attached townhouse units (along the side property lines for lots 2, 5, 8, 9, 12 and 13), in accordance with the definition of townhouse in code section 17.26.030(2)(d) "…Townhouse dwellings will have a zero lot line at the common wall." This criterion is met.	
Rear yard	*Twenty feet*
Response: Please see **Sheet C-2 – Preliminary Site Plan**. It is proposed that all lots have a rear yard setback of at least 20 feet. This criterion is met.	
[…]	
Maximum height	*Thirty-five feet*
Response: The proposed townhomes will be two stories and approximately 25 feet tall. They will not exceed 35 feet. This criterion is met.	
[…]	
Principal building per lot	*One*
Response: It is proposed that all lots have only one principal building per lot. This criterion is met.	
Maximum building coverage	*Forty percent*
Response: As floorplans have not yet been designed for the project, the actual building coverage for each lot will be calculated at the time of application for a development permit to ensure compliance with this criterion.	

1 Additional requirements shall include and applicable section of this title

Chapter 17.104 – Street Trees

17.104.040 – Standards for street trees.

A. Street trees shall be selected from the approved street tree list on file with the Planning Department.

B. At the time of planting, street trees shall not be less than ten feet high for deciduous trees and five feet high for evergreen trees.

C. Spacing and minimum planting areas for street trees shall be as follows:

1. Street trees under twenty-five feet tall and less than sixteen feet wide at maturity shall be spaced no further than fifteen feet apart in planting areas containing no less than sixteen square feet of porous surface and not less than four feet wide;

2. Street trees under twenty-five feet tall and greater than sixteen feet wide at maturity shall be spaced no further than twenty feet apart in planting areas containing no less than sixteen square feet of porous surface and not less than four feet wide;

3. Street trees between twenty-five feet to forty feet tall and less than twenty-five feet wide at maturity shall be spaced no greater than twenty-five feet apart in planting areas containing no less than twenty-four square feet of porous surface and not less than six feet wide;

4. Street trees between twenty-five feet to forty feet tall and greater than twenty-five feet wide at maturity shall be spaced no greater than thirty feet apart in planting areas containing no less than twenty-four square feet of porous surface and not less than six feet wide;

5. Street trees greater than forty feet tall at maturity shall be spaced no greater than forty feet apart in planting areas containing not less than thirty-six square feet of porous surface and not less than eight feet wide.

Response: Please see **Sheet C-8 – Landscape Plan**. There will be fifteen new 'Autumn Brilliance' Serviceberry street trees planted within the proposed five-foot-wide landscape strips. This includes three trees on the south side of the SE Maple Street extension and six on the north side. There will be six trees on the west side of the SE 6th Court extension. The 'Autumn Brilliance' Serviceberry grows to 25 feet tall and 20 feet wide (according to the City of Scappoose approved street tree list) and is thus appropriate for five-foot-wide planting strips. The trees will be no less than ten feet tall upon planting. The applicant's contractor may need to choose a different species based on availability but will only do so with prior approval from the City of Scappoose. Rootguard will be installed as required.

D. Street trees located under or within ten feet of overhead utility lines shall be less than twenty-five feet tall at maturity.

Response: There are no existing or proposed overhead utility lines on site. This criterion is not applicable.

E. Street trees shall be planted in accordance with the requirements of Scappoose Municipal Code Section 13.28.020(C). (Ord. 875, 2018; Ord. 659 § 3, 1997)

Response: Street trees will be planted in accordance with Scappoose Municipal Code Section 13.28.020(C).

17.104.060 – Maintenance of street trees.

A. The adjacent owner, tenant, and their agent, if any, shall be jointly and severally responsible for the maintenance of all street trees which shall be maintained in good condition so as to present a healthy, neat and orderly appearance and tree wells shall be kept free from refuse and debris.

Response: The applicant understands that the adjacent owner shall be responsible for maintenance of all street trees in good condition.

B. All street trees shall be controlled by pruning to National Arborist Association Pruning Standards for Shade Trees included as Appendix B of the Scappoose Comprehensive Urban Forestry Plan.

Response: The applicant will control street trees through pruning to meet the National Arborist Association standards.

C. Every owner of any tree overhanging any street or right-of-way within the city shall prune the branches so that such branches shall not severely obstruct the light from any street lamp or obstruct the view of any street intersection and so

that there shall be a clear space of thirteen feet above street surface or eight feet above the sidewalk surface. Such owners shall remove all dead, diseased or dangerous trees, or broken or decayed limbs which constitute a menace to the safety of the public. The city shall have the right to prune any tree or shrub on private property when it interferes with the proper spread of light along the street from a street light, or interferes with visibility of any traffic-control device or sign or sight triangle at intersections as defined in Scappoose Municipal Code 12.10, Visual Clearance Areas. Tree limbs that grow near high voltage electrical conductors shall be maintained clear of such conductors by the electric utility company in compliance with any applicable franchise agreements.

Response: The applicant will prune street trees such that the branches shall not severely obstruct the light from any street lamp or obstruct the view of any street intersection, leaving a clear space of 13 feet above the street surface or 8 feet above the sidewalk surface. They will remove any dead or damaged trees or limbs that constitute a menace to the safety of the public. There are no high voltage electrical conductors overhead in the vicinity.

D. The city shall have the right to plant, prune, and otherwise maintain trees, plants and shrubs within the lines of all streets, alleys, avenues, lanes, as may be necessary to insure public safety or to preserve or enhance the symmetry and beauty of such public grounds.

Response: The applicant understands the city has the right to maintain trees, plants and shrubs within streets, alleys, avenues and lanes to ensure public safety and preserve or enhance the symmetry and beauty of such public grounds.

E. It is unlawful as a normal practice for any person, firm or city department to top any street tree. Topping is defined as the severe cutting back of limbs within the tree's crown to such a degree so as to remove the normal canopy and disfigure the tree. Trees severely damaged by storms or other causes, or certain trees under utility wires or other obstructions where other pruning practices are impractical may be exempted from this chapter at the determination of the city manager after consultation with a registered arborist or certified forester. (Ord. 820 § 7, 2012; Ord. 659 § 3, 1997)

Response: The applicant understands that topping of street trees is not allowed unless through determination of the City Manager.

Chapter 17.150 – Land Division – Subdivision

17.150.020 – General Provisions

[…]

C. When subdividing tracts into large lots, the planning commission shall require that the lots be of such size and shape as to facilitate future re-division in accordance with the requirements of the zoning district and this title.

Response: The applicant is not proposing subdivision into large lots, and the proposed lot sizes would not allow future re-division under current zoning. This criterion is not applicable.

D. Where landfill and/or development is allowed within and adjacent to the one hundred-year floodplain, the city may require the dedication of sufficient open land area for a greenway adjoining and within the floodplain. This area shall include portions at a suitable elevation for the construction of a pedestrian/bicycle pathway within the floodplain.

Response: The subject site is not within or adjacent to the one-hundred-year floodplain. This criterion is not applicable.

E. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located to minimize flood damage and constructed according to public works design standards and specifications.

Response: The subject site is not within or adjacent to the one-hundred-year floodplain. This criterion is not applicable.

F. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.

Response: See **Exhibit B – Stormwater Report** and **Sheet C-5 – Stormwater Plan**. A combination of backyard infiltration trenches and a flow control system will restrict downstream flows to predevelopment levels through the 100-year storm event. It is proposed that a new public storm main consisting of a 48" corrugated metal pipe be installed in the full length of the SE 6th Court extension. A shorter section of public storm main consisting of a 12" HDPE pipe will be installed in the SE Maple Street extension. The new main will flow south and connect to the existing public main in the Thompson Woods subdivision.

On each lot a 4" lateral will direct roof and foundation drains to a 24" backyard infiltration trench. This infiltration trench will have an overflow pipe that is routed along the north side of lot 7 and will connect into the new public storm main. The private storm infrastructure will be covered by utility easements recorded against each property's deed. Runoff from the right-of-way will flow into catch basins connected to the main.

A geotechnical report (see **Exhibit C**) has also been submitted with this application, which shows that the proposed construction is geotechnically feasible and includes recommendations for on-site preparations. This criterion is met.

G. Where base flood elevation has not been provided or is not available from another authoritative source, it shall be generated by the developer.

Response: The subject site is not within or adjacent to the 100-year floodplain. This criterion is not applicable.

H. All subdivision proposals shall include neighborhood circulation plans that conceptualize future street plans and lot patterns to parcels within five hundred feet of the subject site. Circulation plans address future vehicular/bicycle/pedestrian transportation systems including bike lanes, sidewalks, bicycle/pedestrian paths, and destination points and must meet the criteria in 17.120(Q). A circulation plan is conceptual in that its adoption does not establish a precise alignment. (Ord. 857, 2016; Ord. 828, 2013; Ord. 711 § 1 Exh. A, 2001; Ord. 634 § 1 Exh. A, 1995)

Response: See **Sheet C-9 – Future Access and Circulation Plan**. This criterion is met.

17.150.060 – Approval standards – Tentative plan.

A. The planning commission may approve, approve with conditions or deny a tentative plan based on the following approval criteria:

1. The proposed tentative plan shall comply with the city's comprehensive plan, the applicable chapters of this title, the public works design standards, and other applicable ordinances and regulations;

Response: See **Sheet C-2 – Preliminary Site Plan**. The proposed preliminary plan complies with the City's Comprehensive Plan through its conformance with the applicable standards of the Development Code as detailed in this narrative. Review by the City Engineer and all other referral agencies will ensure compliance with the City's Public Works Design Standards and Specifications and all other applicable regulations regarding street, sewer, water and all other public improvement configurations and construction materials, as well as private utilities. This criterion is met.

2. The proposed plat name is not duplicative and otherwise satisfies the provisions of ORS Chapter 92.090(1);

Response: The proposed plat name (still to be determined) will be submitted for approval by the Columbia County Surveyor to confirm it is acceptable and not duplicative.

3. The streets and roads are laid out so as to conform to the plats of subdivisions and maps of major partitions already approved for adjoining property as to width, general direction and in all other respects, including conformance with neighborhood circulation plans, unless the city determines it is in the public interest to modify the street or road pattern; and

Response: See **Sheet C-9 – Future Access and Circulation Plan**. The proposed extensions of SE Maple Street and SE 6th Court are laid out to accommodate existing property lines and potential future subdivision of nearby properties. Currently there are no approved subdivisions or partitions for adjoining properties. This criterion is met.

4. An explanation has been provided for all public improvements.

Response: Proposed public improvements are detailed on **Sheet C-4 – Street Profile and Cross Sections**, **Sheet C-5 – Stormwater Plan**, **Sheet C-6 – Sanitary Plan**, **Sheet C-7 – Water Plan**, and **Sheet C-8 – Landscape Plan**. This criterion is met.

B. The planning commission may attach such conditions as are necessary to carry out the comprehensive plan and other applicable ordinances and regulations and may require reserve strips be granted to the city for the purpose of controlling access to adjoining undeveloped properties. (Ord. 727 § 1, 2002; Ord. 711 § 1 Exh. A, 2001; Ord. 634 § 1 Exh. A, 1995)

Chapter 17.154 – Street and Utility Improvement Standards

17.154.030 – Streets.

A. No development shall occur unless the development has frontage or approved access to a public street:

1. Streets within a development and streets adjacent to a development shall be improved in accordance with this title and the public works design standards and specifications.

2. Any new street or additional street width planned as a portion of an approved street plan shall be dedicated and improved in accordance with this title and the public works design standards and specifications.

Response: See **Sheet C-4 – Street Profile and Cross Sections**. The subject property has existing frontage on SE Maple Street and SE 6th Court. The proposed extension of SE Maple Street with a 60-foot right-of-way conforms to the Public Works Design Standards for its Neighborhood Route designation in the City's Transportation System Plan (TSP).

The proposed extension of SE 6th Court differs slightly from the standards for its Local Street designation in the TSP, with a reduced right-of-way width of 46 feet (as opposed to 54 feet). This is due to the need to align the new street centerline with the existing centerline of SE 6th Court immediately to the south (running through the Thompson Woods Subdivision), and the fact that developing the entire 54-foot right-of-way off of that centerline would require dedication of eight feet of right-of-way from the adjacent property to the east, which is privately owned and outside City limits.

A reduced 46-foot right-of-way (as discussed at the pre-application meeting) still allows for the right-of-way cross section to meet Public Works Design Standards up to the outer curb edge on the east side of SE 6th Court. If the property to the east were ever to be developed, the additional eight feet of right-of-way would be dedicated at that time to complete the standard cross section.

3. Subject to approval of the city engineer and the planner, the planner may accept and record a non-remonstrance agreement in lieu of street improvements if two or more of the following conditions exist:

[…]

Response: The applicant is not proposing any non-remonstrance agreement in lieu of street improvements. These criteria are not applicable.

B. Rights-of-way shall be created through the approval of a final subdivision plat or major partition; however, the council may approve the creation of a street by acceptance of a deed, provided that such street is deemed essential by the council for the purpose of general traffic circulation:

[…]

Response: The applicant will rely on the approval of a final subdivision plat for the creation of right-of-way, rather than through acceptance of a deed. This criterion is met.

D. The location, width and grade of all streets shall conform to an approved street plan and shall be considered in their relation to existing and planned streets, to topographic conditions, to public convenience and safety, and in their appropriate relation to the proposed use of the land to be served by such streets:

1. Street grades shall be approved by the public works director in accordance with the city's public works design standards; and

Response: See **Sheet C-4 – Street Profile and Cross Sections**. Proposed street grades comply with Public Works Design Standards. This criterion is met.

2. Where the location of a street is not shown in an approved street plan, the arrangement of streets in a development shall either:

a. Provide for the continuation or appropriate projection of existing streets in the surrounding areas, or

b. Conform to a plan adopted by the council, if it is impractical to conform to existing street patterns because of particular topographical or other existing conditions of the land. Such a plan shall be based on the type of land use to be served, the volume of traffic, the capacity of adjoining streets and the need for public convenience and safety.

Response: See **Sheet C-9 – Future Access and Circulation Plan.** The proposed extensions of SE Maple Street and SE 6th Court conform to the City's Transportation System Plan (TSP). The circulation plan allows for future subdivision of nearby residential property with adequate access and connectivity. This criterion is met.

3. New streets shall be laid out to provide reasonably direct and convenient routes for walking and cycling within neighborhoods and accessing adjacent development.

Response: **See Sheet C-9 – Future Access and Circulation Plan**. The proposed street layout shows right-of-way widths sufficient to accommodate sidewalks, and are based on block sizes and connectivity levels conducive to convenient navigation of the neighborhood by pedestrians and cyclists. This criterion is met.

E. The street right-of-way and roadway widths shall not be less than the minimum widths described in the city's public works design standards.

Response: See **Sheet C-4 – Street Profile and Cross Sections.** The proposed extension of SE Maple Street conforms to its Neighborhood Route designation in the City's Transportation System Plan (TSP). This includes a 60-foot right-of-way with 36 feet of paved roadway.

The proposed extension of SE 6th Court differs slightly from the standards for its Local Street designation in the TSP, with a reduced right-of-way width of 46 feet (as opposed to 54 feet). This is due to the need to align the new street centerline with the existing centerline of SE 6th Court immediately to the south (running through the Thompson Woods

Subdivision), and the fact that developing the entire 54-foot right-of-way off of that centerline would require dedication of eight feet of right-of-way from the adjacent property to the east, which is privately owned and outside of the City limits.

A reduced 46-foot right-of-way (as discussed with City Staff at the pre-application meeting) still allows for the right-of-way cross section to meet Public Works Design Standards up to the outside of the curb on the east side of SE 6th Court. If the property to the east were ever to be developed, the additional eight feet of right-of-way would be dedicated at that time to complete the standard cross section. This criterion is met.

F. Where necessary to give access or permit a satisfactory future division of adjoining land, streets shall be extended to the boundary lines of the tract to be developed. A reserve strip across the end of a dedicated street shall be deeded to the city; and a barricade shall be constructed at the end of the street by the property owners which shall not be removed until authorized by the public works director, the cost of which shall be included in the street construction cost.

Response: See **Sheet C-4 – Street Profile and Cross Sections.** It is proposed that both SE Maple Street and SE 6th Court be extended to the boundary lines of the subject property. At the southern end of the property the new portion of SE 6th Court will connect to the existing section running through the Thompson Woods Subdivision. At the eastern terminus of SE Maple Street, a reserve strip will be deeded to the City with a barricade constructed across it. Due to an anticipated downward grade change of approximately two feet between this end of Maple Street and the adjacent property, it is proposed that a low ultrablock wall be constructed across the roadway width with the barricades placed on top. This criterion is met.

G. No street name shall be used which will duplicate or be confused with the names of existing streets within the city's urban growth boundary, except for extensions of existing streets. Street names and numbers are subject to review and approval the Scappoose rural fire district.

Response: As all new street sections will be extensions of existing streets (SE Maple Street and SE 6th Court), the names of those existing streets will be utilized. This criterion is met.

H. Concrete vertical curbs, curb cuts, wheelchair, bicycle ramps and driveway approaches shall be constructed in accordance with standards specified in this chapter and the city's public works design standards. Concrete curbs and driveway approaches are required and shall be built to the city's configuration standards.

Response: See **Sheet C-4 – Street Profile and Cross Sections.** The proposed curb cuts, driveway approaches and accessible corner ramps are designed to meet the city's Public Works Design Standards. This criterion is met.

I. Wherever the proposed development contains or is adjacent to a railroad right-of-way, provision shall be made for a street approximately parallel to and on each side of such right-of-way at a distance suitable for the appropriate use of the land, and the distance shall be determined with due consideration at cross streets or the minimum distance required for approach grades and to provide sufficient depth to allow screen planting along the railroad right-of-way in nonindustrial areas.

Response: The proposed development does not contain and is not adjacent to a railroad right-of-way. This criterion is not applicable.

J. Where a development abuts or is traversed by an existing or proposed arterial street, the development design shall provide adequate protection for residential properties and shall separate residential access and through traffic, or if separation is not feasible, the design shall minimize the traffic conflicts. The design requirements shall include any of the following:

[…]

Response: The proposed development does not abut nor is it traversed by an existing or proposed arterial street. These criteria are not applicable.

K. Upon completion of a street improvement and prior to acceptance by the city, it shall be the responsibility of the developer's registered professional land surveyor to provide certification to the city that all boundary and interior monuments shall be established or re-established, protected and recorded.

Response: The developer's surveyor will certify establishment or reestablishment of all boundary and interior monuments upon completion of street improvements. This criterion is met.

L. Private streets are permitted within manufactured home parks, and the city shall require legal assurances for the continued maintenance of private streets, such as:

[…]

Response: There are no private streets proposed. These criteria are not applicable.

M. Where an adjacent development results in a need to install or improve a railroad crossing, the cost for such improvements may be a condition of development approval, or another equitable means of cost distribution shall be determined by the public works director and approved by the commission.

Response: There is no need for a railroad crossing. This criterion is not applicable.

O. The developer shall install all street signs, relative to traffic control and street names, as specified by the public works director for any development. The cost of signs shall be the responsibility of the developer.

Response: The developer will install and pay for any street signs as required by Public Works.

P. Joint mailbox facilities shall be provided in all residential developments, with each joint mailbox serving at least two dwelling units.

1. Joint mailbox structures shall be placed adjacent to roadway curbs and shall comply with provisions of the Americans with Disabilities Act and implementing federal and state regulations;

2. Proposed locations of joint mailboxes shall be designated on a copy of the tentative plan, and shall be approved by the U.S. Post Office prior to plan approval; and

3. Plans for the joint mailbox structures to be used shall be submitted for approval by the planner prior to final approval.

Response: See **Sheet C-2 – Preliminary Site Plan**. It is proposed that a mailbox bank for all 14 subdivision addresses be located adjacent to lot 7, in the landscape strip on the south side of SE Maple Street. It will be placed on top of a concrete pad level with the sidewalk to ensure accessibility. A plan for the proposed mailbox structure will be submitted to the Planning Department for approval before installation. This criterion is met.

[…]

R. Street lights shall be installed in accordance with the city's public works design standards.

Response: See **Sheet C-2 – Preliminary Site Plan.** Four new street lights will be added, spaced at approximately every 100 feet in accordance with Public Works Design Standards. The developer will coordinate with the PUD on installation.

S. A Transportation Impact Study (TIS) must be submitted with a land use application if the conditions in (1) or (2) apply in order to determine whether conditions are needed to protect and minimize impacts to transportation facilities, consistent with Section 660-012-0045(2)(b) and (e) of the State Transportation Planning Rule.

> *1. Applicability - TIS letter. A TIS letter shall be required to be submitted with a land use application to document the expected vehicle trip generation of the proposal. The expected number of trips shall be documented in both total peak hour trips and total daily trips. Trip generation shall be estimated for the proposed project using the latest edition of the Institute of Engineers Trip Generation Manual or, when verified with the City prior to use, trip generation surveys conducted at similar facilities.*

Response: See **Exhibit A – Trip Generation Analysis**. Based on a trip generation analysis it is not anticipated that the proposed development would generate more than ten peak hour trips or 100 daily trips. Using a single-family attached housing category to represent the proposed land use, it was estimated that the addition of 14 dwelling units would generate two A.M. peak hour trip and five P.M. peak hour trips (weekday). The total daily weekday trip generation was estimated at 57. Therefore, a TIS letter (or Transportation Analysis Letter) is sufficient to meet this criterion.

[…]

17.154.040 – Blocks.

A. The length width, and shape of blocks shall be designed with regard to providing adequate building sites for the use contemplated, consideration of needs for safe and convenient pedestrian and vehicular access and circulation and recognition of limitations and opportunities of topography

Response: Due to the existing development of adjacent properties, the proposed block shapes are the only feasible configuration allowing the extension and connection of SE Maple Street and SE 6th Court to align with existing centerlines. Such an alignment provides safe and convenient pedestrian and vehicular access and circulation, as well as an efficient use of land for residential development. This criterion is met.

B. Except for arterial streets, no block face shall be more than five hundred and thirty (530) feet in length between street corner lines and no block perimeter formed by the intersection of pedestrian access ways and local, collector and arterial streets shall be more than one thousand five hundred feet in length. If the maximum block size is exceeded, mid-block pedestrian and bicycle access ways should be provided at spacing no more than 330 feet, unless one or all of the conditions in Subsection C can be met. Minimum access spacing along an arterial street must meet the standards in the city's adopted Transportation System Plan. A block shall have sufficient width to provide for two tiers of building sites. Reverse frontage on arterial streets may be required by the planning commission.

Response: The block length of SE Maple Street, as proposed, will be 205 feet (as measured from the curb return at the southeast corner of the existing intersection of SE Cypress Court and SE Maple Street to the curb return at the southwest corner of the proposed intersection of SE Maple Street and SE 6th Court). The block length of SE 6th Court will be 526 feet (as measured from the curb return at the southwest corner of the proposed intersection of SE Maple Street and SE 6th Court to the curb return at the northwest corner of the existing intersection on SE 6th Court and SE Elm Street). Both of these block lengths are below the maximum of 530 feet. This criterion is met.

[…]

17.154.050 – Easements.

A. Easements for sewers, drainage, water mains, electric lines or other public utilities shall be either dedicated or provided for in the deed restrictions, and where a subdivision is traversed by a watercourse, drainageway, channel or

stream, there shall be provided a stormwater easement or drainage right-of-way conforming substantially with the lines of such watercourse and such further width as will be adequate for conveyance and maintenance.

Response: Public utilities will be located within the proposed dedicated public right-of-way. An eight-foot-wide public utility easement (shown on **Sheet C-2 – Preliminary Site Plan**) along the street-facing portion of each lot will provide room for installation of future public utilities if needed.

A ten-foot-wide stormwater easement will be recorded against each lot's deed, covering the area occupied by the proposed infiltration trench crossing the backyards (see **Sheet C-5 – Stormwater Plan**). Lots 7, 3 and 4 will have additional stormwater easements recorded for the lateral trenches outletting to the public right-of-way. The recorded easements will include restrictions against planting deep-rooted vegetation or undertaking other ground-disturbing activities in those areas. This criterion is met.

B. A property owner proposing a development shall make arrangements with the city, the applicable district and each utility franchise for the provision and dedication of utility easements necessary to provide full services to the development. (Ord. 634 § 1 Exh. A, 1995)

Response: See **Sheet C-2 – Preliminary Site Plan**. There will be eight-foot-wide public utility easement fronting the north and south sides of SE Maple Street and on the west side of SE 6th Court. The applicant has received "will serve" letters from the post master, Waste Management, and the Columbia River PUD, based on the preliminary site plan. Comcast has also indicated they are willing to extend service to the subdivision. This criterion is met.

17.154.070 – Sidewalks.

A. Sidewalks are required and shall be constructed, replaced or repaired in accordance with the city's public works design standards.

Response: See **Sheet C-2 – Preliminary Site Plan**. The proposed new sidewalks along with SE Maple Street and SE 6th Court extensions will be constructed to the city's Public Works Design Standards. Sidewalks along SE Maple Street will be six feet wide in accordance with its Neighborhood Route designation in the TSP. Along SE 6th Court there will be five-foot-wide sidewalks, in accordance with the Local Street designation in the TSP. This criterion is met.

B. Maintenance of sidewalks and curbs is the continuing obligation of the adjacent property owner.

Response: It is understood that sidewalk and curb maintenance is the responsibility of the adjacent property owner.

C. Subject to approval by the public works director and planner, planner may accept and record a nonremonstrance agreement for the required sidewalks from the applicant for a building permit for a single-family residence when the public works director determines the construction of the sidewalk is impractical for one or more of the following reasons:

[…]

Response: No nonremonstrance agreement for sidewalks is requested. These criteria are not applicable.

[…]

17.154.090 – Sanitary sewers.

A. Sanitary sewers shall be installed to serve each new development and to connect developments to existing mains in accordance with the provisions set forth by the city's public works design standards and the adopted policies of the comprehensive plan.

B. The public works director shall approve all sanitary sewer plans and proposed systems prior to issuance of development permits involving sewer service.

C. Proposed sewer systems shall include consideration of additional development within the area as projected by the comprehensive plan and the wastewater treatment facility plan and potential flow upstream in the sewer sub-basin.

D. Applications shall be denied by the approval authority where a deficiency exists in the existing sewer system or portion thereof which cannot be rectified within the development and which if not rectified will result in a threat to public health or safety, surcharging of existing mains, or violations of state or federal standards pertaining to operation of the sewage treatment system. (Ord. 634 § 1 Exh. A, 1995)

Response: See **Sheet C-6 – Sanitary Plan**. It is proposed that a new 8" public sewer main be installed in the extensions of SE Maple Street and SE 6th Court, with connections to the existing public sewer mains in the respective roads. Private laterals will serve each lot within the subdivision. This level of sanitary sewer infrastructure will be adequate to serve the 14 proposed dwellings. The proposed sanitary improvements have been designed to meet the city's Public Works Design Standards and Comprehensive Plan policies. These criteria are met.

17.154.100 – Storm drainage.

A. The planner and public works director shall issue permits only where adequate provisions for stormwater and floodwater runoff have been made, and:

1. The stormwater drainage system shall be separate and independent of any sanitary sewerage system.

2. Where possible, inlets shall be provided so surface water is not carried across any intersection or allowed to flood any street.

3. Surface water drainage patterns shall be shown on every development proposal plan.

4. All stormwater analysis and calculations shall be submitted with proposed plans for public works directors review and approval.

5. All stormwater construction materials shall be subject to approval of the public works director.

B. Where a subdivision is traversed by a watercourse, drainageway, channel or stream, there shall be provided a stormwater easement or drainage right-of-way conforming substantially with the lines of such watercourse and such further width as will be adequate for conveyance and maintenance.

Response: A ten-foot-wide stormwater easement will be recorded against each lot's deed, covering the area occupied by the proposed 24" infiltration trench crossing the backyards (see **Sheet C-5 – Stormwater Plan**). Lots 7, 3 and 4 will have additional stormwater easements recorded for the 6" PVC laterals connecting to the public main. The recorded easements will include restrictions against planting deep-rooted vegetation or causing any other ground disturbance in those areas. This criterion is met.

C. A culvert or other drainage facility shall, and in each case be, large enough to accommodate potential runoff from its entire upstream drainage area, whether inside or outside the development. The public works director shall determine the necessary size of the facility.

Response: See **Sheet C-5 – Stormwater Plan** and **Exhibit B – Stormwater Report**. The proposed stormwater system will not be connected to any upstream drainage area. The proposed public and private stormwater management components have been sized adequately to accommodate post-development runoff from the project site. This criterion is met.

D. Where it is anticipated by the public works director that the additional runoff resulting from the development will overload an existing drainage facility, the planner and engineer shall withhold approval of the development until provisions have been made for improvement of the potential condition or until provisions have been made for storage of additional runoff caused by the development. (Ord. 634 § 1 Exh. A, 1995)

Response: See **Sheet C-5 – Stormwater Plan** and **Exhibit B – Stormwater Report**. A combination of backyard infiltration trenches and a flow control system will restrict downstream flows to predevelopment levels through the 100-year storm event. It is proposed that a new public storm main consisting of a 48" corrugated metal pipe be installed in the full length of the SE 6th Court extension. A shorter section of public storm main consisting of a 12" HDPE pipe will be installed in the SE Maple Street extension. The new main will flow south and connect to the existing public main in the Thompson Woods subdivision.

On each lot a 4" lateral will direct roof and foundation drains to a 24" backyard infiltration trench. This infiltration trench will have an overflow pipe that is routed along the north side of lot 7 and will connect into the new public storm main. The private storm infrastructure will be covered by utility easements recorded against each property's deed. Runoff from the right-of-way will flow into catch basins connected to the main.

17.154.105 – Water system.

The planner and public works director shall issue permits only where provisions for municipal water system extensions have been made, and:

A. Any water system extension shall be designed in compliance with the comprehensive plan existing water system plans.

B. Extensions shall be made in such a manner as to provide for adequate flow and gridding of the system.

C. The public works director shall approve all water system construction materials. (Ord. 634 § 1 Exh. A, 1995)

Response: See **Sheet C-7 – Water Plan**. Water utilities for the site will extend from an existing 8" public water main in SE Maple St. and connect to the existing 8" main in SE 6th Court. Further details for the new 8" public main extension will be shown with construction plans submitted at the time of development for approval by the Public Works Director.

17.154.107 – Erosion controls.

A. Any time the natural soils are disturbed and the potential for erosion exists, measures shall be taken to prevent the movement of any soils off site. The public works director shall determine if the potential for erosion exists and appropriate control measures.

B. The city shall use the city's public works design standards as the guidelines for erosion control. (Ord. 634 § 1 Exh. A, 1995)

Response: See **Sheet C-3 – Preliminary Grading Plan**. A final grading and erosion control plan will be submitted for review through the development application process to ensure it conforms with the City's Public Works Design Standards.

17.154.120 – Utilities.

A. All utility lines including, but not limited to those required for electric, communication, lighting and cable television services and related facilities shall be placed underground, except for surface mounted transformers, surface mounted connection boxes and meter cabinets which may be placed above ground, temporary utility service facilities during construction, high capacity electric lines operating at fifty thousand volts or above, and:

1. The applicant shall make all necessary arrangements with the serving utility to provide the underground services;

2. The city reserves the right to approve location of all surface mounted facilities;

3. All underground utilities, including sanitary sewers, water lines, and storm drains installed in streets by the applicant, shall be constructed prior to the surfacing of the streets; and

4. Stubs for service connections shall be long enough to avoid disturbing the street improvements when service connections are made.

Response: All underground utilities will be constructed in a manner so as to minimize the street surface disturbance for future development. Due to the uncertainty of future development grading and utility layout, stubs for future connections have not been provided as part of this development. If future connections to the proposed utilities are needed, they can be extended as necessary.

B. The applicant for a subdivision shall show on the development plan or in the explanatory information, easements for all underground utility facilities, and:

1. Plans showing the location of all underground facilities as described herein shall be submitted to the public works director for review and approval; and

2. Above ground equipment shall not obstruct visual clearance areas for vehicular traffic. (Ord. 820 § 11, 2012; Ord. 634 § 1 Exh. A, 1995)

Response: See **Sheet C-5 – Stormwater Plan**, **Sheet C-6 – Sanitary Plan**, and **Sheet C-7 – Water Plan**. All public utilities are proposed to be located underground within the dedicated public rights-of-way created by extending SE Maple Street and SE 6th Court through the site. An eight-foot-wide public utility easement will extend along the street frontage within each new lot to provide space for installation of future underground public utilities, if needed.

Although exact driveway locations are yet to be determined, and thus visual clearance areas have not yet been established, future detailed plans will be developed to avoid placement of any above ground equipment within visual clearance areas.

17.154.130 – Cash or bond required.

A. All improvements installed by the applicant shall be guaranteed as to workmanship and material for a period of one year following acceptance by the city council.

Response: All improvements installed by the applicant will be guaranteed for one year for workmanship and materials.

B. Such guarantee shall be secured by cash deposit or bond for one hundred ten percent of the actual cost of the value of the improvements as set by the public works director.

Response: The applicant will provide a cash deposit or bond for 110% of the actual cost of the value of the improvements as set by the Public Works Director.

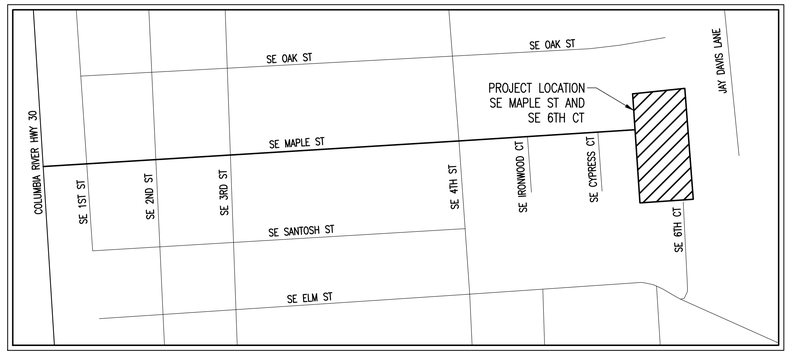
C. The cash or bond shall comply with the terms and conditions of Section 17.150.180. (Ord. 634 § 1 Exh. A, 1995)

Response: The applicant will ensure the cash or bond complies with the terms and conditions of Section 17.150.180.

MAPLE STREET SUBDIVISION

SCAPPOOSE, OR

BRAD HENDRICKSON

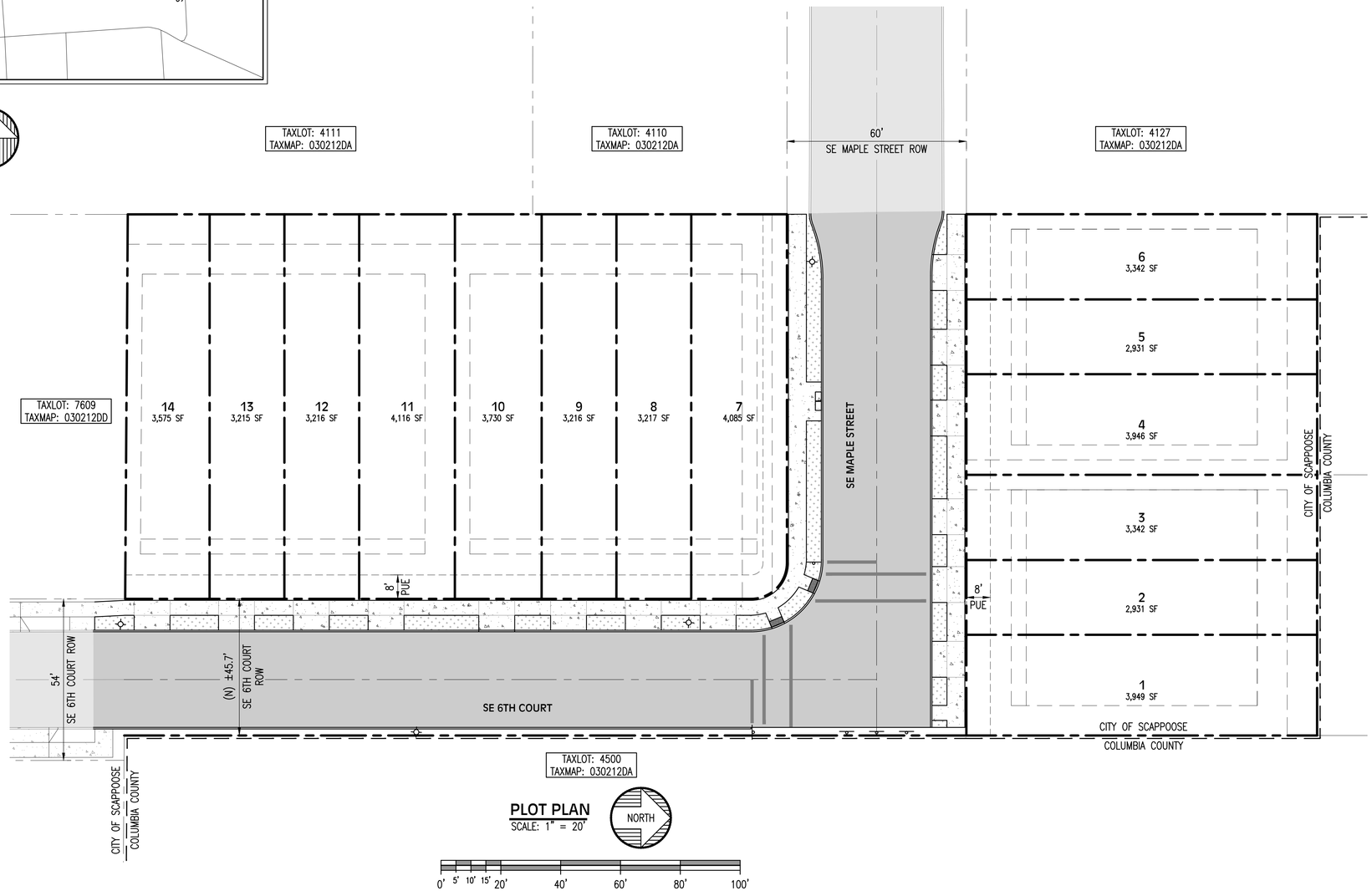


VICINITY MAP
SCALE: NTS

NORTH

MASTER LEGEND

(E)	EXISTING
(N)	NEW
	(E) ASPHALT
	(N) ASPHALT
	(E) SIDEWALK
	(N) SIDEWALK
	(N) LANDSCAPING
	(E) ROADWAY CENTERLINE
	(N) ROADWAY CENTERLINE
	PROPERTY LINE
	ADJACENT PROPERTY LINE
	(N) EASEMENT
	(N) BUILDING SETBACK
20'	(N) MAJOR CONTOUR
19'	(N) MINOR CONTOUR
20'	(E) MAJOR CONTOUR
19'	(E) MINOR CONTOUR
STM	(E) STORM LINE
H2O	(E) WATER LINE
SAN	(E) SANITARY LINE
STM	(N) STORM LINE
8IN W	(N) WATER MAIN
H2O	(N) WATER SERVICE
SAN	(N) SANITARY LINE
	(E) WATER VALVE
Ⓢ	(E) SANITARY MANHOLE
Ⓓ	(E) STORM MANHOLE
	(E) CATCH BASIN
Ⓢ	(N) SANITARY MANHOLE
Ⓓ	(N) STORM MANHOLE
Ⓒ	(N) CLEANOUT
	(N) WATER METER
	(N) STREET LIGHT



PLOT PLAN
SCALE: 1" = 20'

NORTH

0' 5' 10' 15' 20' 40' 60' 80' 100'

PROJECT TEAM

ENGINEER & DESIGNER

NAME:	LOWER COLUMBIA ENGINEERING
ADDRESS:	58640 McNULTY WAY ST. HELENS, OR 97051
PHONE:	(503) 366-0399
ENGINEER:	CHASE BERG
EMAIL:	chase@lowercolumbiaengr.com

OWNER

NAME:	OHM EQUITY PARTNERS LLC
ADDRESS:	33470 CHINOOK PLZ 213 SCAPPOOSE, OR 97056
PHONE:	(949) 693-0089
CONTACT:	JOE KESSI
EMAIL:	joek@fidelisfirst.com

APPLICANT

NAME:	BRAD HENDRICKSON
ADDRESS:	134 N RIVER STREET ST. HELENS, OR 97051
PHONE:	(503) 310-0235
CONTACT:	BRAD HENDRICKSON
EMAIL:	3232brad@gmail.com

PROJECT INFORMATION

ZONING:	R-4
PROPOSED USE:	RESIDENTIAL
IMPERVIOUS AREA:	±17,700 SF
PERVIOUS AREA:	±51,560 SF
VERTICAL DATUM:	NAVD88

DRAWING INDEX

DATE: 11/24/2025
REVISED PRINT
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DATE: 02/10/2025
PRELIMINARY
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FOR CONSTRUCTION

REV.	REVISION RECORD	DATE
A	INCORPORATE PRE-APP COMMENTS	03/17/2025
B	1ST COMPLETENESS REVIEW	07/01/2025

Lower Columbia Engineering
St. Helens, Oregon
(503) 366-0399

PROJ. NO.	3671	COVER SHEET	
DWG. BY	CAB	MAPLE STREET SUBDIVISION	
APPR. BY		BRAD HENDRICKSON	SHEET G-1
FILE	D-3671-G-1-B	DATE 01/13/2025	

Exhibit 4A

TREE LEGEND

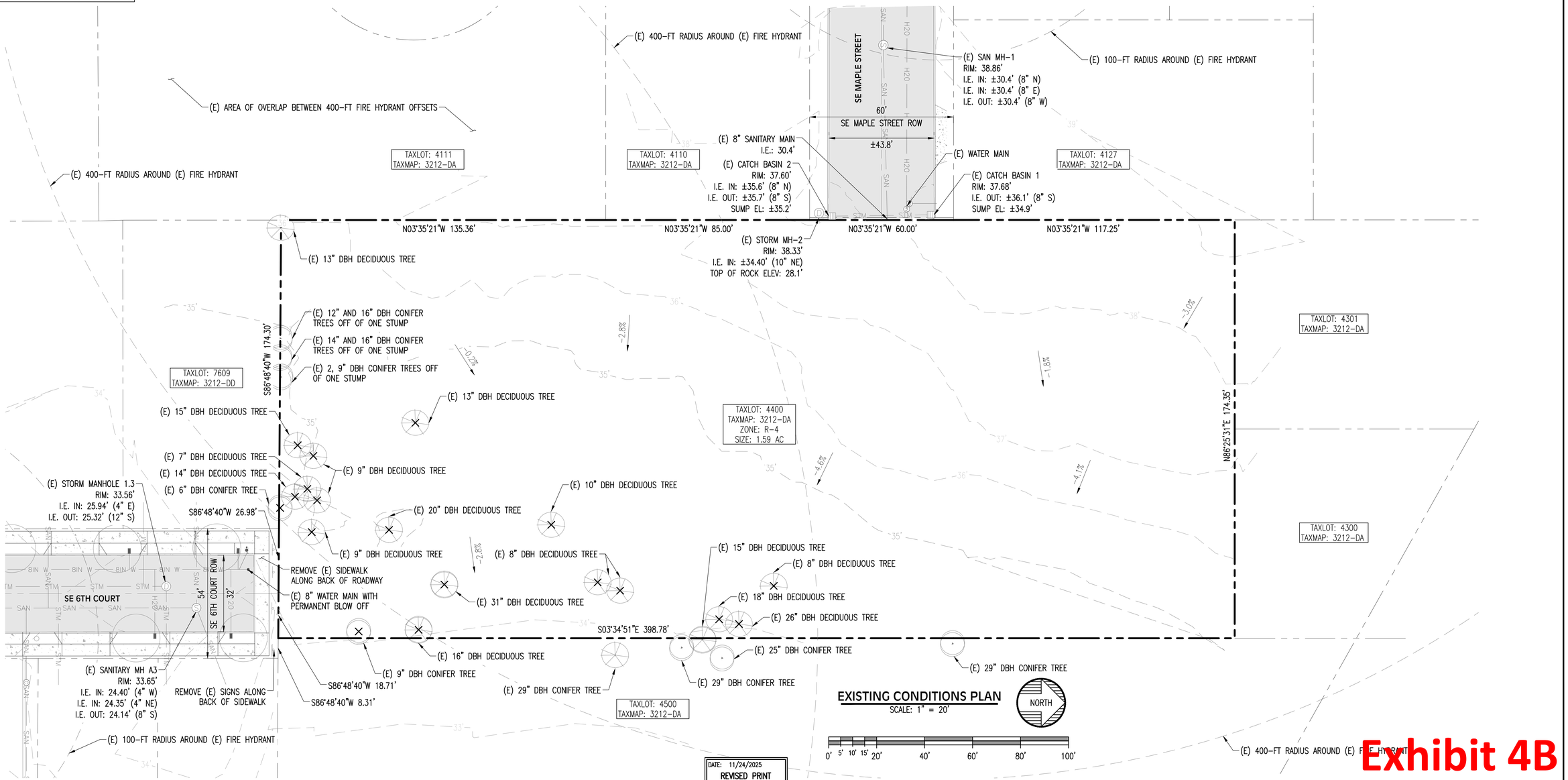
(TREES NOT DRAWN TO SCALE)

- (E) DECIDUOUS TREE TO REMAIN
- (E) CONIFER TREE TO REMAIN
- (E) DECIDUOUS TREE TO BE REMOVED
- (E) CONIFER TREE TO BE REMOVED

SPECIAL NOTE

INVERT ELEVATIONS WITHIN MAPLE STREET FOR EXISTING UTILITIES HAVE BEEN PROVIDED BY JOHNSON LAND SURVEYING AND WERE PROVIDED UTILIZING THE NGVD29 VERTICAL DATUM. ELEVATIONS HAVE BEEN APPROXIMATELY ADJUSTED TO NAVD88 BY ADDING 3.6'. EXACT ELEVATIONS TO BE UPDATED BY JOHNSON LAND SURVEYING AT A LATER DATE.

INVERT ELEVATIONS WITHIN SE 6TH COURT HAVE BEEN UTILIZED PER THE AS-BUILT SET FOR THE THOMPSON WOODS SUBDIVISION AND ARE UTILIZING THE NAVD88 VERTICAL DATUM.



EXISTING CONDITIONS PLAN

SCALE: 1" = 20'

DATE: 11/24/2025
REVISED PRINT
VOID ALL PREVIOUS

DATE: 02/10/2025
PRELIMINARY
NOT
FOR CONSTRUCTION

REV.	REVISION RECORD	DATE
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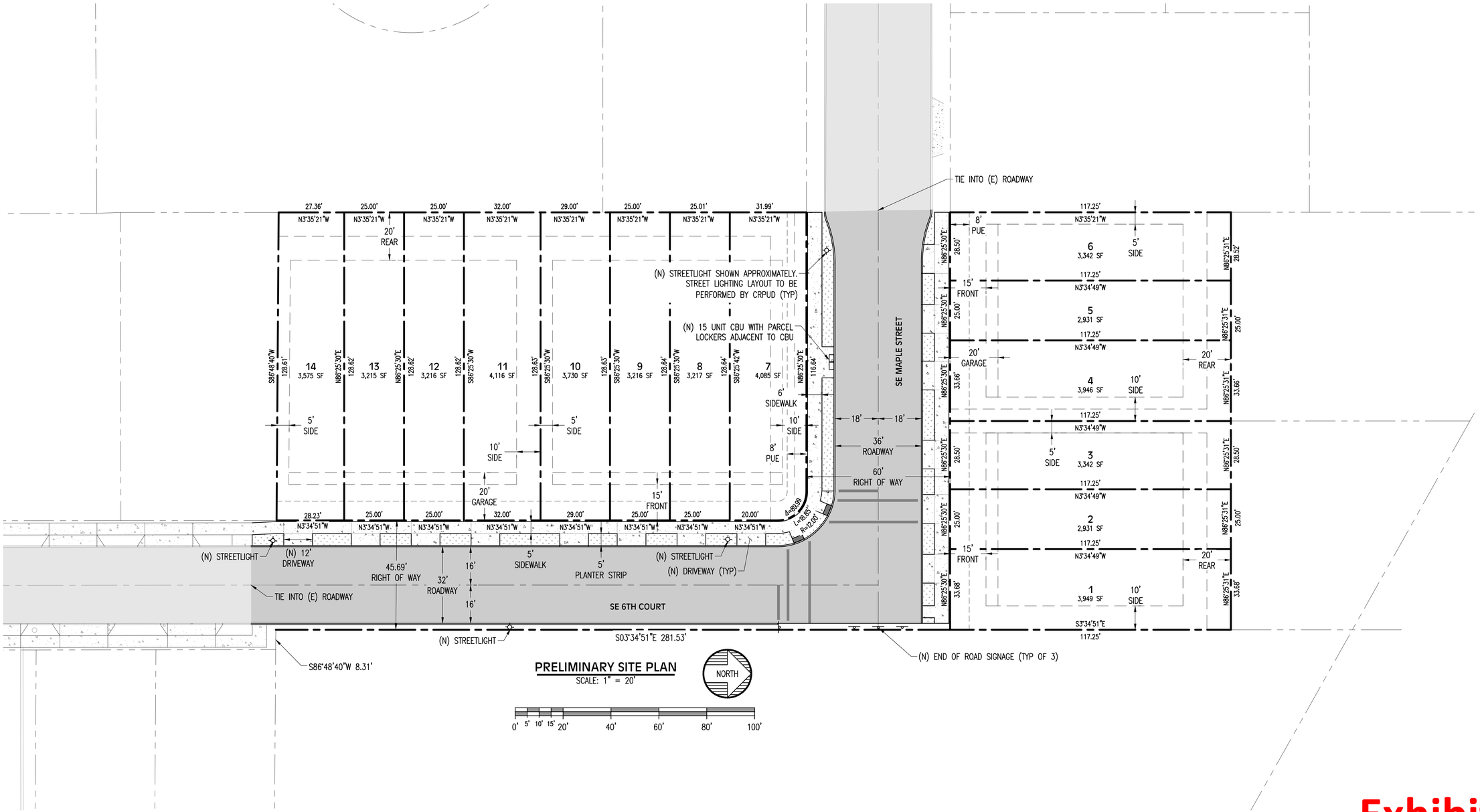
PROJ. NO.	3671	EXISTING CONDITIONS PLAN	
DWG. BY	CAB	MAPLE STREET SUBDIVISION	
APPR. BY		BRAD HENDRICKSON	SHEET C-1
FILE	D-3671-C-1-B	DATE 01/13/2025	

Exhibit 4B



PRELIMINARY SITE PLAN

SCALE: 1" = 20'

NORTH

0' 5' 10' 15' 20' 40' 60' 80' 100'

Exhibit 4C

DATE: 11/24/2025
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FOR CONSTRUCTION

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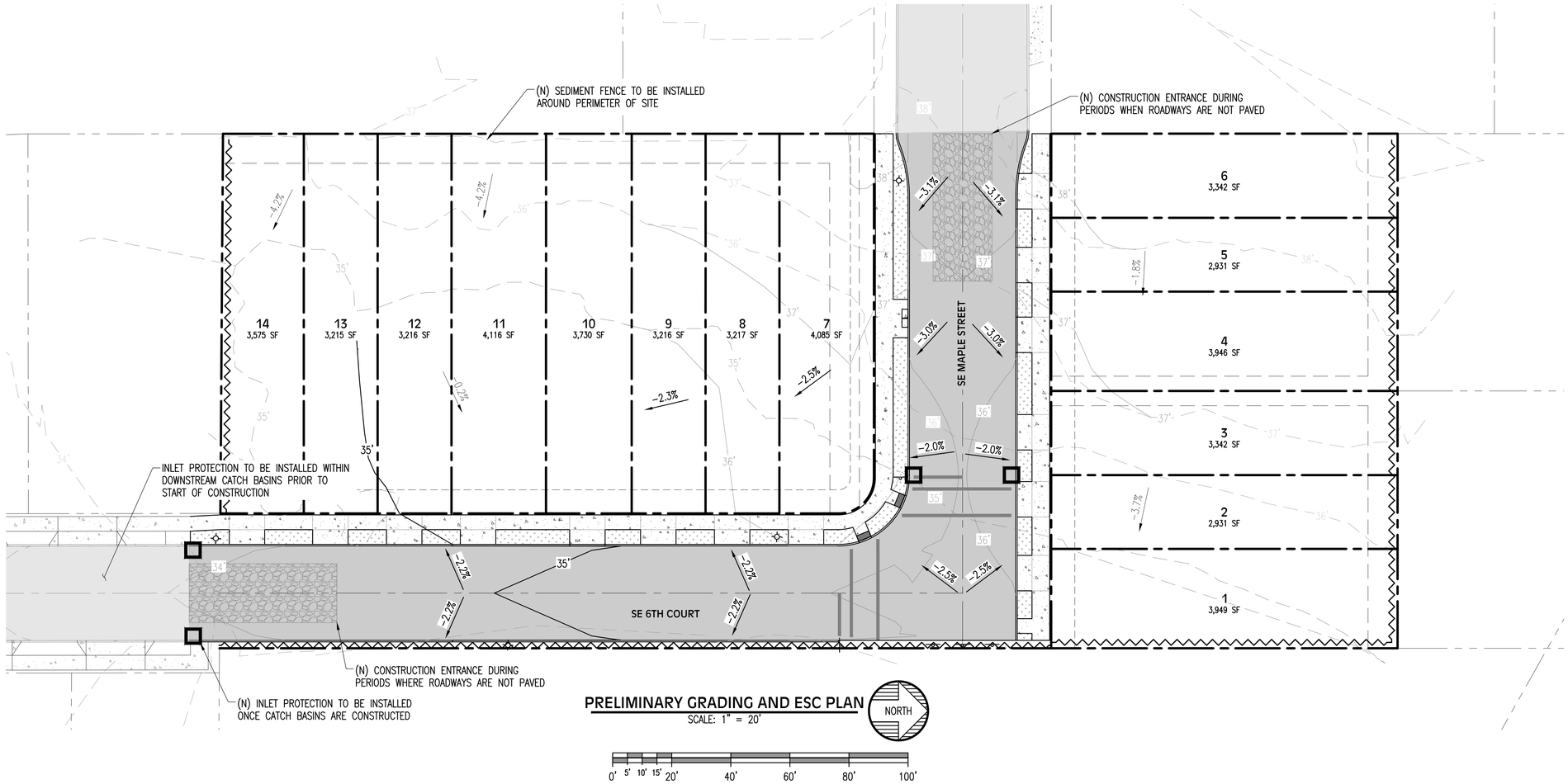
(503) 366-0399

PROJ. NO. 3671	PRELIMINARY SITE PLAN		
DWG. BY CAB	MAPLE STREET SUBDIVISION		
APPR. BY	BRAD HENDRICKSON	SHEET	C-2
FILE D-3671-C-2-B	DATE 01/13/2025		



PRELIMINARY GRADING AND ESC PLAN

SCALE: 1" = 20'

NORTH

0' 5' 10' 15' 20' 40' 60' 80' 100'

Exhibit 4D

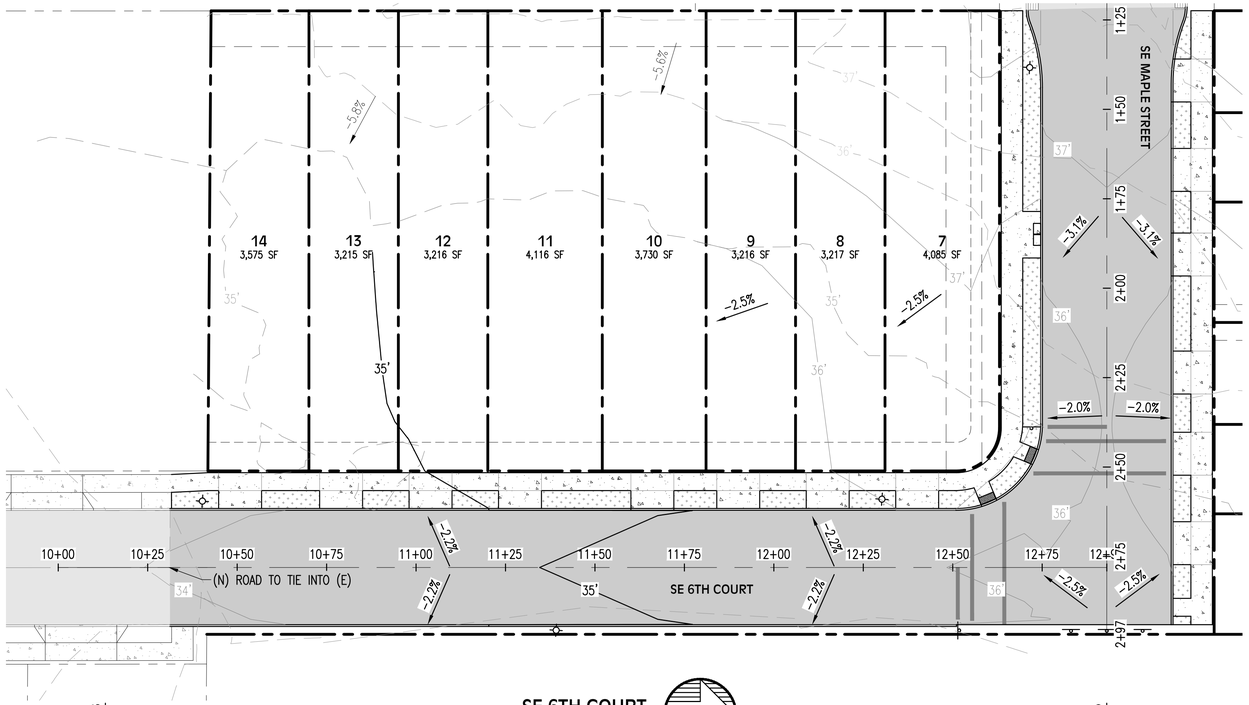
DATE: 11/24/2025
REVISED PRINT
VOID ALL PREVIOUS

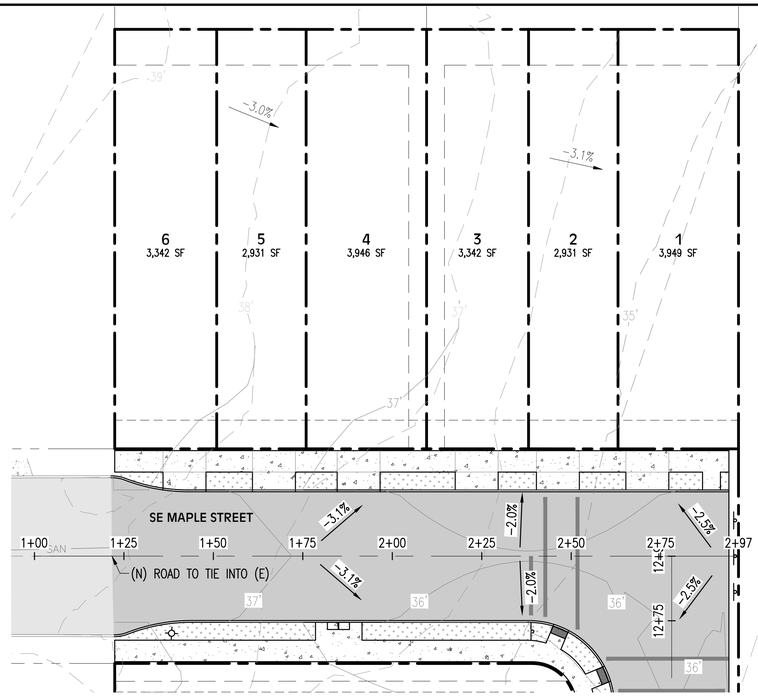
DATE: 02/10/2025
PRELIMINARY
NOT
FOR CONSTRUCTION

REV.	REVISION RECORD	DATE
A	INCORPORATE PRE-APP COMMENTS	03/17/2025
B	1ST COMPLETENESS REVIEW	07/01/2025

Lower Columbia Engineering
St. Helens, Oregon
(503) 366-0399

PROJ. NO. 3671	PRELIMINARY GRADING AND ESC PLAN		
DWG. BY CAB	MAPLE STREET SUBDIVISION		
APPR. BY	BRAD HENDRICKSON	SHEET	C-3
FILE D-3671-C-3-B	DATE 01/13/2025		



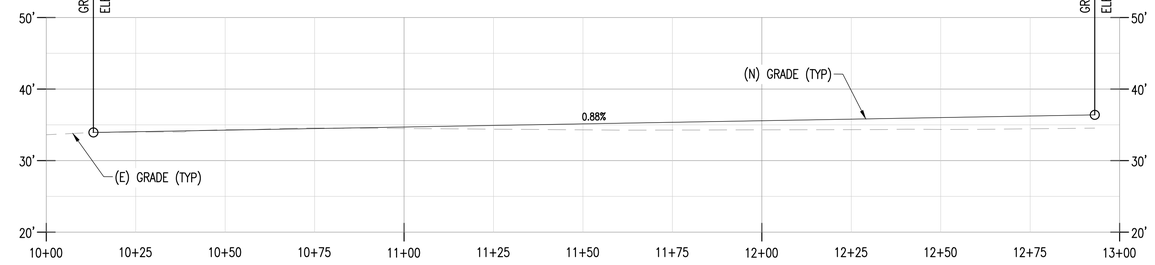


SE 6TH COURT

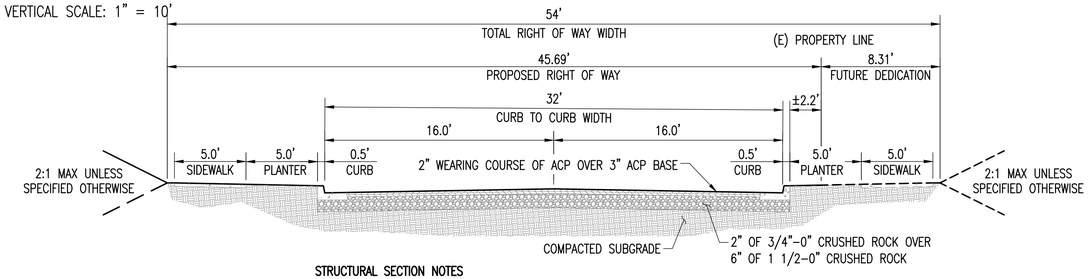
SCALE: 1" = 20'

NORTH

0' 5' 10' 15' 20' 40' 60' 80' 100'



SE 6TH COURT PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'



STRUCTURAL SECTION NOTES

ASPHALT: 91%/92% OF RICE DENSITY AASHTO T-209
SUBGRADE AND BASE ROCK: COMPACTED TO 95% RELATIVE DENSITY PER AASHTO T-180.

SE 6TH COURT STREET SECTION

SCALE: 1" = 5'

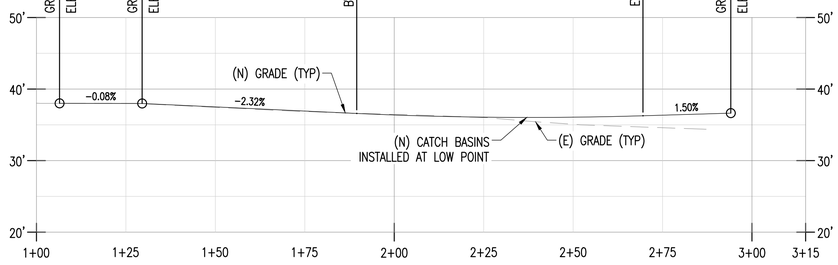
0' 1' 2' 3' 4' 5' 10' 15' 20' 25'

SE MAPLE STREET

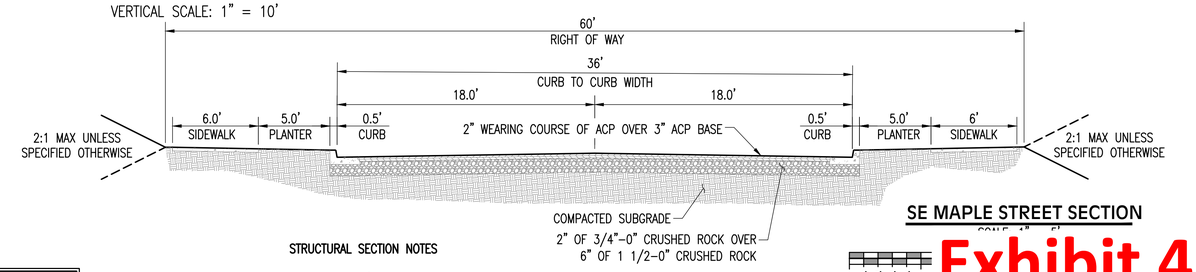
SCALE: 1" = 20'

NORTH

0' 5' 10' 15' 20' 40' 60' 80' 100'



SE MAPLE STREET PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'



STRUCTURAL SECTION NOTES

ASPHALT: 91%/92% OF RICE DENSITY AASHTO T-209
SUBGRADE AND BASE ROCK: COMPACTED TO 95% RELATIVE DENSITY PER AASHTO T-180.

SE MAPLE STREET SECTION

0' 1' 2' 3' 4' 5'

Exhibit 4E

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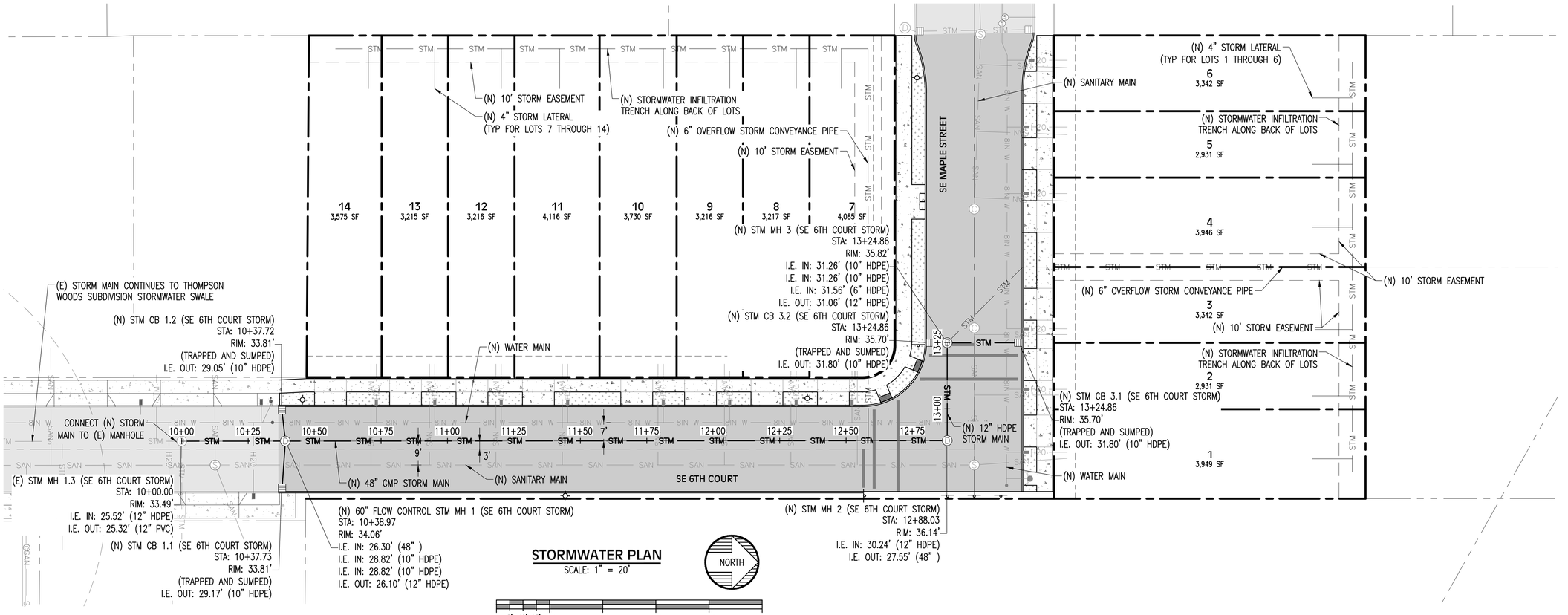
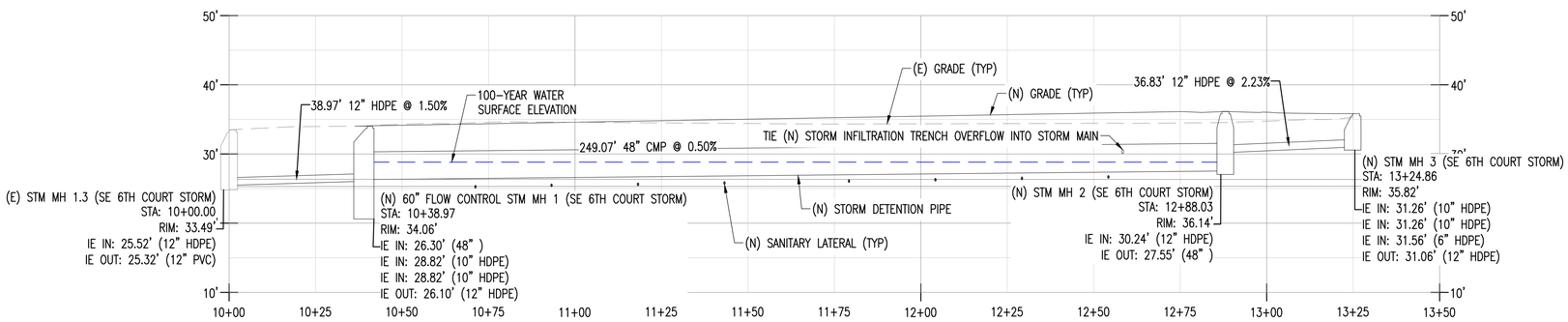
St. Helens, Oregon
(503) 366-0399

PROJ. NO.	3671	STREET PROFILE AND CROSS SECTIONS	
DWG. BY	CAB	MAPLE STREET SUBDIVISION	
APPR. BY	BRAD HENDRICKSON	SHEET	C-4
FILE	D-3671-C-4-B	DATE	01/13/2025





SE 6TH COURT STORM PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'

DATE: 11/24/2025
REVISED PRINT
VOID ALL PREVIOUS

DATE: 02/10/2025
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FOR CONSTRUCTION

REV.	REVISION RECORD	DATE
A	INCORPORATE PRE-APP COMMENTS	03/17/2025
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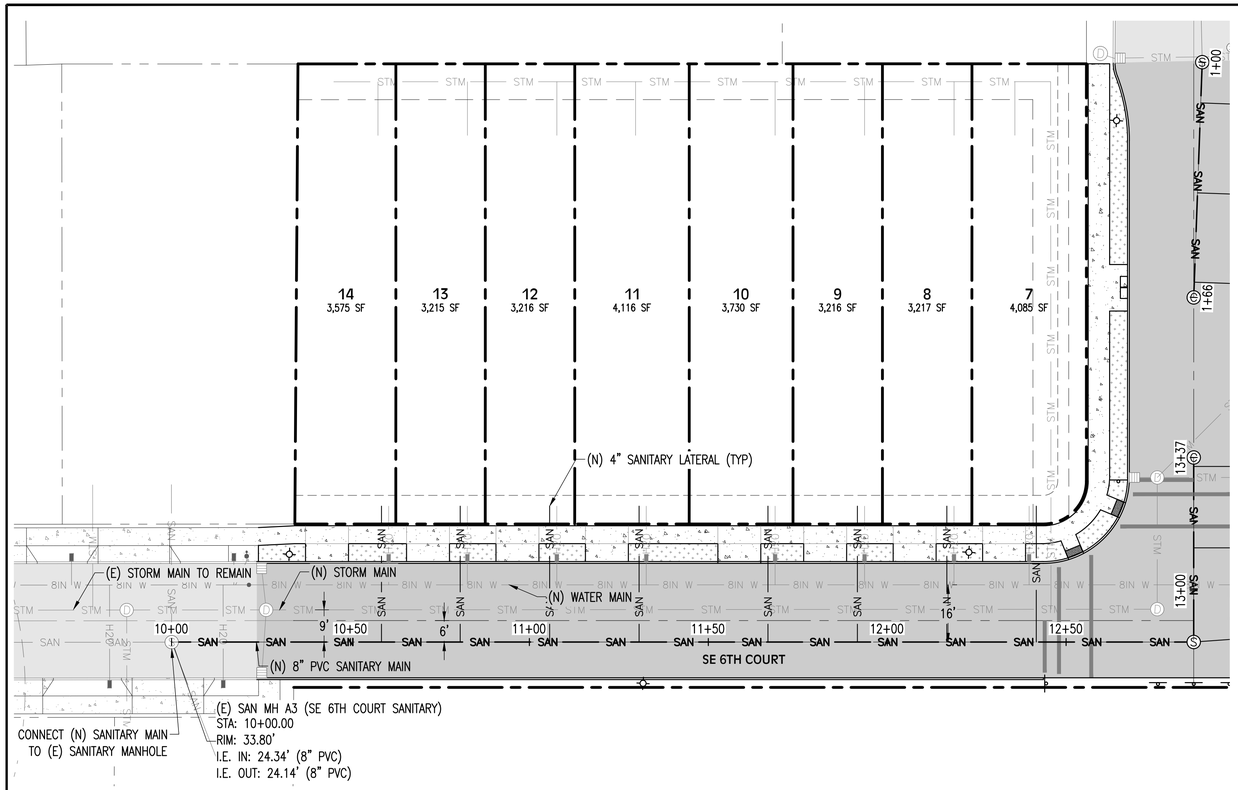
St. Helens, Oregon
(503) 366-0399

PROJ. NO. 3671	STORMWATER PLAN		
DWG. BY CAB	MAPLE STREET SUBDIVISION		
APPR. BY	BRAD HENDRICKSON	SHEET	C-5
FILE D-3671-C-5-B	DATE 01/13/2025		

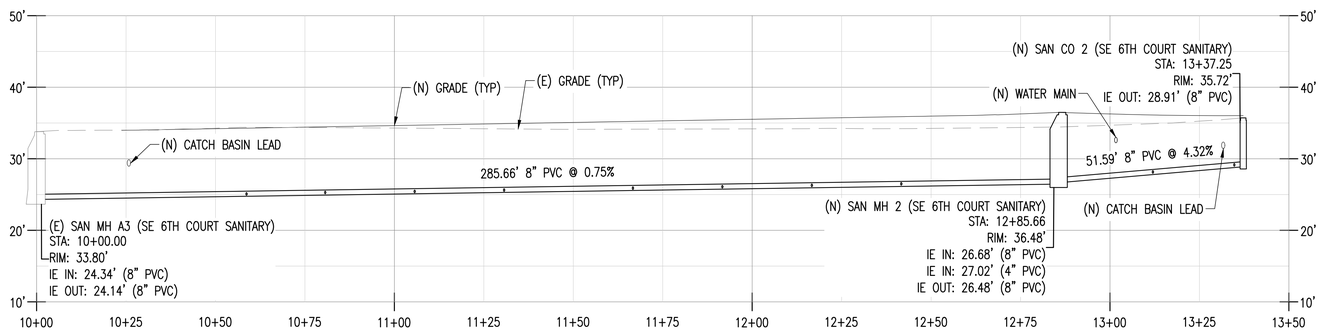
Exhibit 4F



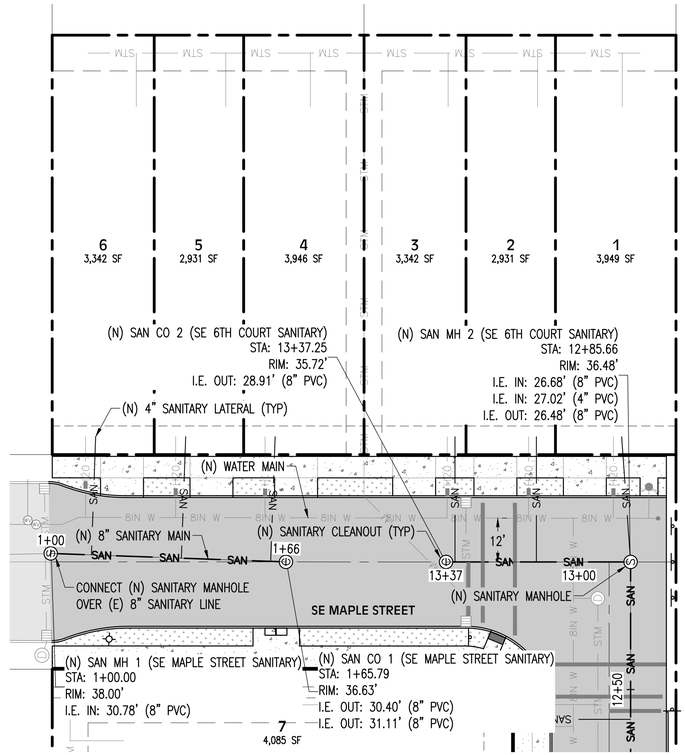
SE 6TH COURT SANITARY
SCALE: 1" = 20'

NORTH

0' 5' 10' 15' 20' 40' 60' 80' 100'



SE 6TH COURT SANITARY PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'



SE MAPLE STREET SANITARY
SCALE: 1" = 20'

NORTH

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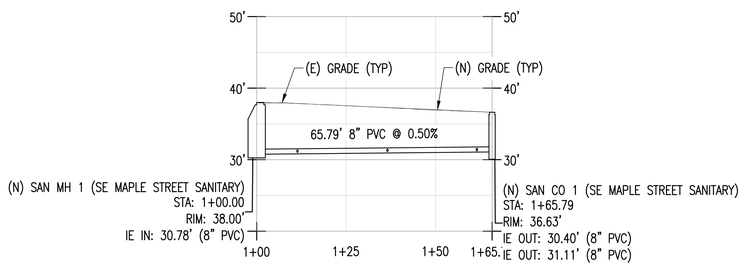

SE MAPLE STREET SANITARY PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'

DATE: 11/24/2025
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REV.	REVISION RECORD	DATE
A	INCORPORATE PRE-APP COMMENTS	03/17/2025
B	1ST COMPLETENESS REVIEW	07/01/2025

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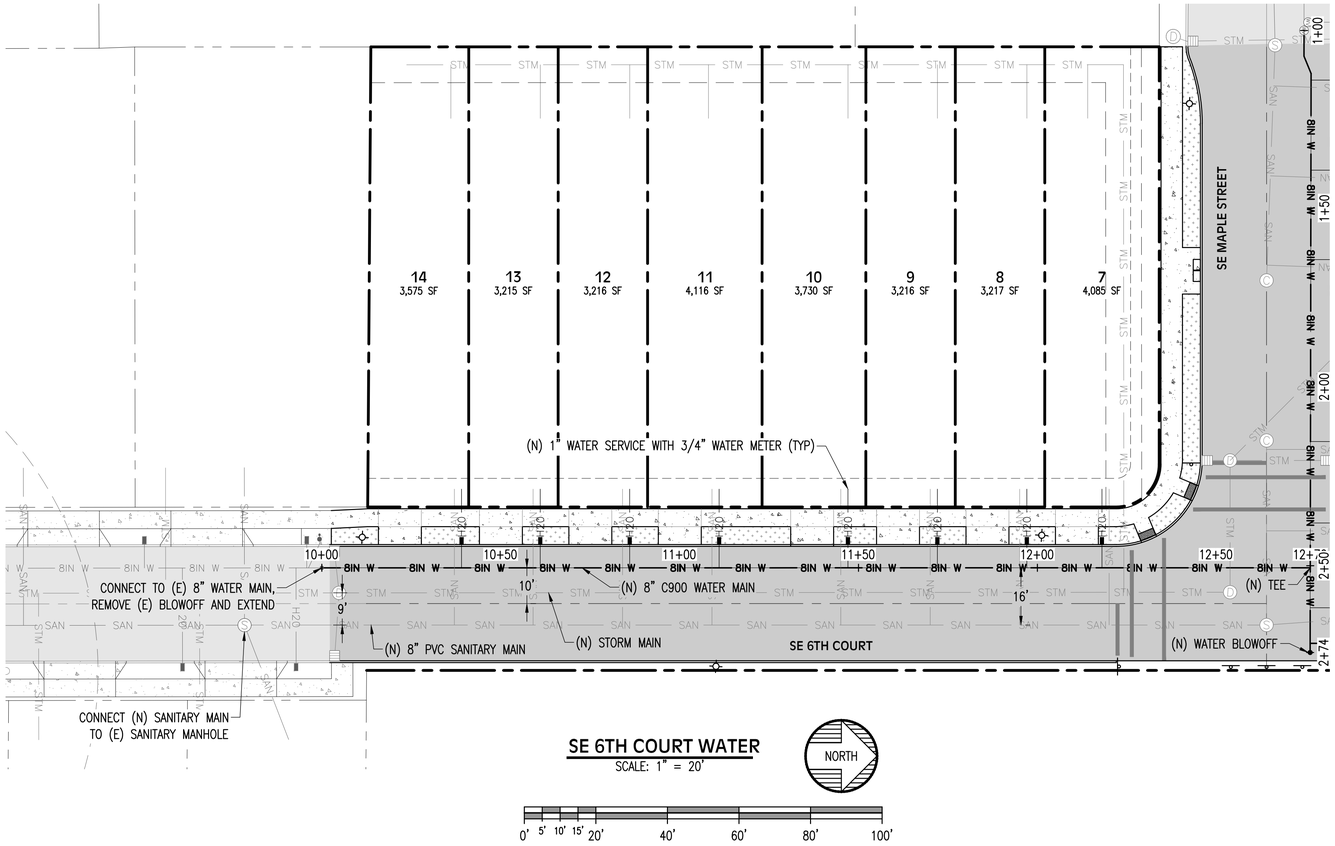
St. Helens, Oregon
(503) 366-0399

PROJ. NO. 3671	SANITARY PLAN		
DWG. BY CAB	MAPLE STREET SUBDIVISION		
APPR. BY	BRAD HENDRICKSON	SHEET	C-6
FILE D-3671-C-6-B	DATE 01/13/2025		

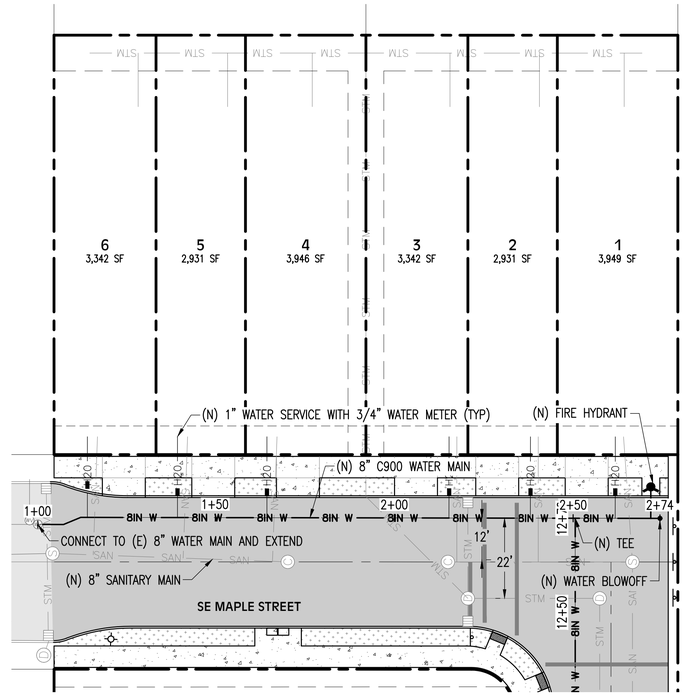
Exhibit 4G



SE 6TH COURT WATER
SCALE: 1" = 20'

NORTH

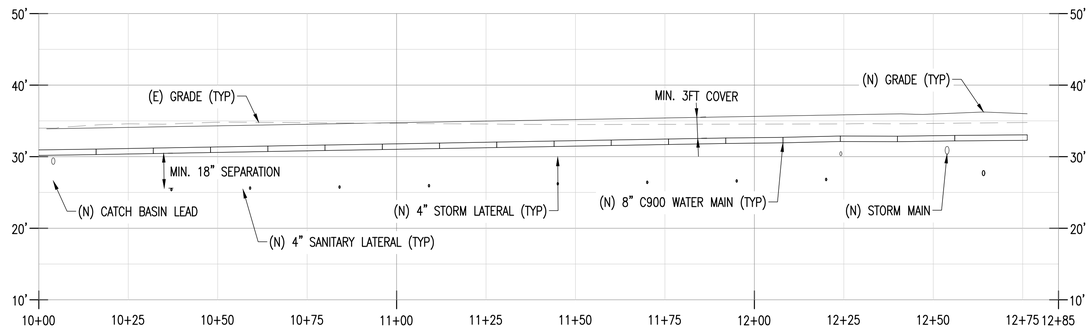
0' 5' 10' 15' 20' 40' 60' 80' 100'



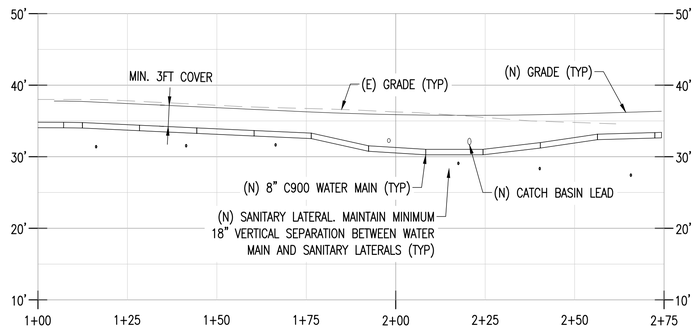
SE MAPLE STREET WATER
SCALE: 1" = 20'

NORTH

0' 5' 10' 15' 20' 40' 60' 80' 100'



SE 6TH COURT WATER PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'



SE MAPLE STREET WATER PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'

Exhibit 4H

DATE: 11/24/2025
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FOR CONSTRUCTION

REV.	REVISION RECORD	DATE
A	INCORPORATE PRE-APP COMMENTS	03/17/2025
B	1ST COMPLETENESS REVIEW	07/01/2025

Lower Columbia Engineering
St. Helens, Oregon
(503) 366-0399

PROJ. NO. 3671	WATER PLAN		
DWG. BY CAB	MAPLE STREET SUBDIVISION		
APPR. BY	BRAD HENDRICKSON	SHEET	C-7
FILE D-3671-C-7-B		DATE 01/13/2025	

NOTE

MAINTAIN A MINIMUM OF 5 FEET OF HORIZONTAL SEPARATION BETWEEN STREET TREES AND UTILITY SERVICES.

LANDSCAPE PLAN

SCALE: 1" = 20'

NORTH

0' 5' 10' 15' 20' 40' 60' 80' 100'

DATE: 11/24/2025
REVISED PRINT
VOID ALL PREVIOUS

DATE: 02/10/2025
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REV.	REVISION RECORD	DATE
A	INCORPORATE PRE-APP COMMENTS	03/17/2025
B	1ST COMPLETENESS REVIEW	07/01/2025

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St. Helens, Oregon
(503) 366-0399

PROJ. NO.	3671	LANDSCAPE PLAN	
DWG. BY	CAB	MAPLE STREET SUBDIVISION	
APPR. BY		BRAD HENDRICKSON	SHEET C-8
FILE	D-3671-C-8-B	DATE 01/13/2025	

Exhibit 4I

FUTURE ACCESS AND CIRCULATION PLAN

SCALE: 1" = 100'

DATE: 11/24/2025
REVISED PRINT
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DATE: 05/22/2025
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REV.	REVISION RECORD	DATE
A	1ST COMPLETENESS REVIEW	07/01/2025

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St. Helens, Oregon
(503) 366-0399

PROJ. NO. 3671	FUTURE ACCESS AND CIRCULATION PLAN		
DWG. BY CAB	MAPLE STREET SUBDIVISION		
APPR. BY	BRAD HENDRICKSON	SHEET	C-9
FILE D-3671-C-9-A	DATE 04/16/2025		

Exhibit 4J

Lower Columbia Engineering
58640 McNulty Way
St. Helens, OR 97051
503.366.0399

Technical Memorandum

To: Scappoose Planning Department
From: Chase Berg, P.E.
Date: November 24th, 2025
Subject: Maple Street Subdivision - Trip Generation Analysis
Project: 3671

This memorandum has been written to summarize the analyzed trips in accordance, with the City of Scappoose municipal code 17.154.030(S), for the proposed development. A trip generation analysis was performed for the proposed Maple Street Subdivision located at the end of SE Maple Street in Scappoose, Oregon. The subject property is tax lot 5709 on tax map 3212-DA and is currently a vacant lot contributing an insignificant number of daily trips. As part of the development, SE Maple Street (Neighborhood Collector) will be extended east terminating along the eastern property line and SE 6th Court (local street) will be extended north to connect into the extended portion of SE Maple Street. Connections will be made possible to Columbia River Highway via SE Maple Street or by SE 5th Street to SE High School Way.

ITE Trip Generation Handbook, Edition 11, was referenced to calculate the expected number of total daily trips and Peak hour of adjacent street traffic. Based on the ITE Trip Generation Handbook, the proposed improvements fall under land use Single-Family Attached Housing category (215), due to the development of townhouses. Fitted Curve Equations from the ITE Trip Generation Handbook were used to assess the trip counts with an R^2 value of at least 0.91 and had at least 22 data points.

The proposed subdivision will create 14 lots within the subject property for the purpose of constructing single-family attached homes. For the purposes of this trip generation analysis, a single-family attached housing (215) designation was utilized for proposed trips. The following data shows the proposed development is not anticipated to generate more than 100 daily trips or 10 peak hour trips.

The development is within 0.5 miles from Scappoose Middle School, 0.5 miles from Otto Peterson Elementary School and 0.7 miles from Scappoose High School. There are a few areas with established pedestrian pathways to these destinations from the development area, but a majority of the routes to these areas do not have established pedestrian pathways.

With these findings, it is expected that this TIS Letter is sufficient to meet the Scappoose Municipal Code requirements for a Transportation Impact Study with the project's land use application and no traffic related improvements are believed to be necessary.

Sight Distance and Safety Evaluation

City of Scappoose Engineering staff have presented a concern that has been expressed by the public of limited sight distance at the intersection of SE 6th Court and SE Elm Street. This limited sight distance concern has been described in part due to the close proximity of cars parking along the west side of SE 6th Court near the entrance with SE Elm Street. With this development only increasing trips through SE 6th Court and not proposing any improvements to this intersection, it is recommended that City staff perform an intersection site distance evaluation to ensure that there

are no present safety concerns. As City staff has already recommended, the installation of a no parking sign on the west side of SE 6th Court near the intersection of SE Elm and SE 6th Court could be a solution to this issue. Further investigation and evaluation is recommended to be completed by City staff.

Table 1. Proposed Use Trip Estimation (Weekday PM Peak Hour of Adjacent Street Traffic)

ITE	DESCRIPTION	WEEKDAY		
		Dwelling Units	Fitted Curve Equation	Total Trips
215	Single-Family Attached Housing	14	T=0.6(X)-3.93	4.47
	Proposed Use Trips			**5**

Table 1. Proposed Use Trip Estimation (Weekday AM Peak Hour of Adjacent Street Traffic)

ITE	DESCRIPTION	WEEKDAY		
		Dwelling Units	Fitted Curve Equation	Total Trips
215	Single-Family Attached Housing	14	T=0.52(X)-5.70	1.58
	Proposed Use Trips			**2**

Table 3. Proposed Use Trip Estimation (Total Weekday Vehicle Trip Generation per Dwelling Unit)

ITE	DESCRIPTION	WEEKDAY		
		Dwelling Units	Fitted Curve Equation	Total Trips
215	Single-Family Attached Housing	14	T=7.62(X)-50.48	56.2
	Proposed Use Trips			**57**

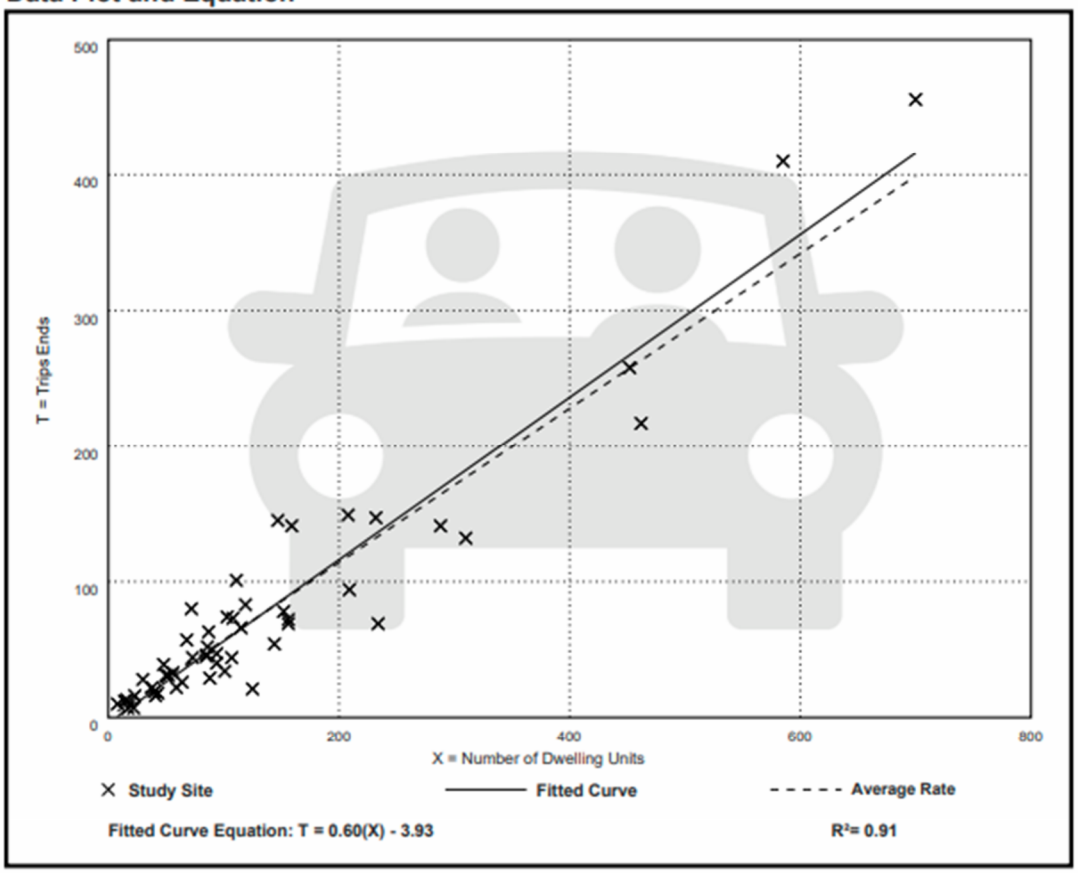
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 51
Avg. Num. of Dwelling Units: 136
Directional Distribution: 57% entering, 43% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation



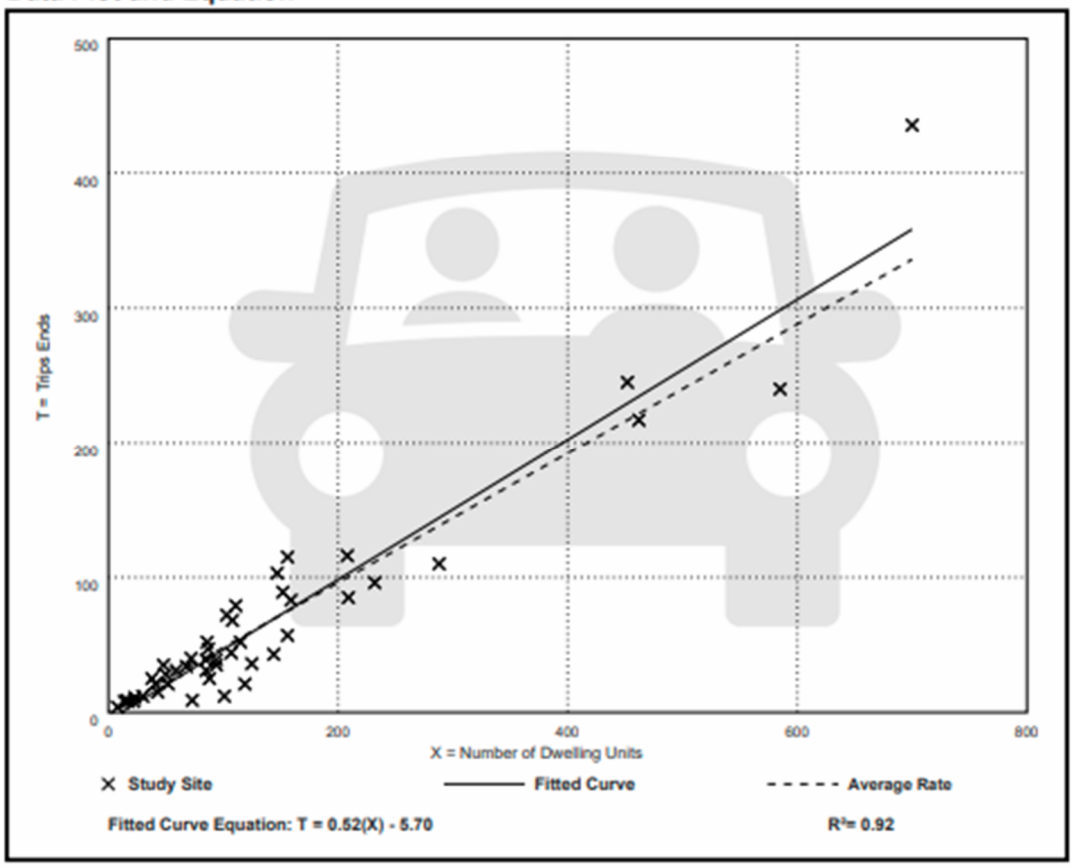
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 46
Avg. Num. of Dwelling Units: 135
Directional Distribution: 31% entering, 69% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



Single-Family Attached Housing
(215)

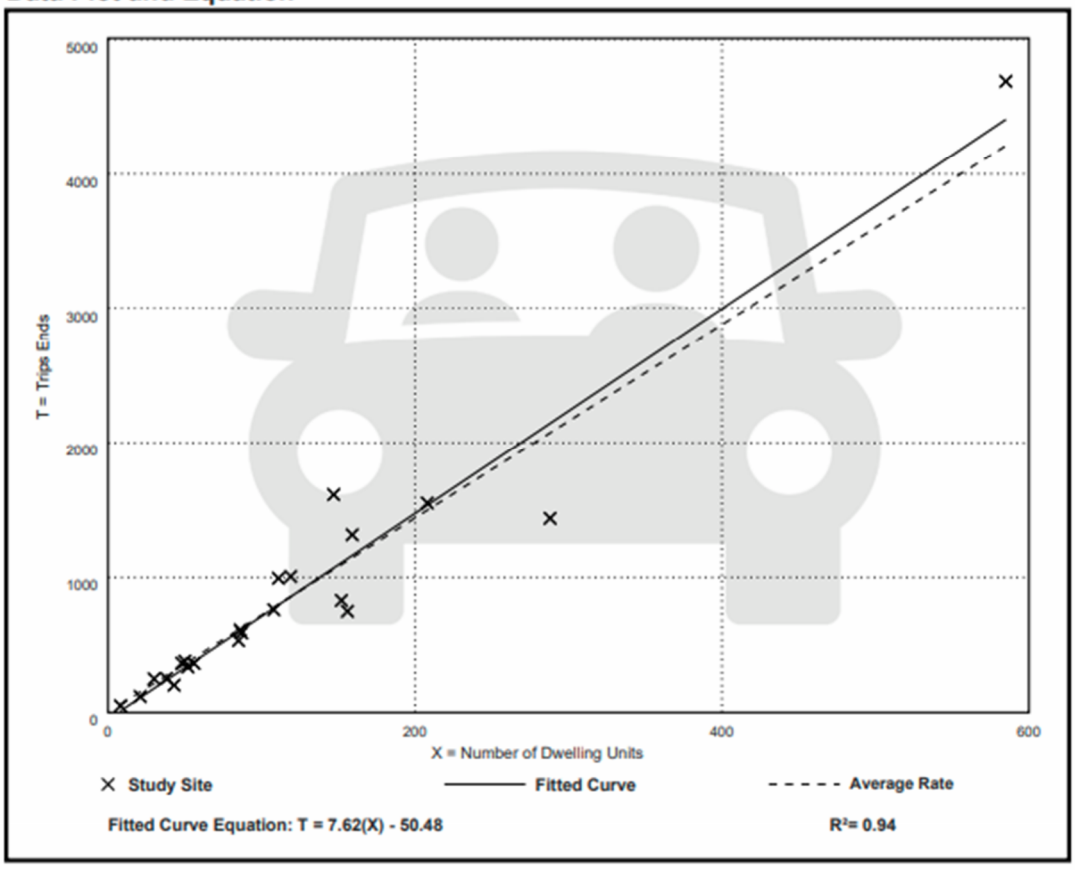
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. Num. of Dwelling Units: 120
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61

Data Plot and Equation



Lower Columbia Engineering
58640 McNulty Way
St. Helens, OR 97051
503.366.0399

Project: Maple Street Subdivision
Type of Project: Residential
Scappoose, Oregon

Stormwater Report
November 24th, 2025
LCE Project No. 3671

The above Seal certifies that Chase A Berg, P.E. has general knowledge of City of Scappoose Public Works Standards Section 2.0000 and the City of Scappoose Municipal Code Section 13.22.

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Attachments

This report pertains to the proposed private improvements described below based on specific requests by our clients. Lower Columbia Engineering is not responsible for complying with any conditions of approval or adjacent storm drainage issues that are outside of the project area. Contact Lower Columbia Engineering with any questions or uncertainties. Maintenance of this system and verification of property line locations are the responsibility of others.

Project Description

The proposed development consists of a 14-lot subdivision located in Scappoose, Oregon at the end of SE Maple Street and is located on tax lot 4400 of tax map 030212DA. Future build-out of the subdivision is currently planned for single-family townhomes. Future plans will be submitted during the building permit process with further details.

Existing Conditions

The existing lot occupies a total of 1.59 acres and is entirely comprised of grasses and existing vegetation. Existing on-site stormwater appears to sheet flow in both the southern and eastern directions where it naturally infiltrates into the ground. Located to the south of the proposed development, the Thompson Woods Subdivision is a 9-lot residential subdivision which utilizes a stormwater facility providing both a water quality and flow control component for a variety of storm events.

Design Method

Proposed stormwater management is targeted to minimize the total amount of runoff produced from the increase in impervious area. A stormwater flow control manhole and detention pipe has been designed within SE 6th Court to collect stormwater and control flow rates for a variety of events detailed below. Downstream of this proposed flow control manhole is an existing stormwater facility owned and maintained by the Thompson Woods Subdivision. Stormwater events for this site were calculated using the SBUH method given a Type IA storm type within the HydroCAD software system. Western Regional Climate Center's Precipitation Frequency Maps were referenced and can be found within table 1. Soil Survey Maps from the NRCS were referenced to determine the site's soil compositions as Latourell Silt Loam with a hydrologic soil group of B (see attached soil survey). Additional infiltration results have been conducted by Geopacific Engineering in their report dated May 6th, 2025. Within this report, infiltration results are summarized within table 1.

Table 1. Summarized Infiltration Results from Geotechnical Engineering Report dated May 6th, 2025

Depth (bgs)	Infiltration Rate (inches/hr)
7.5	80
8	35
12	80
4	4.3

Table 2. Rainfall Design Events

Design Storm Event	Storm Event Intensity (Inches/24 Hours)
Water Quality	1.20
2-Year	2.40
25-Year	3.80
50-Year	4.10
100-Year	4.70

Stormwater Management Design

Stormwater runoff from the proposed development will be managed by allowing runoff from roofs and foundation drains to be conveyed towards the back of each lot towards an infiltration trench. This 2-foot wide infiltration trench has been designed to treat and control stormwater runoff rate with an included overflow that will be utilized once capacity has been reached within infiltration trench. Both overflow pipes are currently designed to tie into the public stormwater main in either Maple Street or 6th Court.

Stormwater within the public right of way has been designed to direct stormwater towards new catch basins where water will then be directed into the public storm main. Along the south side of SE 6th Court, a flow control manhole with a 5 ft sump will be constructed with a 48" CMP detention pipe along a majority of 6th Court in order to assist with detaining and controlling flow rates. As stormwater flows through the detention pipe and into the flow control manhole, water levels will rise within the manhole and start to surcharge back into the detention pipe. A series of orifices have been designed within the flow control manhole to release stormwater at controlled rates. During larger stormwater events, an overflow device has been provided to provide safe conveyance of stormwater. As stormwater leaves the flow control manhole, it will continue downstream where it will be conveyed through the existing Thompson Woods Subdivision and eventually outfall into their stormwater facility.

Table 3. Pre versus post construction runoff rates

Design Storm Event	Pre-Development Peak Flow Rate (CFS)	Post-Development Peak Flow Rate (CFS)
Water Quality	0.02	0.02
2-Year	0.21	0.06
25-Year	0.67	0.66
50-Year	0.77	0.74
100-Year	0.99	0.92

Table 4. Pre versus post Water Surface Elevations and Residence Time

Design Storm Event	Water Surface Elevation (Feet)
Water Quality	27.82
2-Year	28.60
25-Year	28.85
50-Year	28.86
100-Year	28.89

* *The provided water surface elevations are calculated within the stormwater detention pipe.*

Downstream Analysis

As described above, a flow control manhole and a stormwater detention pipe will be constructed within SE 6th Court to control stormwater flow rates. As seen within table 3, post developed flow rates have been decreased back to pre-developed flow rates. Neither the City of Scappoose, community members, or the Thompson Woods Subdivision have communicated concerns with the existing Thompson Woods Subdivision stormwater swale. As the proposed development is able to manage stormwater on-site, there

are no anticipated concerns having the proposed system connect into the public storm main within SE 6th Court.

After leaving the Thompson Woods Subdivision stormwater facility, the City of Scappoose has identified the storm main in SE Elm to have downstream deficiencies. Due to the on-site system being designed to match pre-developed flow rates, no additional stormwater contributions to the Elm Street stormwater main are anticipated as a result of the proposed development.

Operations and Maintenance Overview

The proper implementation and maintenance of the proposed facilities located on private property shall be the responsibility of individual property owners. Proposed infrastructure located within the public right of way including but not limited to pipes, catch basins, and manholes, and the stormwater detention pipe will be the responsibility of the City of Scappoose. In either case, it is critical that stormwater infrastructure be kept free of debris in order to facilitate effective conveyance and longevity of the system. Proposed catch basins shall be cleaned regularly with scheduled inspections to make sure that inlets and outlets aren't plugged by trash, leaves, or any additional debris. Similar inspections and maintenance shall be afforded to storm laterals and weep holes which shall be kept free of debris to make sure that pipes are not plugged.

Conclusion

The Maple Street Subdivision includes stormwater improvements to effectively convey water from proposed single-family townhomes through a stormwater detention pipe and flow control manhole where it is conveyed through the Thompson Woods Subdivision into an existing stormwater swale. This system has been designed to effectively meet the City of Scappoose standards. Responsibility for the proper implementation and maintenance of this facility belongs to the property owners and the City of Scappoose as outlined in this report.

Real-World Geotechnical Solutions
Investigation • Design • Construction Support

Geotechnical Engineering Report

Project Information:	Maple Street Cottages GeoPacific Project No. 19-5167 Revised May 6, 2025
Site Location:	SE Maple St & SE Cypress Ct Scappoose, Oregon 97056 Columbia County Tax Lot 4400 Tax Map 3N2W12DA4400
Client:	Mr. Joe Kessi OHM Equity Partners 33470 Chinook Plaza, Suite 213 Scappoose, Oregon 97056 Phone: (503) 310-7921 Email: joek@assuracedevelopment.com

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1.0 PROJECT INFORMATION

This report presents the results of a geotechnical engineering study conducted by GeoPacific Engineering, Inc. (GeoPacific) for the above-referenced project. The purpose of our investigation was to evaluate subsurface conditions at the site, and to provide geotechnical recommendations for site development. This geotechnical study was performed in accordance with GeoPacific Proposal No. P-6903, dated February 28, 2019, and your subsequent authorization of our proposal and *General Conditions for Geotechnical Services*.

2.0 SITE AND PROJECT DESCRIPTION

As indicated on Figures 1 through 3, the subject site is located east of the intersection of SE Maple Street and SE Cypress Court in Scappoose, Oregon. The site consists of Columbia County Tax Lot 4400 on tax map 3N2W12DA4400, totaling approximately 1.59-acres in size. The site latitude and longitude are 45.754734, -122.869005, and the legal description is the NE ¼ SE ¼ of Section 12, T3N, R2W, Willamette Meridian. The site is bordered by SE Maple Street to the west, and by existing residential properties on all sides. Vegetation at the site primarily consists of grasses, weeds, blackberries, and other brush, with sparse trees on the margins. Based on review of available historical aerial photography it appears that the property has been regularly plowed and farmed since at least 1990. Topography at the site is relatively level to gently sloping to the east with site elevations ranging from approximately 31 to 35 feet above mean sea level (amsl).

Based upon communication with the client and review of a preliminary site plan prepared by Cascadia Planning and Development Services, GeoPacific understands that the proposed development at the site will consist of construction of a fourteen-lot residential subdivision, public street extensions of SE Maple Street and SE 6th Court, stormwater infiltration systems, and associated underground utility improvements. We anticipate that the homes will be constructed with typical spread foundations and wood framing, with maximum structural loading on column footings and continuous strip footings on the order of 10 to 35 kips, and 2 to 6 kips respectively. A grading plan has not been reviewed at this time, however we anticipate cuts and fills on the order of three feet or less.

3.0 REGIONAL GEOLOGIC SETTING

Regionally, the subject site lies within the Willamette Valley/Puget Sound lowland, a broad structural depression situated between the Coast Range on the west and the Cascade Range on the east. A series of discontinuous faults subdivide the Willamette Valley into a mosaic of fault-bounded, structural blocks (Yeats et al., 1996). Uplifted structural blocks form bedrock highlands, while down-warped structural blocks form sedimentary basins.

According to the *Geologic Map of the Saint Helens Quadrangle, Columbia County, Oregon, and Cowlitz and Clark Counties, Washington (U.S. Department of the Interior, U.S. Geological Survey. Evarts, C. Russell, 2004),* the site is underlain by Pleistocene and Pliocene-aged, basin-fill deposits consisting of clast-supported, pebble to cobble conglomerate (QTc). The conglomerate is commonly poorly to moderately well sorted, imbricated and cross bedded, and can contain minor lenses of basaltic or quartzose sand. The unit is overlaid by finer grained Holocene sediments in the flood plain to the east of the site.

The *Web Soil Survey (United States Department of Agriculture, Natural Resource Conservation Service (USDA NRCS 2019 Website)*, indicates that near-surface soils consist of the Latourell Silt Loam soil series. Latourell series soils generally consist of deep, well-drained soils that formed in stratified glacio-lacustrine deposits.

4.0 REGIONAL SEISMIC SETTING

At least three major fault zones capable of generating damaging earthquakes are thought to exist in the vicinity of the subject site. These include the Portland Hills Fault Zone, the Gales Creek-Newberg-Mt. Angel Structural Zone, and the Cascadia Subduction Zone.

4.1 Portland Hills Fault Zone

The Portland Hills Fault Zone is a series of NW-trending faults that include the central Portland Hills Fault, the western Oatfield Fault, and the eastern East Bank Fault. These faults occur in a northwest-trending zone that varies in width between 3.5 and 5.0 miles. The combined three faults reportedly vertically displace the Columbia River Basalt by 1,130 feet and appear to control thickness changes in late Pleistocene (approx. 780,000 years) sediment (Madin, 1990). The Portland Hills Fault occurs along the Willamette River at the base of the Portland Hills and is located approximately 4 miles south-southwest of the site. The Oatfield Fault occurs along the western side of the Portland Hills and is located approximately 13 miles southeast of the site. The East Bank Fault occurs along the eastern margin of the Willamette River, and is located approximately 9.5 miles southeast of the site. The accuracy of the fault mapping is stated to be within 500 meters (Wong, et al., 2000).

According to the USGS Earthquake Hazards Program, the fault was originally mapped as a down-to-the-northeast normal fault but has also been mapped as part of a regional-scale zone of right-lateral, oblique slip faults, and as a steep escarpment caused by asymmetrical folding above a south-west dipping, blind thrust fault. The Portland Hills fault offsets Miocene Columbia River Basalts, and Miocene to Pliocene sedimentary rocks of the Troutdale Formation. No fault scarps on surficial Quaternary deposits have been described along the fault trace, and the fault is mapped as buried by the Pleistocene aged Missoula flood deposits. No historical seismicity is correlated with the mapped portion of the Portland Hills Fault Zone, but in 1991 a M3.5 earthquake occurred on a NW-trending shear plane located 1.3 miles east of the fault (Yelin, 1992). Although there is no definitive evidence of recent activity, the Portland Hills Fault Zone is assumed to be potentially active (Geomatrix Consultants, 1995).

4.2 Gales Creek-Newberg-Mt. Angel Structural Zone

The Gales Creek-Newberg-Mt. Angel Structural Zone is a 50-mile-long zone of discontinuous, NW-trending faults that lies about 20 miles southwest of the subject site. These faults are recognized in the subsurface by vertical separation of the Columbia River Basalt and offset seismic reflectors in the overlying basin sediment (Yeats et al., 1996; Werner et al., 1992). A geologic reconnaissance and photogeologic analysis study conducted for the Scoggins Dam site in the Tualatin Basin revealed no evidence of deformed geomorphic surfaces along the structural zone (Unruh et al., 1994). No seismicity has been recorded on the Gales Creek Fault or Newberg Fault (the fault closest to the subject site); however, these faults are considered to be potentially active because they may connect with the seismically active Mount Angel Fault and the rupture plane of the 1993 M5.6 Scotts Mills earthquake (Werner et al. 1992; Geomatrix Consultants, 1995).

According to the USGS Earthquake Hazards Program, the Mount Angel fault is mapped as a high-angle, reverse-oblique fault, which offsets Miocene rocks of the Columbia River Basalts, and Miocene and Pliocene sedimentary rocks. The fault appears to have controlled emplacement of the Frenchman Spring Member of the Wanapum Basalts, and thus must have a history that predates the Miocene age of these rocks. No unequivocal evidence of deformation of Quaternary deposits has been described, but a thick sequence of sediments deposited by the Missoula floods covers much of the southern part of the fault trace.

4.3 Cascadia Subduction Zone

The Cascadia Subduction Zone is a 680-mile-long zone of active tectonic convergence where oceanic crust of the Juan de Fuca Plate is subducting beneath the North American continent at a rate of 4 cm per year (Goldfinger et al., 1996). A growing body of geologic evidence suggests that prehistoric subduction zone earthquakes have occurred (Atwater, 1992; Carver, 1992; Peterson et al., 1993; Geomatrix Consultants, 1995). This evidence includes: (1) buried tidal marshes recording episodic, sudden subsidence along the coast of northern California, Oregon, and Washington, (2) burial of subsided tidal marshes by tsunami wave deposits, (3) paleoliquefaction features, and (4) geodetic uplift patterns on the Oregon coast. Radiocarbon dates on buried tidal marshes indicate a recurrence interval for major subduction zone earthquakes of 250 to 650 years with the last event occurring 300 years ago (Atwater, 1992; Carver, 1992; Peterson et al., 1993; Geomatrix Consultants, 1995). The inferred seismogenic portion of the plate interface lies approximately along the Oregon Coast at depths of between 20 and 40 kilometers below the surface.

5.0 FIELD EXPLORATION AND SUBSURFACE CONDITIONS

Our subsurface explorations for this report were conducted on March 20, 2019 and May 1, 2025. A total of four exploratory test pits (TP-1 through TP-4) were excavated at the site using a track-mounted excavator provided by the client to a maximum depth of approximately 13 feet bgs. Explorations were conducted under the full-time observation of a GeoPacific geologist or engineering staff member. During the explorations, pertinent information including soil sample depths, stratigraphy, soil engineering characteristics, and groundwater occurrence were recorded. Soils were classified in accordance with the Unified Soil Classification System (USCS). Soil samples obtained from the explorations were placed in relatively air-tight plastic bags. The test pits were loosely backfilled with onsite soils. Infiltration testing was conducted within all four test pits at various depths to determine hydraulic conductivity values for use in design of potential stormwater infiltration systems. The approximate locations of the explorations are indicated on Figures 2 and 3. It should be noted that exploration locations were located in the field by pacing or taping distances from apparent property corners and other site features shown on the plans provided. As such, the locations of the explorations should be considered approximate. Summary exploration logs are attached. The stratigraphic contacts shown on the individual test pit logs represent the approximate boundaries between soil types. The actual transitions may be more gradual. The soil and groundwater conditions depicted are only for the specific dates and locations reported, and therefore, are not necessarily representative of other locations and times. Soil and groundwater conditions encountered in the explorations are summarized below.

5.1 Soil Descriptions

Topsoil: At the locations of our test pits, the ground surface was generally vegetated by grass and weeds. The topsoil horizon was primarily observed to consist of dark brown, very moist, organic SILT (OL-ML), with roots extending to approximately 8 to 12 inches bgs.

SILT (ML): Underlying the topsoil within our explorations, soils were observed to consist primarily of brown, soft, very moist, low plasticity, SILT (ML), containing trace gravel. The soil type was observed to extend to an approximate depth of 3 to 3.5 feet bgs within our explorations. Soil strength was observed to slightly increase near the base of the layer.

Silty GRAVEL (GM): Underlying the soft SILT soil type within our explorations, soils were observed to transition to a brown, medium dense, very moist, non-plastic to low-plasticity, Silty GRAVEL (GM), containing subrounded gravel to cobble-sized aggregate. The soil type was observed to extend to an approximate depth of 6 feet bgs within our explorations.

Poorly Graded Sand and GRAVEL (GP): Underlying the Silty GRAVEL soil type within our explorations, soils were observed to transition to a gray, medium dense, very moist, non-plastic Poorly Graded Sand and GRAVEL (GP), containing subrounded gravel to cobble-sized aggregate. The soil type was observed to extend to the maximum depth of exploration within our test pits. Review of available well logs from the vicinity of the site indicate that the gravel deposits may extend to depths greater than 30 feet bgs.

5.2 Shrink-Swell Potential

Fine-grained SILT displaying low-plasticity characteristics was encountered in the upper three feet of the ground surface within our subsurface explorations. Below the noted depth soils were non-plastic. The shrink-swell potential of near surface soils are considered to be low and is not anticipated to require special design measures where structures are proposed.

5.3 Groundwater and Soil Moisture

On March 20, 2019, the observed soil moisture conditions were generally very moist becoming wet near a depth of 12 feet bgs. Light groundwater seepage was observed within our subsurface explorations at an approximate depth of 12 to 13 feet bgs. Based upon review of available well logs obtained from the State of Oregon Water Resources Department Well Log Query Report, static groundwater is commonly encountered at depths of 10 to 20 feet bgs in the vicinity of the subject site. Review of our internal record of subsurface explorations, static groundwater was encountered within excavator test pits conducted at a site located approximately 1,000 feet to the north at a depth of approximately 13 feet bgs. Perched groundwater may be encountered in localized areas. Seeps and springs may exist in areas not explored and may become evident during site grading.

5.4 Infiltration Testing

Due to the presence of cobble-sized aggregate encountered within the test pits, we utilized the open-pit method within test pit TP-1, in accordance with the methodology of the 2016 City of Portland Stormwater Management Manual. We also referenced the 2015 City of Scappoose Public Works

and Design Standards. The approximate locations of the subsurface explorations are indicated on Figures 2 and 3. Infiltration testing was conducted at areas which may be proposed for installation of stormwater infiltration systems. The test locations were pre-saturated prior to testing. During testing the water level was measured to the nearest 0.01 foot (1/8 inch) from a fixed point, and the change in water level was recorded at regular intervals until three successive measurements showing a consistent infiltration rate were achieved.

Table 1 summarizes the results of the infiltration testing. Infiltration rates have been reported without applying a factor of safety. Soils at the test locations were observed and sampled in order to characterize the subsurface profile. Tested native soils classified as Poorly Graded Sand and GRAVEL (GP). Light groundwater seepage was encountered at the bottom of within our explorations which extended to a maximum depth approximately 12 feet bgs. Based upon review of available well logs obtained from the State of Oregon Water Resources Department Well Log Query Report, static groundwater is commonly encountered at depths of 10 to 20 feet bgs in the vicinity of the subject site. Review of our internal record of subsurface explorations, static groundwater was encountered within excavator test pits conducted at a site located approximately 1,000 feet to the north at a depth of approximately 13 feet bgs. Infiltration testing data tables are presented in the appendix of this report.

Table 1: Summary of Infiltration Test Results

Test Location	Test Designation	Depth (feet)	Soil Type	Infiltration Rate (inches/hr)	Hydraulic Head Range (inches)	Depth to Groundwater (Feet)
TP-1	IT-1	7.5	GP	80	0-12	Est 12-13
TP-2	IT-2	8	GP	35	0-12	Est 12-13
TP-3	IT-3	12	GP	80	0-12	Est 12-13
TP-4	IT-4	4	GM	4.3	9-12	Est 12-13

Below a depth of approximately 8 feet, moderate to rapid infiltration was observed at the locations and depths tested. Based upon our observations of the subsurface soil profile and results of infiltration measurements, it is our opinion that stormwater infiltration systems are geotechnically feasible at a depth of 8 feet bgs across the site. However, due to the presence of groundwater at depths of 12 to 13 feet, care should be taken to maintain adequate separation from the groundwater table. Additionally, moderate to low infiltration was observed within the Silty GRAVEL (GM) layer at approximately 4 feet bgs.

Infiltration test methods and procedures attempt to simulate the as-built conditions of the planned disposal systems. Due to natural variations in soil properties, actual infiltration rates may vary from the measured and/or recommended design rates. All stormwater disposal systems should be constructed to include an emergency overflow, such that potential overflow is discharged in a controlled manner away from structures, and all systems should include an adequate factor of safety determined in accordance with the City of Scappoose Public Works and Design Standards. Infiltration rates presented in this report should not be applied to inappropriate or complex hydrological models such as a closed basin without extensive further studies. Evaluating environmental implications of stormwater disposal at this site are beyond the scope of this study.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Our site investigation indicates that the proposed construction appears to be geotechnically feasible, provided that the recommendations of this report are incorporated into the design and construction phases of the project. The primary geotechnical concern associated with development at this site is the presence of soft soil conditions in the upper three feet of the ground surface. Soft soil conditions will require remediation where structures and pavement sections are proposed.

6.1 Site Preparation Recommendations

Areas of proposed construction and areas to receive fill should be cleared of any organic and inorganic debris, and loose stockpiled soils. Inorganic debris and organic materials from clearing should be removed from the site. Organic-rich soils and root zones should then be stripped from construction areas of the site or where engineered fill is to be placed. Depth of stripping of existing organic topsoil is estimated to be approximately 6 to 8 inches across the majority of the site, however depth of organic soil layers may increase in areas where trees and vegetation are present.

As previously noted, the upper 3 feet of the ground surface was observed to be soft SILT. We anticipate that improvements to the subgrade soils may be accomplished during the dry summer months by aerating, scarifying, and re-compacting the upper 3 feet. Development conducted during wet winter months will likely require cement treatment, or over-excavation and replacement with crushed aggregate in areas where structures and pavement sections are proposed.

The final depth of soil removal should be determined by the geotechnical engineer or designated representative during site inspection while stripping/excavation is being performed. Stripped topsoil should be removed from areas proposed for placement of engineered fill. Any remaining topsoil should be stockpiled only in designated areas and stripping operations should be observed and documented by the geotechnical engineer or his representative.

If encountered, undocumented fills and any subsurface structures (dry wells, basements, driveway and landscaping fill, old utility lines, septic leach fields, etc.) should be completely removed and the excavations backfilled with engineered fill. Understanding of the extent and types of undocumented fill is based on the observed conditions within our subsurface explorations. Experience has shown that soil conditions can change greatly over short distances. It is possible fill exists in areas and extents other than those identified in our subsurface explorations.

Site earthwork may be impacted by wet weather conditions. Stabilization of subgrade soils may require aeration and re-compaction. If subgrade soils are found to be difficult to stabilize, over-excavation, placement of granular soils, or cement treatment of subgrade soils may be feasible options. GeoPacific should be onsite to observe preparation of subgrade soil conditions prior to placement of engineered fill.

6.2 Engineered Fill

Based upon our review of the preliminary grading plan we anticipate that engineered cuts and fills may be conducted on the order of 10 feet or less. Where incorporated into the project, all grading for the proposed construction should be performed as engineered grading in accordance with the applicable building code at the time of construction with the exceptions and additions noted herein.

Site grading should be conducted in accordance with the requirements outlined in the 2018 International Building Code (IBC), and 2019 Oregon Structural Specialty Code (OSSC), Chapter 18 and Appendix J. Areas proposed for fill placement should be prepared as described in Section 6.1, *Site Preparation Recommendations*. Surface soils should be scarified and recompacted prior to placement of structural fill. Site preparation, soil stripping, and grading activities should be observed and documented by a geotechnical engineer or his representative. Proper test frequency and earthwork documentation usually requires daily observation and testing during stripping, rough grading, and placement of engineered fill.

Onsite native soils consisting of SILT (ML), Silty GRAVEL (GM), and Poorly Graded Sand and GRAVEL (GP) appear to be suitable for use as engineered fill. Soils containing greater than 5 percent organic content should not be used as structural fill. Imported fill material must be approved by the geotechnical engineer prior to being imported to the site. Oversize material greater than 6 inches in size should not be used within 3 feet of foundation footings, and material greater than 12 inches in diameter should not be used in engineered fill.

Engineered fill should be compacted in horizontal lifts not exceeding 12 inches using standard compaction equipment. We recommend that engineered fill be compacted to at least 90 percent of the maximum dry density determined by ASTM D1557 (Modified Proctor) or equivalent. Soils should be moisture conditioned to within two percent of optimum moisture. Field density testing should conform to ASTM D2922 and D3017, or D1556. All engineered fill should be observed and tested by the project geotechnical engineer or his representative. Typically, one density test is performed for at least every 2 vertical feet of fill placed or every 500 yd^3, whichever requires more testing. Because testing is performed on an on-call basis, we recommend that the earthwork contractor be held contractually responsible for test scheduling and frequency.

Site earthwork may be impacted by shallow groundwater, soil moisture and wet weather conditions. Earthwork in wet weather would likely require extensive use of additional crushed aggregate, cement or lime treatment, or other special measures, at considerable additional cost compared to earthwork performed under dry-weather conditions.

6.3 Excavating Conditions and Utility Trench Backfill

We anticipate that onsite soils can generally be excavated using conventional heavy equipment. Bedrock was not encountered within our subsurface explorations which extended to a maximum depth of 13 feet bgs, however we encountered cobble-sized rock. Maintenance of safe working conditions, including temporary excavation stability, is the responsibility of the contractor. Actual slope inclinations at the time of construction should be determined based on safety requirements and actual soil and groundwater conditions. All temporary cuts in excess of 4 feet in height should be sloped in accordance with U.S. Occupational Safety and Health Administration (OSHA) regulations (29 CFR Part 1926) or be shored. The existing native soils classify as Type C Soil and temporary excavation side slope inclinations as steep as 1.5H:1V may be assumed for planning purposes. These cut slope inclinations are applicable to excavations above the water table only.

Shallow, perched groundwater may be encountered at the site and should be anticipated in excavations and utility trenches. Vibrations created by traffic and construction equipment may cause some caving and raveling of excavation walls. In such an event, lateral support for the excavation

walls should be provided by the contractor to prevent loss of ground support and possible distress to existing or previously constructed structural improvements.

Underground utility pipes should be installed in accordance with the procedures specified in ASTM D2321 and City of Scappoose standards. We recommend that structural trench backfill be compacted to at least 95 percent of the maximum dry density obtained by the Modified Proctor (ASTM D1557) or equivalent. Initial backfill lift thicknesses for a ¾"-0 crushed aggregate base may need to be as great as 4 feet to reduce the risk of flattening underlying flexible pipe. Subsequent lift thickness should not exceed 1 foot. If imported granular fill material is used, then the lifts for large vibrating plate-compaction equipment (e.g. hoe compactor attachments) may be up to 2 feet, provided that proper compaction is being achieved and each lift is tested. Use of large vibrating compaction equipment should be carefully monitored near existing structures and improvements due to the potential for vibration-induced damage.

Adequate density testing should be performed during construction to verify that the recommended relative compaction is achieved. Typically, at least one density test is taken for every 4 vertical feet of backfill on each 100-lineal-foot section of trench.

6.4 Erosion Control Considerations

During our field exploration program, we did not observe soil and topographic conditions which are considered highly susceptible to erosion. In our opinion, the primary concern regarding erosion potential will occur during construction in areas that have been stripped of vegetation. Erosion at the site during construction can be minimized by implementing the project erosion control plan, which should include judicious use of straw waddles, fiber rolls, and silt fences. If used, these erosion control devices should remain in place throughout site preparation and construction.

Erosion and sedimentation of exposed soils can also be minimized by quickly re-vegetating exposed areas of soil, and by staging construction such that large areas of the project site are not denuded and exposed at the same time. Areas of exposed soil requiring immediate and/or temporary protection against exposure should be covered with either mulch or erosion control netting/blankets. Areas of exposed soil requiring permanent stabilization should be seeded with an approved grass seed mixture, or hydroseeded with an approved seed-mulch-fertilizer mixture.

6.5 Wet Weather Earthwork

Soils underlying the site are likely to be moisture sensitive and will be difficult to handle or traverse with construction equipment during periods of wet weather. Earthwork is typically most economical when performed under dry weather conditions. Earthwork performed during the wet-weather season will require expensive measures such as cement treatment or imported granular material to compact areas where fill may be proposed to the recommended engineering specifications. If earthwork is to be performed or fill is to be placed in wet weather or under wet conditions when soil moisture content is difficult to control, the following recommendations should be incorporated into the contract specifications.

- Earthwork should be performed in small areas to minimize exposure to wet weather. Excavation or the removal of unsuitable soils should be followed promptly by the placement and compaction of clean engineered fill. The size and type of construction equipment used

may have to be limited to prevent soil disturbance. Under some circumstances, it may be necessary to excavate soils with a backhoe to minimize subgrade disturbance caused by equipment traffic;

- The ground surface within the construction area should be graded to promote run-off of surface water and to prevent the ponding of water;
- Material used as engineered fill should consist of clean, granular soil containing less than 5 percent passing the No. 200 sieve. The fines should be non-plastic. Alternatively, cement treatment of on-site soils may be performed to facilitate wet weather placement;
- The ground surface within the construction area should be sealed by a smooth drum vibratory roller, or equivalent, and under no circumstances should be left uncompacted and exposed to moisture. Soils which become too wet for compaction should be removed and replaced with clean granular materials;
- Excavation and placement of fill should be observed by the geotechnical engineer to verify that all unsuitable materials are removed and suitable compaction and site drainage is achieved; and
- Geotextile silt fences, straw waddles, and fiber rolls should be strategically located to control erosion.

If cement or lime treatment is used to facilitate wet weather construction, GeoPacific should be contacted to provide additional recommendations and field monitoring.

6.6 Spread Foundations

As indicated on Figure 3, GeoPacific understands that the proposed development at the site will consist of construction of twelve, one to two-story townhomes. We anticipate that the homes will be constructed with typical spread foundations and wood framing, with maximum structural loading on column footings and continuous strip footings on the order of 10 to 35 kips, and 2 to 6 kips respectively. A grading plan has not been reviewed at this time, however we anticipate cuts and fills on the order of three feet or less.

As noted above, and as indicated on the attached test pit logs, soft SILT was encountered across the site extending to depths up to 3 feet below the existing ground surface. Soft soil conditions will require remediation where structures and pavement sections are proposed. Areas proposed for foundations should either be scarified, aerated, and recompacted; or foundations should extend to depths necessary to reach soils which will provide adequate bearing support for the proposed loads. We anticipate that improvements to the subgrade soils may be accomplished during the dry summer months by aerating, scarifying, and re-compacting the upper 3 feet. Development conducted during wet winter months will likely require cement treatment, or over-excavation and replacement with crushed aggregate in areas where structures and pavement sections are proposed.

Foundation design, construction, and setback requirements should conform to the applicable building code at the time of construction. For maximization of bearing strength and protection against frost heave, spread footings should be embedded at a minimum depth of 12 inches below exterior grade. Foundations should be designed by a licensed structural engineer.

The anticipated allowable soil bearing pressure is 1,500 lbs/ft^2 for footings bearing on competent, native soil and/or engineered fill, adequately prepared as described above. If over-excavation is needed, it should be conducted under the direction and supervision of the geotechnical engineer or designated representative. The recommended maximum allowable bearing pressure may be increased by 1/3 for short-term transient conditions such as wind and seismic loading. For heavier loads, the geotechnical engineer should be consulted. The coefficient of friction between on-site soil and poured-in-place concrete may be taken as 0.42, which includes no factor of safety. The maximum anticipated total and differential footing movements (generally from soil expansion and/or settlement) are 1 inch and ¾ inch over a span of 20 feet, respectively. We anticipate that the majority of the estimated settlement will occur during construction, as loads are applied. Excavations near structural footings should not extend within a 1H:1V plane projected downward from the bottom edge of footings.

Footing excavations should penetrate through topsoil and any disturbed soil to competent subgrade that is suitable for bearing support. All footing excavations should be trimmed neat, and all loose or softened soil should be removed from the excavation bottom prior to placing reinforcing steel bars. Due to the moisture sensitivity of on-site native soils, foundations constructed during the wet weather season may require over-excavation of footings and backfill with compacted, crushed aggregate.

Our recommendations are for residential construction incorporating raised wood floors and conventional spread footing foundations. After site development, a Final Soil Engineer's Report should either confirm or modify the above recommendations.

6.7 Concrete Slabs-on-Grade

Preparation of areas beneath concrete slab-on-grade floors should be performed as described in Section 6.1, *Site Preparation Recommendations* and Section 6.6, *Spread Foundations*. Care should be taken during excavation for foundations and floor slabs, to avoid disturbing subgrade soils. If subgrade soils have been adversely impacted by wet weather or otherwise disturbed, the surficial soils should be scarified to a minimum depth of 8 inches, moisture conditioned to within about 3 percent of optimum moisture content and compacted to engineered fill specifications. Alternatively, disturbed soils may be removed and the removal zone backfilled with additional crushed rock.

For evaluation of the concrete slab-on-grade floors using the beam on elastic foundation method, a modulus of subgrade reaction of 150 kcf (87 pci) should be assumed for the medium stiff/medium dense, fine to coarse-grained soils anticipated to be present at foundation subgrade elevation following adequate site preparation as described above. This value assumes the concrete slab system is designed and constructed as recommended herein, with a minimum thickness of 8 inches of 1½"-0 crushed aggregate beneath the slab. The total thickness of crushed aggregate will be dependent on the subgrade conditions at the time of construction and should be verified visually by proof-rolling. Under-slab aggregate should be compacted to at least 95 percent of its maximum dry density as determined by ASTM D1557 (Modified Proctor) or equivalent.

In areas where moisture will be detrimental to floor coverings or equipment inside the proposed structure, appropriate vapor barrier and damp-proofing measures should be implemented. A commonly applied vapor barrier system consists of a 10-mil polyethylene vapor barrier placed directly over the capillary break material. Other damp/vapor barrier systems may also be feasible.

Appropriate design professionals should be consulted regarding vapor barrier and damp proofing systems, ventilation, building material selection and mold prevention issues, which are outside GeoPacific's area of expertise.

6.8 Footing and Roof Drains

Construction should include typical measures for controlling subsurface water beneath the structures, including positive crawlspace drainage to an adequate low-point drain exiting the foundation, visqueen covering the exposed ground in the crawlspace, and crawlspace ventilation (foundation vents). The client should be informed and educated that some slow flowing water in the crawlspaces is considered normal and not necessarily detrimental to the structures given these other design elements incorporated into construction. Appropriate design professionals should be consulted regarding crawlspace ventilation, building material selection and mold prevention issues, which are outside GeoPacific's area of expertise.

Down spouts and roof drains should collect roof water in a system separate from the footing drains to reduce the potential for clogging. Roof drain water should be directed to an appropriate discharge point and storm system well away from structural foundations. Grades should be sloped downward and away from buildings to reduce the potential for ponded water near structures.

Perimeter footing drains may be eliminated at the discretion of the geotechnical engineer based on soil conditions encountered at the site and experience with standard local construction practices. Where it is desired to reduce the potential for moist crawl spaces, footing drains may be installed. If concrete slab-on-grade floors are used, perimeter footing drains should be installed as recommended below.

Where deemed necessary, perimeter footing drains should consist of 3 or 4-inch diameter, perforated plastic pipe embedded in a minimum of 1 ft^3 per lineal foot of clean, free-draining drain rock. The drain-pipe and surrounding drain rock should be wrapped in non-woven geotextile (Mirafi 140N, or approved equivalent) to minimize the potential for clogging and/or ground loss due to piping. A minimum 0.5 percent fall should be maintained throughout the drain and non-perforated pipe outlet. Figure 4 presents a typical perimeter footing drain detail. In our opinion, footing drains may outlet at the curb, or on the back sides of lots where sufficient fall is not available to allow drainage to meet the street.

6.9 Permanent Below-Grade Walls

Lateral earth pressures against below-grade retaining walls will depend upon the inclination of any adjacent slopes, type of backfill, degree of wall restraint, method of backfill placement, degree of backfill compaction, drainage provisions, and magnitude and location of any adjacent surcharge loads. At-rest soil pressure is exerted on a retaining wall when it is restrained against rotation. In contrast, active soil pressure will be exerted on a wall if its top is allowed to rotate or yield a distance of roughly 0.001 times its height or greater.

If the subject retaining walls will be free to rotate at the top, they should be designed for an active earth pressure equivalent to that generated by a fluid weighing 35 pcf for level backfill against the wall. For restrained wall, an at-rest equivalent fluid pressure of 52 pcf should be used in design,

again assuming level backfill against the wall. These values assume that the recommended drainage provisions are incorporated, and hydrostatic pressures are not allowed to develop against the wall.

During a seismic event, lateral earth pressures acting on below-grade structural walls will increase by an incremental amount that corresponds to the earthquake loading. Based on the Mononobe-Okabe equation and peak horizontal accelerations appropriate for the site location, seismic loading should be modeled using the active or at-rest earth pressures recommended above, plus an incremental rectangular-shaped seismic load of magnitude 6.5H, where H is the total height of the wall.

We assume relatively level ground surface below the base of the walls. As such, we recommend a passive earth pressure of 320 pcf for use in design, assuming wall footings are cast against competent native soils or engineered fill. If the ground surface slopes down and away from the base of any of the walls, a lower passive earth pressure should be used and GeoPacific should be contacted for additional recommendations.

A coefficient of friction of 0.42 may be assumed along the interface between the base of the wall footing and subgrade soils. The recommended coefficient of friction and passive earth pressure values do not include a safety factor, and an appropriate safety factor should be included in design. The upper 12 inches of soil should be neglected in passive pressure computations unless it is protected by pavement or slabs on grade.

The above recommendations for lateral earth pressures assume that the backfill behind the subsurface walls will consist of properly compacted structural fill, and no adjacent surcharge loading. If the walls will be subjected to the influence of surcharge loading within a horizontal distance equal to or less than the height of the wall, the walls should be designed for the additional horizontal pressure. For uniform surcharge pressures, a uniformly distributed lateral pressure of 0.3 times the surcharge pressure should be added. Traffic surcharges may be estimated using an additional vertical load of 250 psf (2 feet of additional fill), in accordance with local practice.

The recommended equivalent fluid densities assume a free-draining condition behind the walls so that hydrostatic pressures do not build-up. This can be accomplished by placing a 12 to 18-inch wide zone of sand and gravel containing less than 5 percent passing the No. 200 sieve against the walls. A 3-inch minimum diameter perforated, plastic drain-pipe should be installed at the base of the walls and connected to a suitable discharge point to remove water in this zone of sand and gravel. The drain-pipe should be wrapped in filter fabric (Mirafi 140N or other as approved by the geotechnical engineer) to minimize clogging.

Wall drains are recommended to prevent detrimental effects of surface water runoff on foundations – not to dewater groundwater. Drains should not be expected to eliminate all potential sources of water entering a basement or beneath a slab-on-grade. An adequate grade to a low point outlet drain in the crawlspace is required by code. Underslab drains are sometimes added beneath the slab when placed over soils of low permeability and shallow, perched groundwater.

Water collected from the wall drains should be directed into the local storm drain system or other suitable outlet. A minimum 0.5 percent fall should be maintained throughout the drain and non-perforated pipe outlet. Down spouts and roof drains should not be connected to the wall drains

in order to reduce the potential for clogging. The drains should include clean-outs to allow periodic maintenance and inspection. Grades around the proposed structure should be sloped such that surface water drains away from the building.

GeoPacific should be contacted during construction to verify subgrade strength in wall keyway excavations, to verify that backslope soils are in accordance with our assumptions, and to take density tests on the wall backfill materials.

Structures should be located a horizontal distance of at least 1.5H away from the back of the retaining wall, where H is the total height of the wall. GeoPacific should be contacted for additional foundation recommendations where structures are located closer than 1.5H to the top of any wall.

6.10 Flexible Pavement Design: Public Street Extension (SE Maple Street)

As indicated on Figure 3, we understand new public street construction will consist of extension of SE Maple Street through the site. Maple Street is designated as a *Local* street. In order to obtain strength measurements of the soil subgrade for the proposed roadway, we performed in-place field testing of native subgrade soil strength within excavator test pits. Based on the results of our testing and evaluation of the upper four feet of the ground surface, we estimate that the native subgrade underlying the proposed roadway exhibited a resilient modulus of 4,500 to 6,000 psi. For analysis and design purposes, we conservatively assume that the native subgrade soils will exhibit a resilient modulus of 4,500 psi under saturated conditions, which correlates to a CBR value of 3.

We assume that interior streets will be subjected to vehicle traffic primarily consisting of light duty passenger vehicles from the 12 proposed homes, weekly trash trucks, and occasional fire trucks weighing up to 75,000 lbs. Based upon the anticipated traffic, we calculated an anticipated 18-kip ESAL count of approximately 52,281 over 50 years per City of Scappoose, Oregon design standards. Table 2 presents our flexible pavement design input parameters and required structural number based on the anticipated traffic impacts to the roadways over a 50-year period. Table 3 presents our recommended minimum dry-weather pavement section for interior streets supporting 50 years of vehicle traffic per City of Scappoose standards. Pavement design calculations are attached to this report.

Table 2: Flexible Pavement Section Design Input Parameters for Public Street

Input Parameter	Design Value
18-kip ESAL Initial Performance Period (20 Years)	52,281
Initial Serviceability	4.2
Terminal Serviceability	2.5
Reliability Level	90 Percent
Overall Standard Deviation	0.5
Roadbed Soil Resilient Modulus (PSI)	4,500
Structural Number	**2.66**

Table 3: Recommended Minimum Dry-Weather Pavement Section: Public Street

Material Layer	Section Thickness (in.)	Structural Coefficient	Compaction Standard
Asphaltic Concrete (AC)	3.5 in.	.42	91%/ 92% of Rice Density AASHTO T-209
Crushed Aggregate Base ¾"-0 (leveling course)	2 in.	.10	95% of Modified Proctor AASHTO T-180
Crushed Aggregate Base 1½"-0	10 in.	.10	95% of Modified Proctor AASHTO T-180
Subgrade	12 in.	4,500 PSI	95% of Standard Proctor AASHTO T-99 or equivalent
Total Calculated Structural Number		**2.67**	

6.11 Flexible Pavement Design: Private Parking and Drive Areas

As indicated on Figure 3, we understand private parking areas and drive aisles will be constructed. In order to obtain strength measurements of the soil subgrade for the proposed pavement areas, we performed in-place field testing of native subgrade soil strength within excavator test pits. Based on the results of our testing and evaluation of the upper four feet of the ground surface, we estimate that the native subgrade underlying the proposed roadway exhibited a resilient modulus of 4,500 to 6,000 psi. For analysis and design purposes, we conservatively assume that the native subgrade soils will exhibit a resilient modulus of 4,500 psi under saturated conditions, which correlates to a CBR value of 3.

We assume that interior streets will be subjected to vehicle traffic primarily consisting of light duty passenger vehicles from the 12 proposed homes, weekly trash trucks, and occasional fire trucks weighing up to 75,000 lbs. Based upon the anticipated traffic, we calculated an anticipated 18-kip ESAL count of approximately 45,000 over 20 years. Table 4 presents our flexible pavement design input parameters and required structural number based on the anticipated traffic impacts to the roadways over a 20-year period. Table 5 presents our recommended minimum dry-weather pavement section for interior streets supporting 20 years of vehicle traffic. Pavement design calculations are attached to this report.

Table 4: Flexible Pavement Section Design Input Parameters for Private Parking and Drive Areas

Input Parameter	Design Value
18-kip ESAL Initial Performance Period (20 Years)	45,000
Initial Serviceability	4.2
Terminal Serviceability	2.2
Reliability Level	85 Percent
Overall Standard Deviation	0.5
Roadbed Soil Resilient Modulus (PSI)	4,500
Structural Number	**2.44**

Table 5: Recommended Minimum Dry-Weather Pavement Section: Private Parking and Drive Areas

Material Layer	Section Thickness (in.)	Structural Coefficient	Compaction Standard
Asphaltic Concrete (AC)	3 in.	.42	91%/ 92% of Rice Density AASHTO T-209
Crushed Aggregate Base ¾"-0 (leveling course)	2 in.	.10	95% of Modified Proctor AASHTO T-180
Crushed Aggregate Base 1½"-0	10 in.	.10	95% of Modified Proctor AASHTO T-180
Subgrade	12 in.	4,500 PSI	95% of Standard Proctor AASHTO T-99 or equivalent
Total Calculated Structural Number		**2.46**	

6.12 Subgrade Preparation

Roadway subgrade soils should be compacted and inspected by GeoPacific prior to the placement of crushed aggregate base for pavement. Typically, a proofroll with a fully loaded water or haul truck is conducted by travelling slowly across the grade and observing the subgrade for rutting, deflection, or movement. Any pockets of organic debris or loose fill encountered during ripping or tilling should be removed and replaced with engineered fill (see Section 6.1, *Site Preparation Recommendations*). In order to verify subgrade strength, we recommend proof-rolling directly on subgrade with a loaded dump truck during dry weather and on top of base course in wet weather. Soft areas that pump, rut, or weave should be stabilized prior to paving.

If pavement areas are to be constructed during wet weather, the subgrade and construction plan should be reviewed by the project geotechnical engineer at the time of construction so that condition specific recommendations can be provided. The moisture sensitive subgrade soils make the site a difficult wet weather construction project. General recommendations for wet weather pavement sections are provided below.

During placement of pavement section materials, density testing should be performed to verify compliance with project specifications. Generally, one subgrade, one base course, and one asphalt compaction test is performed for every 100 to 200 linear feet of paving.

6.13 Wet Weather Construction Pavement Section

This section presents our recommendations for wet weather pavement sections and construction for new pavement sections at the project. These wet weather pavement section recommendations are intended for use in situations where it is not feasible to compact the subgrade soils to project requirements, due to wet subgrade soil conditions, and/or construction during wet weather. Based on our site review, we recommend a wet weather section with a minimum subgrade deepening of 6 to 12 inches to accommodate a working subbase of additional 1½"-0 crushed rock. Geotextile fabric, Mirafi 500x or equivalent, should be placed on subgrade soils prior to placement of base rock.

In some instances, it may be preferable to use a subbase material in combination with over-excavation and increasing the thickness of the rock section. GeoPacific should be consulted for additional recommendations regarding use of additional subbase in wet weather pavement sections if it is desired to pursue this alternative. Cement treatment of the subgrade may also be considered instead of over-excavation. For planning purposes, we anticipate that treatment of the onsite soils

would involve mixing cement powder to approximately 6 percent cement content and a mixing depth on the order of 12 to 18 inches.

With implementation of the above recommendations, it is our opinion that the resulting pavement section will provide equivalent or greater structural strength than the dry weather pavement section currently planned. However, it should be noted that construction in wet weather is risky and the performance of pavement subgrades depend on a number of factors including the weather conditions, the contractor's methods, and the amount of traffic the road is subjected to. There is a potential that soft spots may develop even with implementation of the wet weather provisions recommended in this report. If soft spots in the subgrade are identified during roadway excavation, or develop prior to paving, the soft spots should be over-excavated and backfilled with additional crushed rock.

During subgrade excavation, care should be taken to avoid disturbing the subgrade soils. Removals should be performed using an excavator with a smooth-bladed bucket. Truck traffic should be limited until an adequate working surface has been established. We suggest that the crushed rock be spread using bulldozer equipment rather than dump trucks, to reduce the amount of traffic and potential disturbance of subgrade soils. Care should be taken to avoid over-compaction of the base course materials, which could create pumping, unstable subgrade soil conditions. Heavy and/or vibratory compaction efforts should be applied with caution. Following placement and compaction of the crushed rock to project specifications (95 percent of Modified Proctor), a finish proof-roll should be performed before paving.

The above recommendations are subject to field verification. GeoPacific should be on-site during construction to verify subgrade strength and to take density tests on the engineered fill, base rock and asphaltic pavement materials.

7.0 SEISMIC DESIGN

The Oregon Department of Geology and Mineral Industries (DOGAMI), Oregon HazVu: 2024 Statewide GeoHazards Viewer indicates that the site is in an area where *severe* ground shaking is anticipated during an earthquake. Structures should be designed to resist earthquake loading in accordance with the methodology described in the 2021 International Building Code (IBC) with applicable Oregon Structural Specialty Code (OSSC) revisions (current 2022). We recommend Site Class C be used for design as defined in ASCE 7-16, Chapter 20, and Table 20.3-1 and seismic design category D0 as defined in 2021 International Residential Code (IRC) Table R301.2.2.1.1. Design values determined for the site using the ASCE Hazard Tool are summarized in Table 6 and are based upon observed existing soil conditions.

Table 6: Recommended Earthquake Ground Motion Parameters (ASCE 7-16)

Parameter	Value
Location (Lat, Long), degrees	45.754, -122.869
Probabilistic Ground Motion Values, 2% Probability of Exceedance in 50 yrs:	
Peak Ground Acceleration PGA_M	0.479 g
Short Period, S_s	0.867 g
1.0 Sec Period, S_1	0.415 g
Soil Factors for Site Class C:	
F_a	1.200
* F_v	1.500
$SD_s = 2/3 \times F_a \times S_s$	0.694 g
$*SD_1 = 2/3 \times F_v \times S_1$	0.415 g
Seismic Design Category	D (D_1 per 2021 IRC)

7.1 Soil Liquefaction

The Oregon Department of Geology and Mineral Industries (DOGAMI), Oregon HazVu: 2025 Statewide GeoHazards Viewer indicates that the site is in an area considered to be at *moderate* risk for soil liquefaction during an earthquake. Soil liquefaction is a phenomenon wherein saturated soil deposits temporarily lose strength and behave as a liquid in response to ground shaking caused by strong earthquakes. Soil liquefaction is generally limited to loose sands and granular soils located below the water table, and fine-grained soils with a plasticity index less than 15.

The upper 13 feet of the site was observed to be underlain by soft SILT, underlain by medium dense, coarse-grained granular deposits located above the static water table. Based upon review of available well logs obtained from the State of Oregon Water Resources Department Well Log Query Report, static groundwater is commonly encountered at depths of 10 to 20 feet bgs in the vicinity of the subject site. Review of our internal record of subsurface explorations, static groundwater was encountered within excavator test pits conducted at a site located approximately 1,000 feet to the north at a depth of approximately 13 feet bgs. However, review of available well logs from the vicinity of the site indicate that the gravel deposits may extend to depths greater than 30 feet bgs. Based upon the results of our study, it is our opinion that the risk of soil liquefaction at the site during a seismic event at the subject site should be considered to be low.

8.0 UNCERTAINTIES AND LIMITATIONS

We have prepared this report for the owner and their consultants for use in design of this project only. This report should be provided in its entirety to prospective contractors for bidding and estimating purposes; however, the conclusions and interpretations presented in this report should not be construed as a warranty of the subsurface conditions. Experience has shown that soil and groundwater conditions can vary significantly over small distances. Inconsistent conditions can occur between explorations that may not be detected by a geotechnical study. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, GeoPacific should be notified for review of the recommendations of this report, and revision of such if necessary.

Sufficient geotechnical monitoring, testing and consultation should be provided during construction to confirm that the conditions encountered are consistent with those indicated by explorations. The checklist attached to this report outlines recommended geotechnical observations and testing for the project. Recommendations for design changes will be provided should conditions revealed during construction differ from those anticipated, and to verify that the geotechnical aspects of construction comply with the contract plans and specifications.

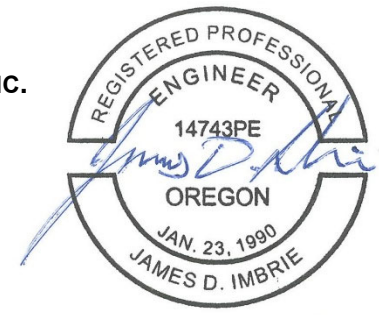
This report should not be relied upon by third parties unless a reliance letter has been issued by GeoPacific specifically to that third party, otherwise the third party should rely upon their own due diligence and geotechnical studies only. Foundations, and wood floors and slab-on-grade performance should be evaluated in accordance with ASCE Guidelines for the Evaluation and Repair of Residential Foundations (ASCE Texas Chapter, 2009) when exceeding L/100 for overall tilting and L/360 for overall deflection across the length of the home, unless superseded by the builder's warranty guidelines. Localized deflections may exceed these tolerances due to other factors such as built-in uneveness.

Within the limitations of scope, schedule and budget, GeoPacific attempted to execute these services in accordance with generally accepted professional principles and practices in the fields of geotechnical engineering and engineering geology at the time the report was prepared. No warranty, expressed or implied, is made. The scope of our work did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous or toxic substances in the soil, surface water, or groundwater at this site.

We appreciate this opportunity to be of service.

Sincerely,

GEOPACIFIC ENGINEERING, INC.



James D. Imbrie, P.E.
Principal Geotechnical Engineer

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Yelin, T.S., 1992, An earthquake swarm in the north Portland Hills (Oregon): More speculations on the seismotectonics of the Portland Basin: Geological Society of America, Programs with Abstracts, v. 24, no. 5, p. 92.

CHECKLIST OF RECOMMENDED GEOTECHNICAL TESTING AND OBSERVATION

Item No.	Procedure	Timing	By Whom	Done
1	Preconstruction meeting	Prior to beginning site work	Contractor, Developer, Civil and Geotechnical Engineers	
2	Fill removal from site or sorting and stockpiling	Prior to mass stripping	Soil Technician/ Geotechnical Engineer	
3	Stripping, aeration, and root-picking operations	During stripping	Soil Technician	
4	Compaction testing of engineered fill (90% of Modified Proctor)	During filling, tested every 2 vertical feet	Soil Technician	
5	Foundation Subgrade Compaction (95% of Modified Proctor)	During Foundation Preparation, Prior to Placement of Reinforcing Steel	Soil Technician/ Geotechnical Engineer	
6	Compaction testing of trench backfill (95% of Modified Proctor)	During backfilling, tested every 4 vertical feet for every 200 linear feet	Soil Technician	
7	Street Subgrade Inspection (95% of Standard Proctor)	Prior to placing base course	Soil Technician	
8	Base course compaction (95% of Modified Proctor)	Prior to paving, tested every 200 linear feet	Soil Technician	
9	Asphalt Compaction (92% Rice Value)	During paving, tested every 100 linear feet	Soil Technician	
10	Final Geotechnical Engineer's Report	Completion of project	Geotechnical Engineer	

SCAPPOOSE Oregon

LAND USE ACTION REFERRAL (SB 1-25) *December 29, 2025*

RETURN TO: N.J. Johnson by January 9, 2026 via email at njohnson@scappoose.gov. If you have any questions, please call N.J. Johnson at (503) 543-7184, ext. 403.

REGARDING: Brad Hendrickson has requested approval of an application for Preliminary Subdivision Plat to subdivide 1.59 acres of land into 14 lots to support townhouses. The site is an unaddressed property abutting the terminus of both SE Maple Street and SE 6th Court described as Columbia County Assessor Map #3212-DA-04400. The site is east of the SE Maple Street and SE Cypress Court intersection.

1. ✓ We have reviewed the enclosed application and have no objection to its approval as submitted.

2. _____ Please see either our comments (below) or attached letter.

3. _____ We are considering the proposal further and will have comments to you by _____.

4. _____ Our board must meet to consider this; we will return their comments to you by _____.

5. _____ Please contact our office so we may discuss this.

6. _____ We recommend denial of the application. Please see either our comments (below) or attached letter:

COMMENTS: _____

Name: Don VanDomelen Title: Building Official

Signed: [signature] Date: 12-29-25

SCAPPOOSE Oregon

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COMMENTS: _____

Required streetlighting design must be submitted to the City of Scappoose Engineering Department for approval prior to PUD estimate being provided.

Name: Brandon Stachely Title: Engineering manager

Signed: [signature] Date: 12/29/25

SCAPPOOSE Oregon

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5. _____ Please contact our office so we may discuss this.

6. _____ We recommend denial of the application. Please see either our comments (below) or attached letter:

COMMENTS: _____

Name: Dave Sukau Title: Public Works Director

Signed: _____ Date: 1/2/2026

SCAPPOOSE Oregon

January 2, 2026

To: N.J. Johnson, Assistant to City manager/City Planner

From: Dave Sukau, Public Works Director

Re: Land Use Action Referral (SB 1-25)

Dear N.J.,

I have reviewed the Land Use Action Referral packet and plans for the proposed subdivision.

The City of Scappoose Public Works has no objection to its approval, provided it meets all criteria set forth in the Scappoose Municipal Codes and SPWDS.

Sincerely,

Dave Sukau

City of Scappoose, Public Works Dept.

City of Scappoose 33568 E Columbia Avenue Scappoose Oregon 97056 503-543-7146 Fax 503-543-7182

SCAPPOOSE Oregon

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5. _____ Please contact our office so we may discuss this.

6. _____ We recommend denial of the application. Please see either our comments (below) or attached letter:

COMMENTS: _____

Name: Tim Porter Title: Superintendent

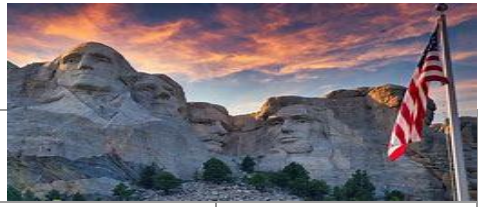
Signed: Tim Porter Date: 1/5/2026

CITY OF SCAPPOOSE

January 2026

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
City calendar with meeting details can be found on our website; https://www.scappoose.gov/calendar/month/				1 City Offices Closed ~ Happy New Year!	2	3
4	5 Council meeting 7pm	6	7	8 *No Planning Commission*	9	10
11	12	13	14	15 EDC, Noon	16	17
18	19 Offices closed MARTIN LUTHER KING JR. DAY	20 Council Work Session 6pm Council 7pm	21	22 Planning Commission 7pm	23	24
25	26	27	28	29	30	31

CITY OF SCAPPOOSE



February 2026

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	**2** Council work session 6pm Council 7pm	**3**	**4**	**5**	**6**	**7**
8	**9**	**10**	**11**	**12** **No Planning Commission**	**13**	**14**
15	**16** **City Offices Closed** 	**17** Council work session 6pm Council 7pm	**18**	**19**	**20**	**21**
22	**23**	**24**	**25**	**26** **Planning Commission**	**27**	**28**

City calendar with meeting details can be found on our website; https://www.scappoose.gov/calendar/month/