AGENDA
PLANNING COMMISSION MEETING
Wednesday, February 3, 2021
7:00 P.M.
Maggie Osgood Library
70 N. Pioneer Street

This meeting will be held electronically through Zoom. Limited seating is available at the Library. Members of the public are encouraged to provide comment or testimony through the following:

- Joining by phone, tablet, or PC. For details, click on the event at www.ci.lowell.or.us.
- In writing, by using the drop box at Lowell City Hall, 107 East Third Street, Lowell, OR 97452
- By email to: jcaudle@ci.lowell.or.us

1. **Call to Order/Roll Call**

Commissioners: Dragt ____ Kintzley ____ Wallace ____

2. **Approval of Agenda**

3. **Approval of Minutes**
   a. January 6, 2021

4. **Old Business**

a. Land Use File 2019-04 – Sunset Hills Subdivision (Map 19-01-14-21, Tax Lot 05000)
   - Public Hearing
   - Commission Deliberation
   - Commission Decision

5. **New Business**

a. Land Use File 2020-01—Tristan Ferguson Site Review (Map 19-01-14-22, Tax Lot 2301)
   - Public Hearing
   - Commission Deliberation
   - Commission Decision

6. **Other Business**

7. **Adjourn**

The meeting location is accessible to persons with disabilities. A request for an interpreter for the hearing impaired or for other accommodations for persons with disabilities should be made at least 48 hours before the meeting to the City Clerk, Joyce Donnell, at 541-937-2157.

City of Lowell, Oregon
Minutes of the Planning Commission Meeting
January 6, 2021

The meeting was called to order at 7:00 PM by Commissioner Chair Dragt.

Members Present: Lon Dragt, Mary Wallace, Suzanne Kintzley
Staff Present: CA Jeremy Caudle, Interim CA Marsha Miller, City Planner Henry Hearley LCOG

Administer Oath of Office: CA Caudle administered Oath of Office to Mary Wallace and Suzanne Kintzley.

Selection of Planning Commission Chair and Vice-Chair – Commissioner Wallace nominated Lon Dragt for Commission Chair, second by Commissioner Kintzley. PASS 3:0 Commissioner Wallace nominated Suzanne Kintzley for Commission Vice-Chair, second by Commissioner Dragt. PASS 3:0

Approval of Planning Commission Minutes: Commissioner Kintzley moved to approve minutes from March 18, 2020, second by Commissioner Wallace. PASS 3:0
Commissioner Kintzley moved to approve minutes from April 14, 2020, second by Commissioner Wallace. PASS 3:0

Old Business: None

New Business:

a. **Land Use File 2019-04 – Sunset Hills Subdivision (Map 19-01-14-21, Tax Lot 05000)**

Close Public Meeting: 7:12 PM
Open Public Hearing: 7:12 PM

Land Use File 2019-04 – Sunset Hills Subdivision (Map 19-01-14-21, Tax Lot 05000)

- **Staff Report** – Henry Hearley City Planner, LCOG, presented report, with recommendation to approve site plans with conditions of approval.
- **Applicants Presentation** – Attorney Mike Reeder, representing Bahen Investment Group, LCC Investments, addressed conditions of approval and commissioners' questions.
- **Public Testimony** – Bill George 125 Marina Vista Drive, spoke in favor. Mia Nelson, 40160 E 1st Street, provided comment and in favor.

Public Hearing Closed: 7:50 PM
Reconvene Public Meeting: 7:50 PM

- **Commission Deliberation -** Discussion followed with recommendation to have Open Record Period until January 21, 2021 to provided additional information to commission, Second Open Record Period to January 28, 2021 and Final applicant's rebuttal by February 3, 2021. Tentative plan for Commissions decision at February 3rd Planning Commission meeting.

b. **Land Use File 2020-02 Property Line Adjustment – Map 19-01-14-24, Tax Lots 02200 and 02100**

Close Public Meeting: 8:02 PM
Open Public Hearing: 8:02 PM

Land Use File 2020-02 Property Line Adjustment – Map 19-01-14-24, Tax Lots 02200 and 02100

- **Staff/Applicant Presentation** – Interim CA Marsha Miller, representing City of Lowell, presented report, with recommendation to approve property line adjustment and responding to questions from the Commission
- **Public Testimony** – None

Public Hearing Closed: 8:10 PM
Reconvene Public Meeting: 8:10 PM

- **Commission Decision – Commissioner Kintzley moved to approve Land Use File 2020-02 Property Line Adjustment, second by Commissioner Wallace. PASS 3:0**

Other Business: None

Adjourn: 8:12 PM

Approved: _____ Date:_____
Lon Dragt - Chair

Attest: _____ Date:_____
Jeremy Caudle, City Recorder

Agenda Item Sheet

City of Lowell Planning Commission

Type of item:	Subdivision

Item title/recommended action:

Motion to approve recommendation to City Council for APPROVAL of LU 2019-04 (SUNSET HILLS SUBDIVISION) in the matter of a 16 Lot Subdivision owned by Bahen Investments, LLC and located on Assessor's Map and Tax Lot and Map 19-01-14-21, Tax Lot 05000.

Justification or background:

See attached "Staff Report" dated February 1, 2021.

Attachments:

"Planning Commission Recommendation to City Council"; "Staff Report" dated February 1, 2021; Attachment R; Attachment S.

Meeting date:	02/03/2021

CITY OF Lowell

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PLANNING COMMISSION
RECOMMENDATION to
CITY COUNCIL

Notice of recommendation for **APPROVAL** of a **LU 2019 04 (SUNSET HILLS SUBDIVISION)** in the matter of a 16 Lot Subdivision owned by Bahen Investments, LLC and located on Assessor's Map and Tax Lot and Map 19-01-14-21, Tax Lot 05000.

The recommendation for approval of **LU 2019 04** is forward onto City Council for final action. The recommendation for approval is based on the findings, conclusions, and recommended conditions as contained in the staff report, dated **February 1, 2021**.

The Planning Commission Hearing was held on **January 6, 2021** at 7:00 pm via Zoom. The hearing was open to the public and an opportunity for concerned residents to submit oral or written testimony was offered.

At their **January 6, 2021** hearing, Planning Commission kept the record open to allow for additional testimony to be submitted. Planning Commission heard oral testimony in favor and in opposition/neutral of the proposal.

Additional evidence was submitted by the applicant on **January 21, 2021** in the form of a revised Utility Plan, dated **January 20, 2021 and a Resolution List, submitted on January 6, 2021**. This Utility Plan has been incorporated into the record and is contained in the Staff Report as **Attachment R and Resolution List as Attachment S**.

City Council will hold a public hearing on the same matter and take final action on **February 16, 2021**. The hearing will take place in the same manner, location and time as the Planning Commission hearing.

_____ _____

Lon Dragt, Planning Commission Chair Date
City of Lowell

Staff Report
Subdivision
Assessor's Map 19-01-14-21, Tax Lots 05000
Sunset Hills Subdivision
LU 2019-04
Staff Report Date: February 1, 2021

Referrals: Lane County Transportation Planning, Oregon Department of Transportation, Civil West Engineering, and Lowell Rural Fire Protection District.

Mailed Notice: December 16, 2020

Staff Report Date: December 30, 2020

Planning Commission
Public Hearing: January 6, 2020

City Council
Public Hearing: January 19, 2020

First Open Record Period: January 7, 2021 to January 21, 2021

Second Open Record Period: January 22, 2021 to January 29, 2021

Applicant's Final Rebuttal: Waived

Planning Commission Deliberations: February 3, 2021

City Council Public Hearing: February 16, 2021

Recent Background: Planning Commission heard the subject application and held an open public hearing on **January 6, 2021**. Following the public hearing and receiving oral testimony from one party in favor and party in opposition/neutral Planning Commission decided to leave the record open to allow for the applicant to submit a revised Utility Plan or any other additional evidence, or rebuttal, submitted by a party.

The applicant's civil engineering team submitted their revised Utility Plan into the record on **January 21, 2021** via email. Staff have labeled the revised Utility Plan as **Attachment R** in this staff report. The applicant's engineering teams has indicated, the revised Utility Plan is based on the conversations that occurred at the public hearing, subsequent memos from Ms. Mia Nelson, the City Engineer, and the applicant's design team. The applicant believes this revised Utility Plan contains all pertinent information for the Planning Commission to issue a recommendation of approval onto City Council for final action.

Additionally, the applicant submitted a "Resolution List" on **January 6, 2021**. The Resolution List is a memo from the applicant's representative and Ms. Mia Nelson. The Resolution List is intended for both parties to come to an agreement on several issues regarding the proposed subdivision. The Resolution List is incorporated into this staff report and the record as **Attachment S**. The requirements and agreements between the applicant and Ms. Mia Nelson are contained in Condition of Approval #31.

Due to the length of this staff report and the amount of work that has already occurred, staff will use "track changes" to show the public and Planning Commission the changes that have occurred. The changes made to this staff report are not substantial. Staff direct the public and Planning Commission to focus on the tracked changes, as any remaining content and findings remain the same as was first seen by Planning Commission on **January 6, 2021**.

BASIC DATA

Application Request: Subdivision to create 16 lots for homes

Agent: Engineer and Planning: Boeger & Associates
1011 S. Bertelsen Rd.
Eugene, OR 97402
Surveyor: Tolbert and Associates
PO BOX 22603
Eugene, OR 97405

Property Owner: Bahen Investment Group, LCC Investments
195 Melton Road
Creswell, OR 97426

Location: East of Fourth Street. No Addresses Assigned

Assessors map: 19–01–14-21

Tax lot: 05000

Area: 3.26 acres

Plan Designation: Low Density Residential

Zoning: R–1 Single–Family Residential District

1. **Proposal.** The Planning Commission is being asked to review and render a recommendation onto City Council for final action, on a 16-lot subdivision for property located at Assessor's Map 19-01-14-021, Tax Lot 05000. The subject property is owned by Bahen Investment Group, LCC Investments. The surveyor for the project is Lloyd Tolbert of Tolbert Associates, LCC and the engineer is Dennis Boeger of Boeger Associates, LCC. The subject property is zoned R-1 Single Family Residential. The subject property currently is vacant but

cleared of most trees and brush. An adjacent residential development is immediately west of the subject property. The applicant is proposing to create 16-lots as shown on the tentative map and are intended to have single-family homes built on them. The applicant has provided The City presently has an extension to the 120-day rule to allow the application to be taken through City Council. The extensions granted to the City are included in this staff report as **Attachment G**.

2. **Issues / Items of Note.** Staff have identified several issues for Planning Commission and City Council to be aware of at the outset of this staff report and accompanying staff presentation. All issues and associated applicable approval criteria are further addressed in the body of the staff report.

    - Lots 23, 25 and 26 contain slopes of 15 percent or greater. A Geotech report has been completed. Hillside Development Standards will apply on those lots.

    - Drainage will largely be handled by existing infrastructure. Development may require some minor additions of culverts, but those would occur on site. Extensive conservations between applicant's engineer and City Engineer have occurred this past springtime to get drainage in an acceptable place for the City and the subdivision. A final drainage plan and details will be required following tentative approval. The final drainage plan shall be substantially the same as the drainage plan as approved with tentative approval.

    - Turnaround for fire access will be required at dead-ends. Gravel turnarounds are acceptable, provided they can support at least 60,000 pounds. The proposed turnarounds are seen on the tentative subdivision map.

    - Applicant has hired a Wetland Consultant and completed a Delineation Report. Wetland Delineation Report currently being reviewed by DSL.

    - The applicant's civil engineer submitted a letter dated November 3, 2020 addressing some public comments received and the feasibility of constructing a full ROW between proposed lots 25 and 26. The letter is included in this staff report at **Attachment P**. The letter states a street constructed in area that contains slopes between 15% and 20% is not practical and potentially hazardous. The requirement for a future public street between proposed lots 25 and 26 was previously called for as a condition of approval when the adjacent subdivision was developed in 2006.

    - The applicant submitted a revised Tentative Map to the City on December 7, 2020 (**Attachment B**). This revised map shows the applicant satisfying the previous condition of approval #2 as contained in the findings from the adjacent subdivision. This condition requires the future subdivider of the subject property to preserve future right of way access to lot 200. As seen on the new tentative map, the applicant has preserved 50-feet of ROW on the southern proportion of the property, abutting proposed Lot 26 and Tax Lot 403, for future public right of way. Public comment

submitted by Ms. Mia Nelson on December 28, 2020 argues this section of preserved ROW must be improved to city standards by the applicant.

- The issue of whether or not to require improvements to this preserved ROW as contemplated in the previous condition of approval #2, is something City decision makers will have to decide. Staff has previously looked at the wording of the condition and it did not state the preserved ROW had to be improved and thus were not likely to recommend it be required of the applicant. *However*, after further research into the matter, staff believe improving the preserved ROW is the intent of the subdivision ordinances, as dictated by the LDC. The City could still find the applicant is not required to improve this section based on its own reasoning, which staff would support, but staff recommend the City require the improvements based on the standards, approval criteria and code language as contained in the LDC.

- The City Engineer has reviewed the revised tentative map, dated December 3, 2020. The City Engineer does not have any specific comments or concerns regarding the tentative map that need to be addressed by the applicant prior to tentative approval. However, the City Engineer's comments from July 2019 and December 29, 2020 remain and will be addressed between the City Engineer and the applicant's engineer, after tentative approval. The City Engineer will require detailed construction plans to be submitted and reviewed before any construction occurs.

- **Phase Three power conduits**. Ms. Nelson submitted comment relating to the need for the applicant to install phase three power conduits to build an eventual pump station which would assist in providing water service to higher elevations in Lowell. Ms. Nelson contends the City cannot make an affirmative finding for LDC 9.228(f), which states "*the proposed public utilities can be extended to accommodate future growth beyond the proposed land division,"* without requiring this of the applicant. Staff tend to agree with Ms. Nelson on this matter. Now, since the phase three power conduits would be supply city water service, there is an opportunity for the City to reimburse or waive a portion of the SDC fees for providing this infrastructure. Without knowing the details of such an agreement or an actual cost, staff lean towards obtaining a commitment from the applicant in the form of a condition of approval, with the costs and details of being addressed between the City and the applicant in the development agreement. The applicant is not opposed to providing phase three power conduits which can be located in easements, but the applicant strongly feels the City needs to be providing some cost offsets for these improvements and staff agrees. The requirement for three-phase power and the outline for an agreement between the City and the applicant to provide these improvements is contained in Condition #30.

3. **Public comments.** Ms. Mia Nelson of Lookout Point LLC has submitted official comments on the proposal, dated December 28, 2020 (included as **Attachment M**). Previously, before the public hearings were cancelled in September 2020, Ms. Nelson has also submitted comments for the record, which are included in this staff report as **Attachment M**. For the comments submitted on December 28, 2020, one of Ms. Nelson's main arguments is the lack

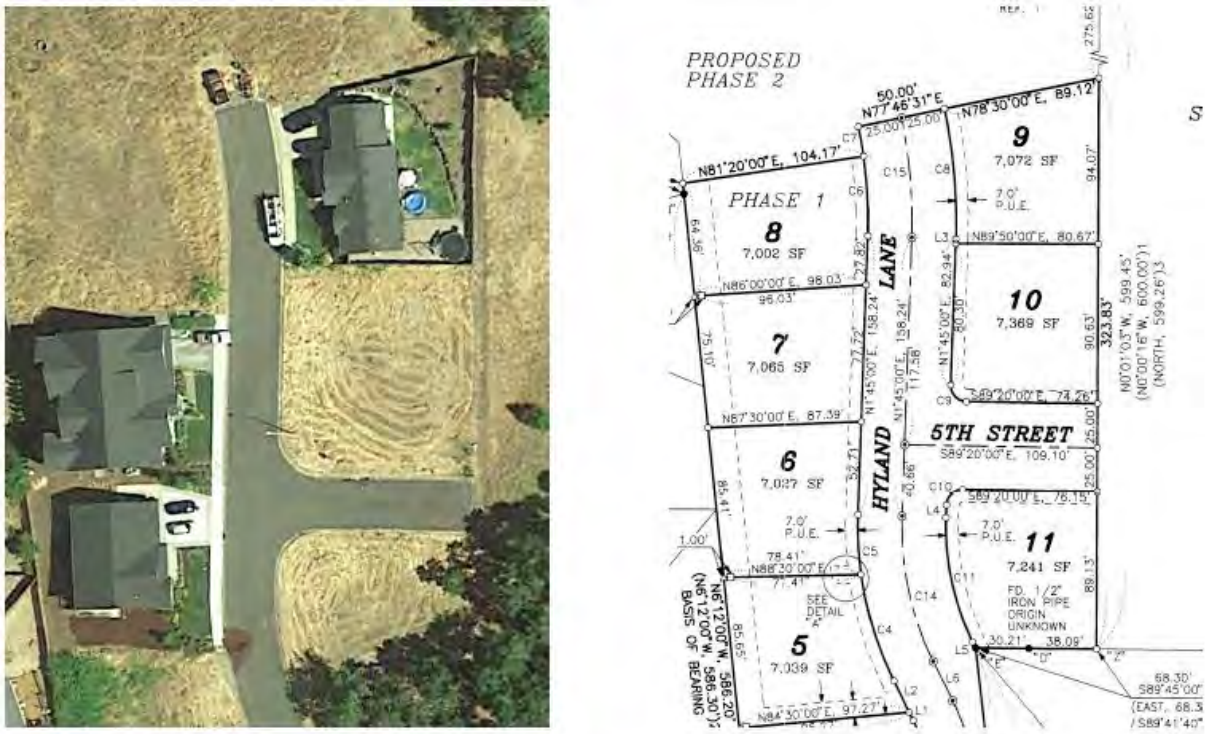
of public street improvements proposed to the 50-foot of preserved ROW as required in the previous condition of approval #2 for Sunset View Ranch Subdivision. Ms. Nelson contends the applicant should at a minimum be required to improve the street to a width of 21-feet with curb and gutter, plus sidewalks on one side, provide storm sewer sized for uphill property, a sanitary sewer mainline extension, extension of electric, TV and television conduits and planning and adequate room provided for a future high-level water main to come from the south. Ms. Nelson explains, the lack of the improved extension of 4th street is in violation of Sections 9.521(c) (water), 9.517(h) (streets), 9.522(c) (sanitary sewer), and several sections of the Standards for Public Improvements relating to storm and sanitary sewer and streets and water of the LDC. Further, Ms. Nelson explains, if the City does not require the applicant to improve the 50-foot preserved ROW, as she describes in her comment, it will have two major negative effects:

1) It will burden the future developer of the property to the east with costs that are properly the applicant's to bear. Not only are there fairness concerns, but the extra costs could cause the future hillside project to become unprofitable. This is not in the City's long-term best interests; and

2) If and when these utilities are finally extended, the cost will be dramatically higher than it would have been to do it right the first time, and substantial pavement damage will occur since the street will have to be torn up. Again, this is not in the City's best interest.

Additionally, as Ms. Nelson lays out in her comment, if the City does not require the improvements on the 50-foot section of preserved ROW, it will be going against established precedent for this type of situation. In 2009, the city approved a nearby subdivision called Stoneridge Estates, which had a similar situation: a short street stub leading to undeveloped property to the east. Initially, the developer had not proposed to develop this small street stub, as the developer thought it was unnecessary to the subdivision. The city compelled the developer to fully improve the street, along with utilities stubbed all the way to the property line (see **Exhibit A** below, as submitted by Ms. Nelson). If an adjacent property is not yet ready to develop, that is not a valid reason to excuse the improvements.

Exhibit A.



Furthermore, Ms. Nelson explains that proposed lot 26 is above the minimum lot size required for the placement of a duplex housing development and this must be acknowledged as the creation and improvement of the adjacent ROW confers extra development rights and value to the applicant's property. Per ORS 93.277, this duplex entitlement cannot be restricted by the Sunset Hills development covenants; the city should expect a duplex in this location. The required street improvements will be clearly beneficial to lot 26 and are wholly appropriate given the level of use that should be expected. One of the duplex unit may likely take access from the improved 4th Street ROW.

And lastly, infrastructure for future high-level water system must be put in place by the applicant. Ms. Nelson explains that LDC 9.228(f) requires a finding that the "*proposed public utilities can be extended to accommodate future growth beyond the proposed land division*." In Ms. Nelson's September 14, 2020 submittal she explains the city has an adopted Water System Master Plan that anticipates a future booster pump station sending water up the hill to an upper-level reservoir, and that the applicant must provide three phase power connections for this future pump station, to comply with LDC 9.228(f). The city required this with the adjacent development for Sunset View Ranch. Without access to three-phase power, the future pump station cannot be built. As discussed, later in this staff report, the applicant is not opposed to adding these three phase power conduits and staff agrees with Ms. Nelson that these are important conduits to add.

- Ms. Mia Nelson also submitted comments on December 30, 2020 but staff do not have adequate time to review and incorporate those comments into this staff report. However, Ms. Nelson's comments, including the December 30, 2020 submittal are included in this staff report as **Attachment M**.

2. **Approval Criteria.** Section 9.204 Application Site Plan. Section 9.223 General Information. Section 9.220 Subdivision or Partition Tentative Plan. Section 9.224 Existing Conditions Information. Section 9.518 and Section 9.228 Decision Criteria. Section 9.230 Subdivision or Partition Plat. Section 9.516 Access. Section 9.517 Streets. Section 9.518 Sidewalks. Section 9.519 Bikeways. Section 9.520 Storm Drainage. Section 9.521 Water. Section 9.522 Sanitary Sewer. Section 9.523 Utilities. Section 9.630 Hillside Development. Section 9.524 Easements. Section 9.805 Improvements Agreement. Section 9.806 Security. Section 9.807 Noncompliance Provisions. Section 9.231 Submission Requirements. Comprehensive Plan Policies: Housing Need Policy (c) 4 & 5; Development Constraints (c) (1) & (2). Notice of decision will be sent to the applicant, and parties of record.

3. **Staff review of applicable criteria for subdivision.**

LDC 9.204 Application Site Plan

Recommended FINDING for approval: The applicant has submitted the necessary information as required for an application site plan, and application narrative in order for staff to make findings on the proposal. Criterion met.

LDC 9.220. Subdivision or Partition Tentative Plan

(a) The Planning Commission shall have the authority to review and approve Land Partitions and the City Council, with recommendation from the Planning Commission, shall have the authority to review and approve all Subdivisions, under the provisions of this Code.

(b) In the event that a single land use application requires more than one decision, the highest deciding authority will make all decision requested in the application.

Discussion: The requested land use action is a subdivision. As such, per LDC, the proposal will go through a two-step land use process: a public hearing in front of Planning Commission for a recommendation and a public hearing in front of City Council for a decision and final action.

Recommended FINDING for approval: The City of Lowell has followed the required processes for approval of a subdivision. The proposal will receive a recommendation from Planning Commission which will be forwarded onto City Council for a decision and final action. Criterion met.

LDC 9.223. General Information.

(b) No Tentative Plan shall be approved which bears a name using a word which is the same as, similar to or pronounced the same as a word in the name of any other subdivision in the same county, except for the words "town," "city," "place," "court," "addition," or similar words, unless the land Platted is contiguous to and Platted by the same party that Platted the subdivision bearing that name or unless the party files and records the consent of the party that Platted the subdivision bearing that name. All Plats must continue the lot and block numbers of the Plat of the same last filed.

Recommended FINDING for approval: The proposed name of the subdivision is "Sunset Hills." The proposed subdivision is the next phase in the Sunset View Ranch. "Sunset Hills" is not the same as, similar to or pronounced the same as any other subdivision in Lane County. Staff find this criterion met.

LDC 9.224 Existing Conditions Information.

(a) The location, widths and names of both opened and unopened streets within or adjacent to the land division, together with easements, other rights-of-ways and other important locational information such as section line, corners, city boundary lines and monuments.

Recommended FINDING for approval: As seen on the tentative map (**Attachment B**), dated December 3, 2020 and Sheet 2, the utility plan, dated December 28, 2020 (**Attachment Q**) the applicant has identified the required information in order for staff to make an informed recommendation to Planning Commission. The applicant submitted a revised Utility Plan, dated January 20, 2021, this revised Utility Plan is entered into this staff report and the record as **Attachment R**). The proposal will involve the extension of 4th Street (a road width of 30-feet, with 5-foot-wide sidewalks). The applicant has identified three easements: one being a 10-foot utility/grading easement, centered on the property lines of Lots 19, 20, 17, 21 and 22. The second a 25-foot easement for access and utilities between lots 25 and 26, this access easement will serve Lots 25 and Lots 26 with driveway access and also keep access to Lot 200, located above the subdivision. The third easement is a 20-foot shared access and utility easement for Lots 16 and 17. The proposed extension of 4th Street will extend to the boundary of the subdivision where it meets tax lot 403. Phase three power conduits have the ability to be placed in easements for the eventual construction of a pump station to provide water to higher elevations. It's expected the City will offset some costs associated with this. The City and the applicant are agreeable to providing these three phase power conduits. The requirement for three phase power conduits is included in this staff report as **Condition 30**. The proposed tentative plan and associated sheets include the necessary information. Criterion met.

(b) The location of all existing sewers, septic tanks and drain fields, water lines, storm drains, culverts, ditches, and utilities, together with elevation data, on the site and on adjoining property or streets, if applicable.

Recommended FINDING for approval: The necessary information is contained on the tentative map and Sheet 2 and **Attachment R**. Sheet 2 shows public infrastructure being placed in the right-of-way. Septic tanks and drain fields are not proposed as the proposed lots will all be hooked up to city sewer services. The applicant will utilize existing city stormwater infrastructure to handle stormwater and drainage. The applicant proposes to connect to all city services. The applicant has submitted the necessary information as required in Section 9.224 for a subdivision as seen on the tentative map

LCD 9.225 Proposed Plan Information.

…

(c) The location, width, and purpose of existing and proposed easements.

Recommended FINDING for approval: The applicant has identified three easements: one being a 10-foot utility/grading easement, centered on the property lines of Lots 19, 20, 17, 21 and 22. The second a 25-foot easement for access and utilities between lots 25 and 26, this access easement will serve Lots 25 and Lots 26 with driveway access and also keep access to Lot 200, located above the subdivision. The third easement is a 20-foot shared access and utility easement for Lots 16 and 17. All easements associated with the proposal shall be included on the final plat and recorded and filed in accordance with ORS 92, Lane County, and the Lowell Development Code (LDC). The general requirement for the proper recording of all easements in accordance with ORS 92 and Lane County will be a condition of approval. Criterion met.

(d) The total acreage and the proposed land use for the land division including sites for special purposes or those allocated for public use.

Recommended FINDING for approval: The total acreage of the subject property is 3.27 acres. The proposed subdivision is the next logical extension of the existing subdivision to the immediate west of the subject property. The extension of 4th Street has already been dedicated as public right of way. The applicant will also be preserving future City ROW for the extension of 4th Street to the east to serve possible future developments on the lands to the east and north of the subject property. The City will require this preserved section of ROW to be improved. The applicant has appropriately represented this information on the tentative map and Sheet 2. Criterion met.

(e) The location and approximate location dimensions of lots or parcels and the proposed lot or parcel numbers. Where the property division results in any lots or parcels that are larger than 2 and one-half times the minimum lot size, the applicant shall provide a sketch plan showing how the parcels may be re-divided in the future to provide for at least 80% of maximum density within current minimum lot sizes, existing site constraints and requirements of this Code.

Recommended FINDING for approval: The proposed subdivision is to create 16 residential lots as seen on the tentative map. The proposed subdivision is the last and final phase of the existing subdivision immediately to the west on 4th Street; all property owned by the applicant/owner will be fully slated for residential development. 4th Street will be extended to serve the proposed 16 lots and will terminate at the boundary of the subdivision and contain turnarounds for fire truck access. A future connection to existing right of way, to the south is anticipated but is not part of this development. The extension and connection of 4th Street to the south is consistent with the Lowell Master Road Map. The applicant does not own any other lands adjacent to the proposed subdivision.

Additionally, the proposed subdivision will not result in any lots being created that are 2 and one-half times the minimum lot size. The applicant's civil engineer has submitted two new maps showing how the streets can be further extended to the north and south and how possible division of land can occur on lots 100 and 200. Per the applicant's civil engineer, a future public right of way placed in between lots 25 and 26 is not practical due to steep slopes and the level of cut slopes that would be required. As such, the applicant is proposing to preserve future right-of-way to tax lot

200, by preserving 50-feet of ROW at the southern portion of the subdivision as an extension of a future 4th Street. The City will require improvement of this small portion of 4th Street. The maps were submitted with the applicant's supplemental submittal on November 4, 2020 and are contained in this staff report as **Attachment P**.

…

(g) a general layout of all public utilities and facilities to be installed including provisions for connections and extensions beyond the proposed land division.

Recommended FINDING for approval: A general layout of all public utilities and facilities to be installed has been shown on Sheet 2, also on the applicant's revised Utility Plan, dated January 20, 2021 (**Attachment R**). The applicant proposes to connect to city services for all proposed. Included on Sheet 2 (**Attachment Q**) are proposed connections to utilities along the extended 4th Street. The extensions of future water service to lots 100 and 200 are possible given the applicant's proposal of placing water lines in the northerly and southerly extensions of Wetleau Drive. The applicant has the ability to provide conduits for three phase power within their easements. This will be required of the City, but it's expected the City will provide some cost offsets to the applicant. The three phase power conduits will allow for the eventual placement of a pump station to serve higher elevations with water service. The precise layout and design of site utilities will be drawn during the construction drawing phase of the project, after tentative approval. The applicant's engineers will be working closely with the City Engineer for review and approval of construction level plans. Criterion met.

(h) The proposed method of connection to all drainage channels located outside of the proposed land division and the proposed method of flood control (retention ponds, swales.) and contamination protection (settling basins, separators, etc.)

Recommended FINDING for approval: The proposal will largely utilize existing city stormwater infrastructure. There is an existing 18-inch culvert onsite with adequate capacity to handle flows generated by the subdivision. The storm system will include two new storm manholes and several different drains along the curb and gutter. The applicant has completed a drainage report and can be found in **Attachment C**.

(i) Identification of all proposed public dedications including streets, pedestrian or bike ways, parks, or open spaces.

Recommended FINDING for approval: As seen on the tentative map, the proposed subdivision will extend 4Th Street to the boundary of the subdivision. The extension of 4Th Street has already been dedicated but is not presently improved. The applicant will also be installing public sidewalks on both sides of 4th Street. Additionally, the applicant will be preserving and improving a future ROW extension of 4th street that can logically serve tax lot 200 if it becomes developed. Staff note, the existing structure on tax lot 200 will maintain its existing access by the placement of a 25-foot private access easement proposed to be placed between lots 25 and 26. Criterion met.

(j) Identification of any requirements for future streets and easements required for extension of public infrastructure beyond the development together with restrictions on

building within those future streets and easements as well as future setback areas required by this Code.

Recommended FINDING for approval: 4th Street will be extended and improved to City standards. Upon completion, the street will become public right of way. The future extension of 4th Street to the south is consistent with the Lowell Master Road Map. The applicant will also be preserving and improving a small section for the future ROW extension of 4th Street to the east and located south of lot 26. Criterion met.

(k) Identification and layout of all special improvements. Special improvements may include, but are not limited to, signs, lighting, benches, mailboxes, bus stops, greenways, bike or pedestrian paths.

Recommended FINDING for approval: Staff does not identify any special improvements for tentative approval. The applicant has submitted the necessary information, as seen on the tentative map and related Sheets, for staff to determine and recommend compliance with this provision. However, staff note that during the construction review process between the City Engineer and the applicant's engineer, a need for certain special improvements may be deem necessary, such as signs, lighting, and mailboxes. Improvements related to exterior lighting or signs shall conform to Exterior Lighting, Section 9.529 and Signs, Section 9.530.

LDC 9.226 Accompanying Statements. The Tentative Plan shall be accompanied by written statements from the applicant giving essential information regarding the following matters:

(a) Identify the adequacy and source of water supply including:
(1) Certification that water will be available to the lot line of each and every lot depicted on The Tentative Plan for a subdivision, or.
(2) A bond, contract or other assurance by the applicant that a public water supply system will be installed by or on behalf of the applicant to each and every lot depicted on the Tentative Plan.

Discussion: The proposed subdivision is adjacent to an existing residential development. City services are available to each of the proposed lots. A bond, contract or other assurance will be required on behalf of the developer. Bonds on public infrastructure will be further discussed later in this staff report under Section 9.805, Improvement Agreements.

(b) Identify the proposed method of sewage disposal including:
(1) Certification that a sewage disposal system will be available to the lot line of each and every lot depicted on the Tentative Plan for a subdivision, or.
(2) A bond, contract or other assurance by the applicant that a public water supply system will be installed by or on behalf of the applicant to each and every lot depicted on the Tentative Plan.

Discussion: See staff's discussion above in response to LDC 9.226(a).

(c) Protective covenants, conditions and deed restrictions (CC&R's) to be recorded, if any.

Discussion: Any additional CC & Rs, will be identified and recorded at the time of final plat filing.

(d) Identify all proposed public dedications including streets, pedestrian or bike ways, parks or open space areas.

(e) Identify all public improvements proposed to be installed, the approximate time installation is anticipated and the proposed method of financing. Identify required improvements that are proposed to not be provided and the reason why they are not considered necessary for the proposed land division.

Discussion: 4th Street will be extended and improved to City standards. Upon completion, the street will become public right of way. The future extension of 4th Street, into Wetleau Drive, to the south is consistent with the Lowell Master Road Map. Both newly constructed streets will contain 5-foot sidewalks on both sides. A timeline for the installation of required public improvements will be drafted up between the applicant and City. The preserved 50-feet of ROW to extend 4th Street to the east to serve future properties will be improved to a width of 21-feet and contain sidewalks only on the north side, due to hillside development standards.

(f) A statement that the declarations required by ORS 92.075 on the final plat can be achieved by the fee owner, vendor and/or the mortgage or trust deed holder of the property.

Discussion: Prior to issuance of building permits, the property owner shall submit the final plat in accordance with ORS 92.075. A final plat will be prepared with a licensed surveyor in the state of Oregon and in conformance with ORS 92 requirements.

Recommended FINDING for approval (LDC 9.226 ((a)-(e)): The applicant has submitted the necessary information, as seen on the tentative map and associated Sheets and in the written narrative, for staff to determine the necessary criteria contained in LDC 9.226 are met, or can be met conditionally, where applicable. Criterion met.

LDC 9.227 Supplemental Information. Any of the following may be required by the City, in writing to the applicant, to supplement the Tentative Plan.

(d) If lot areas are to be graded, a plan showing the nature of cuts and fill and information on the character of the soil.

Discussion: The applicant is not proposing to mass grade the lots, the applicant will only grade what is required to build the public improvements and infrastructure. Individual lot grading will occur when development occurs on each respective lot. Final grading plans will have to be submitted for review by the City Engineer before any earth moving can commence. Final grading plans can be submitted after tentative approval, but before earth-moving activities commence. LDC has specific grading standards that must be presented here in order for the final grading plan can be delegated to the City Engineer for review and final approval. Section 9.527 outlines grading standards for development in Lowell. A final grading plan shall be prepared by the applicant's civil engineering team that shows cut slopes no exceeded one and one-half feet horizontally to one foot vertically, fill

slopes shall not exceed two feet horizontally to one foot vertically, the type and characteristics of imported fill soils shall be the same or compatible with the existing soils on the site, fills for streets and building sites shall be engineered and approved by the City, and lastly, all sits shall be graded to directed storm water to City storm server or to natural drainage ways. Additionally, the provisions of Lowell Ordinance 227, Section 2, Excavation and Grading Building Code, are applicable to grading plans.

Recommended FINDING for approval: Staff find the preliminary grading plans submitted are acceptable for tentative approval, but a final grading plan will need to be submitted in accordance with the Lowell grading standards as contained in Section 9.527 of the LDC, reviewed and approved, by the City Engineer, prior to any earth-moving activities. Staff find this criterion conditionally met.

Condition of Approval #1: A final grading plan shall be submitted to the City Engineer for review and approval, prior to earth-moving activities. The grading plan shall conform to the grading standards are listed in Section 9.527 GRADING and Lowell Ordinance 227, Section 2, Excavation and Grading Building Code.

(e) Specifications and details of all proposed improvements.

Discussion: The applicant has shown all proposed improvements on the tentative map and the associated Sheets, as prepared by the applicant's civil engineering team. The proposed public improvements include the improvement and extension of 4th Street, complete with sidewalks on both sides and northly and southern extension of Wetleau Drive. The applicant will also be preserving and improving a 50-foot future right-of-way access for a future public street to reach tax lot 200, if it ever develops. The City Engineer has reviewed the preliminary plans and has preliminary approved them for tentative approval purposes only, the City Engineer does have comments on the proposal, but those can be handled during the construction drawing plan phase of the project, post tentative approval. The applicant's engineering team is aware of the comments of the City Engineer and can work with the City Engineer to address them during the construction drawing plan phase. Staff include the City Engineer's comments as **Attachment H**. This will be a condition of approval.

(f) Wetland delineation if identified as an existing condition in Section 9.224(f).

Recommended FINDING for approval: The proposed subdivision crosses mapped areas indicating wetlands may be present on the subdivision. Staff used the Local Wetlands Inventory Map to gauge the possible presence of wetlands. On October 31, 2019, staff submitted the local wetland land use notification to DSL for comment and review. On November 18, 2019 DSL responded that there may be waters/wetlands that are subject to state-removal fill law; a state permit may be required. The applicant has submitted a Wetland Delineation Report to DSL for review and concurrence. Staff recommend a condition of approval that before any earthmoving activates commence, the applicant receive concurrence from DSL with respect to the presence of wetlands and follow and/or obtain all necessary permits required per DSL's decision. See **Attachment D** Wetland Land Use Notice and initial response from DSL.

On November 11, 2020, the applicant submitted a wetland delineation report completed by Pacific Habitat Services, to DSL for concurrence. The applicant's wetland delineation report is included in

this staff report as **Attachment O**. As of the writing of this staff report, staff are not aware of DSL concurrence for the applicant's delineation, as such, the condition to receive DSL concurrence before any earth-moving activities on the subject properties remains.

The proposal is consistent with this criterion with the condition of approval that:

Condition of Approval #2*:* Prior to the commencement of any earth-moving activities on the subject property, the applicant shall receive DSL concurrence on the wetland delineation report and comply with any requirements of DSL in terms of obtaining a fill-removal permit or appropriate mitigation.

> ***LDC 9.228 Decision Criteria. A Partition Tentative Plan may be approved by the Planning Commission and a Subdivision Tentative Plan may be approved by the City Council. Approval shall be based upon compliance with the submittal requirements specified above and the following findings.***
>
> ***(a) That the proposed land division complies with applicable provision of City Codes and Ordinances, including zoning district standards.***

Discussion: Comment submitted by Ms. Nelson contends the applicant's proposal does not meet the applicable approval criteria for a subdivision because the proposal does not comply with City Codes or Ordinances. Specifically, Ms. Nelson points out a violation of LDC 9.228(d) which states the proposal will not "*preclude the orderly extension of streets and utilities on undeveloped and underdeveloped portions of the subject property or on surrounding properties*." and LDC 9.228(f), which states the "*proposed public utilities can be extended to accommodate future growth beyond the proposed land division.*" Staff have looked into Ms. Nelson's concerns and tend to agree with the comments. Staff are recommending the City require the applicant to improve the 50-feet of persevered ROW located south of lot 26 to ensure the orderly extension of streets on undeveloped surrounding properties. Additionally, staff are recommending the applicant place phase three power conduits in its easements to allow for the eventual construction of a pump station to help serve water to higher elevations. The applicant is not expected to bear the costs for the phase three power conduits alone, rather the city is expected to off-set a portion of the costs.

Recommended FINDING for approval: The applicant is proposing to create a 16-lot subdivision as the next phase of the 4th Street development. The underlying zoning classification is Single-Family residential and is consistent with the proposal. As seen on the tentative map (see **Attachment B**), all of the proposed lots are above the minimum lot size of 7,000 square feet. All lots meet the minimum lot depth and width. Staff are recommending the city require the applicant to improve the 50-feet of preserved ROW that is south of lot 26 because not doing so would preclude the orderly extension of streets on undeveloped properties. Additionally, staff is recommending, and the applicant is not opposed to, providing space in its easements for phase three power conduits. It's expected the City will offset some of these costs associated with phase three power conduits. Staff finds the proposal complies with the applicable provision of City Codes and Ordinances. Criterion met.

> **(b)** ***Where the property division results in any lots or parcels that are larger than 2 and one-half times the minimum lot size, the applicant shall provide a sketch plan showing***

how the parcels may be re-divided in the future to provide for at least 80% of maximum density within current minimum lot sizes, existing site constraints and requirements of this Code.

Discussion: The proposed subdivision is the final phase and build out of property owned by the applicant. The proposed subdivision is the next phase of the series of homes immediately adjacent to the existing subdivision development located immediately to the west on 4th Street. There are no lots involved in the subdivision that are 2.5 times the minimum lot size. Staff find this criterion does not apply.

Recommended FINDING for approval: The proposed subdivision is the final phase and build of the property owner owned by the applicant. The proposed subdivision is the next phase of the series of homes immediately adjacent to the proposed subdivision. There are no lots involved in the subdivision that are 2.5 times the minimum lot size. Staff find this criterion does not apply.

(c) The applicant has demonstrated that the proposed land division does not preclude development on properties in the vicinity to at least 80% of maximum density possible within current minimum lot sizes, existing site conditions and the requirements of this Code.

Recommended FINDING for approval: There are existing site conditions that must be brought up when addressing this criterion. The adjacent properties located above the proposed subdivision are above an elevation in which city water can adequately be provided at about 880 feet. The proposed subdivision will provide water lines in the northly and southerly extensions of Wetleau Drive that can be used for future development above 880 feet, once water service is available above 880 feet. The addition, and agreement between the City and the applicant, of the three phase power conduits for a future pump station will greatly advance the City's ability to place a water reservoir above the 880-foot mark in anticipation of development at higher elevations. Additionally, the steep slopes located above the proposed subdivision will impact the level of development that can occur on those parcels, this is not to say development is precluded, but is made more difficult when considering the slopes. The applicant has provided a map showing how lots 100 and 200 may be developed in the future, when taking access from the northly extension of Wetleau Drive. The applicant's engineer has concerns related to steep slope development and the level of cuts and fills that would be required to reserving a future full right-of-way in between lots 25 and 26 to serve future development on tax lot 200.

As an alternative, the applicant is proposing to preserve 50-feet of ROW to the south of proposed Lot 26 for a future public right of way (extension of 4th Street) to reach tax lot 100, should it develop in the future. The city will require the applicant improve this 50-feet of preserved ROW to the property boundary, as required in LDC 9.517 (Streets). The northly and southerly extensions of Wetleau Drive are preserved to serve future development to the north and south. As such, staff find the applicant has not precluded the proposed land division does not preclude development on properties in the vicinity to at least 80% of the maximum density, when considering current minimum lot sizes, existing site conditions and site constraints.

(d) The proposed street plan:

(1) Is in conformance with City standards and with the Master Road Plan or other transportation planning document.

Recommended FINDING for approval: The proposed extension of 4th Street is in conformance with the Master Road Plan and Map. The extension of 4th Street is currently dedicated right-of-way and will be extended to the boundary of the property of the proposed subdivision and improved to full City standards for the functional class of right of way. The extension of 4th Street will be completed with sidewalks and conform to City standards. To meet the previous condition of approval #2 that was applied to Lot 16 (which is the entire subject property), as part of the previous subdivision development, the applicant will be preserving and improving future right of way to ensure properties located above the subject property have access when/if they develop in the future (seen on the tentative map, located south of Lot 26).

(2) Provides for adequate and safe traffic and pedestrian circulation both internally and in relation to the existing City street system.

Recommended FINDING for approval: The Fire Chief of the Lowell Rural Fire Protection District (LRFPD) has issued comment that turnarounds are needed at the dead-ends of Wetleau Drive. Lowell Development calls for turnarounds on dead-end streets that are planned to extend in the future. Per the Master Road Map, both the northerly and southerly extensions of Wetleau Drive are planned to extend to connect future rights-of-way. These two dead-ends streets will need fire-department approved turnarounds placed at the terminus to allow for adequate and safe fire and emergency vehicle backing and turnaround. The applicant has shown these two turnarounds on the tentative map.

(3) Will not preclude the orderly extension of streets and utilities on undeveloped and underdeveloped portions of the subject property or on surrounding properties.

Recommended FINDING for approval: The proposal will not preclude the orderly extension of streets. The applicant's proposal with respect to the placement and location of Wetleau Drive to the north and south of the proposed subdivision, correctly align with the future extension of streets in Lowell, according to the Lowell Master Road Map. Additionally, the applicant is preserving and improving 50-feet of ROW south of Lot 26 to serve future development on tax lot 100 or on properties located above the proposed subdivision. The requirement for a preservation of future ROW to this area was included in the past subdivision that involved Lot 16 (which is the subject property). The City informed the applicant that this condition for the preservation of future ROW to serve this area is a valid and required condition and the applicant presented a plan that satisfies this requirement. The applicant is also not opposed to providing conduits within its easements for phase three power. These conduits will go towards providing power to a pump station in the future, which will be used to supply water to higher elevations. Staff recommend a condition of approval that commits the applicant to supply phase three power conduits within its easements. It's expected the City will offset some of the costs associated with this. Without knowing the precise amount of the construction cost of the phase three power conduits, staff is unable to recommend a dollar amount the city is willing to offset. As such, a recommended condition of approval would only commit the

applicant to providing these conduits and the details regarding the reimburses or cost offset would be worked out between the City and the applicant in a development agreement. Criterion met.

(e) Adequate public facilities and services are available to the site, or if public services and facilities are not presently available, the applicant has demonstrated that the services and facilities will be available prior to need, by providing at least one of the following:
(1) Prior written commitment of public funds by the appropriate public agency.
(2) Prior acceptance of public funds by the appropriate public agency of a written commitment by the applicant or other party to provide private services and facilities.
(3) A written commitment by the applicant or other party to provide for offsetting all added public costs or early commitment of public funds made necessary by development, submitted on a form acceptable to the City.

Recommended FINDING for approval: No public funds are requested for the required public facilities required for lots associated with the subdivision. Adequate public city services are available to all lots associated with the proposed subdivision. The applicant, at their own expense, will construct the public facilities in order to provide the city services to all lots seen on the tentative map. Criterion met.

(f) That proposed public utilities can be extended to accommodate future growth beyond the proposed land division.

Recommended FINDING for approval: All utilities required to serve lots 16-31 will be installed at the expense of the applicant. Adequate public facilities are proposed to be constructed in order to deliver city services to lots 16-31, at the applicant's expense. The proposed subdivision is the next phase of an already developed subdivision, which public infrastructure has been placed and can readily be extended to lots 16-31.

In Lowell, obtaining city water service above ~880 feet is not currently practical, due to elevation and the need for additional pumps and city services above that elevation. The requirement of the three phaser power conduits will make obtaining water at higher elevations a possibility, with the future inclusion of a City pump station and water reservoir. The proposed lots can all receive city services. There is no proposed development outside of the subject property, which tops out right near 880 feet. If, in the future, the City invests in further public infrastructure for the ability for water to reach higher elevations, the existing infrastructure that will be in place because of the subdivision will make it more practical, as there are existing pipes and lines to tie into. Public facilities, in the form of a preserved and improved future right of way for 4th Street is provided for by the applicant to serve tax lot 200 and conduits for three phase power to power a pump station to assist in providing water service to higher elevations. The northly and southern extension of Wetleau Drive will have the ability to connect to future streets, should development occur on abutting properties.

(g) Stormwater runoff from the proposed land division will not create significant and unreasonable negative impacts on natural drainage courses either on-site or downstream, including, but not limited to, erosion, scouring, turbidity, or transport of sediment due to increased peak flows and velocity.

Discussion: The applicant's engineering team has submitted a drainage study, see **Attachment C**. The applicant is proposing to utilize existing city infrastructure to handle drainage and stormwater and to add minor upgrades, as necessary. The applicant's proposal to utilize mainly existing drainage infrastructure and catch basins, has been preliminary approved by the City Engineer. If during the review of the final drainage plan and details, a need for additional inlets or culverts are required, the City Engineer has indicated those can be placed on-site. However, If after review of the final drainage plan/details, it's discovered off-site culverts or inlets are required to handle the stormwater generated from the proposal, it shall be the applicant's cost to install. The City Engineer, if off-site drainage culvert or inlets are required, the City' existing stormwater system can reasonably be modified to accommodate the improvements. Also, as outlined in the Resolution List, with respect to the 4th Street extension, the applicant will extend a 12" storm main up the 4th Street stub, or as discussed in the Resolution List. The applicant shall submit final drainage plans and details for review and approval by the City Engineer. Stormwater infrastructure details shall be worked through between the City Engineer and applicant's engineering team and finalized during the construction drawing phase.

Recommended FINDING for approval: The applicant's engineering team has submitted a drainage study. The study has analyzed the runoff coefficient of the subject property's soils and estimated rainfall intensity for a 25–year and a 100–year storm event. Impervious surfaces of roads, driveways, sidewalks and roofs have been included in this analysis. Storm pipes and manholes will be sized to accommodate the anticipated storm runoff from curbs and gutters. The plan calls for the development of a swale and 18" culvert to handle anticipated flows generated by 25– and 100–year storm events. The City Engineer has verified that the proposed drainage system is capable of handling anticipated storm events as well as larger ones. The study's drainage maps show the areas of sheet lows, drainage courses and existing manholes. It divides the subdivision area into sub–basins and indicates the location and size of pipes necessary to handle anticipated sub–basin flows and the location of diversion points, culverts and swales. Also, as outlined in the Resolution List, with respect to the 4th Street extension, the applicant will extend a 12" storm main up the 4th Street stub, or as discussed in the Resolution List.

The applicant shall submit final drainage plans/details for review and approval by the City Engineer, prior to the commencement of construction of public improvement facilities. These details will be worked through between the City Engineer and applicant's engineering team during the construction drawing phase. The proposal is consistent with this criterion with the condition of approval that:

> **Condition of Approval #3:** The applicant shall submit final drainage plans/details for review and approval by the City Engineer, prior to the commencement of construction of public improvement facilities. The final drainage plan shall be substantially the same as the drainage plan approved with the approval of the tentative subdivision plan. Additional off–site culverts and inlets made necessary by the final drainage plan shall be paid for by the applicant.

(h) The proposed land division does not pose a significant and unreasonable risk to public health and safety, including but not limited to fire, slope failure, flood hazard, impaired emergency response or other impacts identified in Section 9.204(u).

Recommended FINDING for approval: The proposed subdivision is not expected to pose a significant and unreasonable risk to public health and safety. However, there are inherent risks involved with the proposal due to hillside development, emergency service access and circulation. There are measures that the City and applicant are taking to address these issues. The applicant has shown the required fire-department turnarounds at the terminus of the northly and southerly extensions of Wetleau Drive. Relatedly, the LRFPD indicates a need for an additional fire hydrant to be placed at or near the western edge of the proposed northern extension of Wetleau Drive. This will be a condition of approval and can be addressed between LRFPD, the City Engineer and the applicant's engineering team

Additionally, lots 23,25, and 26 have slopes of 15 percent or greater. Special hillside development standards will apply to these lots.

Conditions of Approval #4: Applicant shall install fire hydrant at or near the western edge of the northerly extension of Wetleau Drive. Details of design and placement to be worked out amongst LRFPD, City Engineer, and the applicant's engineering team, during the construction drawing phase. Prior to final plat approval, evidence of the installation of the fire hydrant shall be shown at or near the western edge of the northerly extension of Wetleau Drive, or as approved by LRFPD and the City Engineer.

> ***LDC 9.518 Sidewalks. Public sidewalk improvements are required for all land divisions and property development in the City of Lowell. Sidewalks may be deferred by the City where future road or utility improvements will occur and on property in the rural fringe of the City where urban construction standards have not yet occurred. The property owner is obligated to provide sidewalk when requested by the City or is obligated to pay their fair share if sidewalks are installed by the City at a later date. An irrevocable Waiver of Remonstrance shall be recorded with the property to guarantee compliance with this requirement.***

Recommended FINDING for approval: As per LDC all land divisions in Lowell require public sidewalk improvements to be installed. As such. the applicant will be required to install public sidewalks, including curb and gutter, in accordance with Section 9.518 and the Lowell Standards Documents for engineering and construction. The addition of sidewalks along both sides of the extension of 4th Street and both extensions of Wetleau Drive will be a condition of approval. The presence of the required 5-foot sidewalks are shown on the applicant's Tentative Map.

The proposal is consistent with this criterion with the condition of approval that:

Condition of Approval #5: Prior to the issuance of building permits, the applicant/developer shall construct sidewalks, including curb and gutter along both sides of the extension of 4th Street and the northly and southerly extensions of Wetleau Drive. Sidewalks shall be inspected by the City of Lowell before acceptance. Sidewalks shall be constructed to a width of 5-feet and in accordance with Lowell Standards Documents for engineering and construction. The 21-foot-wide extension of 4th Street, to the south of Lot 26, shall have sidewalks placed on the northern side of the street.

> ***LDC 9.516 Access.***
> ***(a) Every property shall abut a street other than an alley for a minimum width of 16 feet, of***

which 12 foot must be paved, except where the City has approved an access to multiple lots sharing the same access in which case the total width must be at least 16 feet. No more than two properties may utilize the same access unless more are approved with the tentative plan.

(b) The following access alternatives to Panhandle properties may be approved by the City:

(1) Approval of a single access road easement to serve proposed parcels. The City may require a provision for conversion to a dedicated public road right-of-way at some future date, in which case the easement shall have the same width as a required right-of-way.

(2) Approval of a road right-of-way without providing the road improvements until the lots are developed. This places the burden for road improvements on the City although the City can assess all of the benefiting properties when improvements are provided in the future. As a condition of approval, the City may require an irrevocable Waiver of Remonstrance to be recorded with the property.

(3) Approval of a private road. This approach should only be used for isolated short streets serving a limited number of sites and where future City street alignments will not be needed.

Recommended FINDING for approval: All lots have legal access onto a right of way. A 20-foot-wide access and utility easement will be placed between lots 16 and 17. Lots 16 and 17 are flag lots but will share access. Per LDC, access to two lots may be approved as part of the tentative map approval process and in which case, the total width of the access easement must be at least 16-feet. In the case of the access easement between lots 16 and 17, the total width is 20-feet, which is above the 16-foot minimum. The access easement between lots 16 and 17 shall include paving to a width of at least 16-feet.

A second access and utility easement is shown in between lots 25 and 26. The proposed width of this easement is 25-feet. The proposed easement is meant to serve the existing home/structure located on tax lot 100, which is above the proposed subdivision and provide driveway access to the future homesites on lots 25 and 26. The access easement between lots 25 and 25 shall be paved to a width of at least 16-feet.

Access criteria are met with the following Conditions of Approval:

Condition of Approval #6: Lots 16 and 17 share a common access and utility easement which has a width of 20-feet, of the 20-feet, 16-feet shall be paved up until at least the crest of the panhandle.

Condition of Approval #7: Lots 25 and 26 are proposed to have a common access and utility easement of 25-feet that will serve the existing home/structure located on tax lot 100, as well as driveway access for lots 25 and 26. This access and utility easement shall be paved to a width of at least 16-feet.

LDC 9.517 Streets.
(a) Urban public street improvements including curbs, gutters and storm drainage are required for all land divisions and property development in the City of Lowell. Urban street improvements may be deferred by the City if there is not existing sidewalk or storm drain

system to which connection can be made, conditional upon the responsible party agreeing to an irrevocable waiver of remonstrance to a future assessment at the time of construction of a sidewalk which is otherwise required to be constructed.

Recommended FINDING for approval: The applicant will be responsible for all costs and installation of all required urban public street improvements consistent with the standards of the City of Lowell**.** The extension of 4th Street has already been dedicated, but not improved to City standards. The extension of 4th Street will be completed to City standards and shall be inspected by the City of Lowell for compliance, before acceptance of public improvements. Both the northly and southerly extensions of Wetleau Drive will also be improved to City Standards. The preserved 50-feet of ROW (located south of lot 26) for the future extension of 4th Street to serve future development on tax lot 100 will also be required to be improved. Criterion met.

(b) The location and grade of streets shall be considered in their relation to existing and planned streets, topographical conditions, public convenience and safety, and to the proposed use of land to be served by the streets. The street system shall assure an adequate traffic circulation system with intersection angles, grades, tangents and curves appropriate for the traffic to be carried considering the terrain. The arrangement of streets shall either:

(1) Provide for the continuation or appropriate extension of existing principal streets in the surrounding area; or
(2) Conform to a plan for the neighborhood approved or adopted by the City to meet a particular situation where topographical or other conditions make continuance or conformance to existing streets impractical.

Discussion: The proposed subdivision can be designed per the City of Lowell design requirements as seen on the tentative map and associated Sheets. The tentative map shows the extension of 4th Street and the northern and southern extensions of Wetleau Drive and 50-feet of improved ROW for the future extension of 4th Street to serve tax lot 100, if developed. Final street improvement plans and inspection of street improvements prior to final plat approval and acceptance of improvements will be a condition of approval.

Recommended FINDING for approval: Applicant has shown on the tentative map and on the associated Sheets that urban public street improvements including curbs, gutters and storm drainage can be constructed to City of Lowell standards. Applicant shall submit final street improvement plans to the City Engineer, for review and approval, before street construction commences. Prior to final plat approval and acceptance by the City, the urban public street improvements shall be inspected by the City of Lowell for compliance.

Condition of Approval #8: Applicant shall submit final street improvement plans to the City Engineer, for review and approval, before street construction commences. Prior to final plat approval and acceptance of urban public street improvements, the applicant shall install urban public street improvements to City standards. Street public improvement plans shall include plans for the improvement of the 50-feet of preserved ROW, located south of lot 26, for future access to tax lot 200. Public street improvements will be inspected by Lowell Public Works or the City Engineer for compliance with Lowell Standards.

(c) Minimum right-of-way and roadway widths. Right-of-way widths and the paved width of streets and sidewalks shall be as prescribed in the City's most current Standards for Public Improvements. Right-of-way widths may be reduced to that needed only for construction of streets and sidewalks if a minimum of a five-foot utility easement is dedicated on both sides of the right-of-way.

Recommended FINDING for approval: The proposed extension of 4th Street and the northly and southerly extension of Wetleau Drive will both contain 50-feet of right of way and 5-foot sidewalks on both sides. The 21-foot-wide extension of 4th Street is proposed to be 21-feet wide due to hillside development standards. This portion of 4th Street shall also have sidewalks on the north side, consistent with Lowell standards for sidewalks and when considering the hillside development standards. The proposed subdivision will be designed per the City of Lowell design requirements and reviewed by the City of Lowell for compliance. This proposal meets the City of Lowell's minimum standards. Inspection of urban public street improvements will be inspected for compliance with Lowell Standards by the City Engineer or his or her designee, prior to acceptance.

(d) Where conditions, particularly topography or the size and shape of the tract make strict adherence to the standards difficult, narrower developed streets may be approved by elimination of parking on one or both sides of the street and/or elimination of sidewalks on one side of the street.

Recommended FINDING for approval: Narrower streets are not proposed nor are the elimination of sidewalks on one side of the street. The proposed extension of 4th Street to serve lots 16-31 and the northly and southerly extensions of Wetleau Drive will be designed per the City of Lowell design requirements and reviewed by the City of Lowell for compliance. Sidewalks are proposed for both sides of the street, as well as the northly side of the 21-foot-wide 4th Street extension located south of Lot 26. The preserved 50-foot of ROW located south of lot 26 will be required to be improved by the applicant. Criterion met.

(e) Where topographical conditions necessitate cuts or fills for proper grading of streets, additional rights-of-way or slope easements may be required.

Discussion: The applicant anticipates some slope easements will be required to be used for construction of a slope on certain lots due to topographical conditions. Slope easements are generally used to adjust the elevation difference between adjoining properties. The proposed subdivision does have hillside development conditions located on lots 23, 25 and 26. Slope easements will be determined at the time of construction drawings. If it is determined, between the applicant's engineer and the City Engineer, during the construction drawing phase, that no slope easements are necessary or non-existent, then the final plat shall contain a plat note stating such. This will be a condition of approval to be shown on the final plat.

Recommended FINDING for approval: Due to topographical conditions and hillside development constraints on lots 23, 25 and 26, which contain slopes of 15 percent or greater, slope easements may be required. Slope easements shall be determined at the time of submittal of construction drawings, as such, prior to final plat approval, the applicant shall submit plans for slope easements for review by the City Administrator or his or her designee. If it is determined,

between the applicant's engineer and the City Engineer, during the construction drawing phase, that no slope easements are necessary or non-existent, then the final plat shall contain a plat note stating such. Staff find compliance is feasible and this criterion can be met, conditionally.

Condition of Approval #9: Prior to final plat approval, the applicant shall submit plans to the City Administrator or his or her designee, showing slope easements as required, where topographical conditions necessitate cuts or fills for proper grading of streets, additional right-of-way or slope easements. If it is determined, between the applicant's engineer and the City Engineer, during the construction drawing phase, that no slope easements are necessary or non-existent, then the final plat shall contain a plat note stating such.

> ***(f) Reserve Strips: A reserve strip is a 1-foot strip of land at the end of a right-of-way extending the full width of the right-of-way used to control access to the street. Reserve strips will not be approved unless necessary for the protection of the public welfare or of substantial property rights. The control of the land comprising such strips shall be placed within the jurisdiction of the City by deed under conditions approved by the City. In addition, a barricade shall be constructed at the end of the street by the land divider which shall not be removed until authorized by the City. The cost shall be included in the street construction costs by the land divider.***

Recommended FINDING for approval: Reserve strips are not necessary as the extension of 4th Street and the extensions of Wetleau Drive are already dedicated rights-of-way. The previous dedication was part of an agreement made with the original subdivider of this land. Comment has been received by a neighboring property owner on this matter. Staff looked into the concerns and agreed with the commenter. Reserve strips in this situation, over dedicated streets, would be inconsistent with the present situation, in that dedication has already occurred. To see the submitted comments, please refer to **Attachment M**. Reserve strips are not proposed for the proposed development. Criterion not applicable.

> ***(g) Alignment: As far as is practicable, streets shall be in alignment with existing streets by continuations of the center lines thereof. Staggered street alignment resulting in "T "intersections shall, wherever practical, leave a minimum distance of 260 feet between the center lines of streets having approximately the same direction.***

Recommended FINDING for approval: The extension of 4th Street will be a continuation of the presently dedicated and existing 4th Street located immediately to the west of the proposed subdivision. The proposed intersection will result in a "T-intersection" at the intersection of the extension of Fourth Street and the northerly portion of Wetleau Drive. There are no other existing "T-intersections" to the north or south of the subject property.

The proposed location of the 50-foot preserved future ROW south of lot 26, is proposed in such a manner because there the placement of a street between lots 25 and 26 is not practical due to steep slopes. As such, the applicant's engineer found an alternative location where 50-feet of ROW can be preserved, and that location is south of lot 26. This preserved and improved 50-feet of ROW will ensure the orderly development of streets on adjacent undeveloped properties. Criterion met.

> ***(h) Future Extensions of Streets: Where necessary to give access to or permit a satisfactory***

future division of adjoining land, streets shall be extended to the boundary of the subdivisions or partition and the resulting dead-end streets may be approved with a turn-around instead of a cul-de-sac. Reserve strips and street plugs may be required to preserve the objectives of street extensions.

Recommended FINDING for approval: The northerly and southerly extensions of Wetleau Drive are planned to extend in the future, as show on the Lowell Master Road Map. The applicant will be required to pave the extension of 4th Street to serve the proposed lots and the two extensions of Wetleau Drive. The city is requiring the preserved 50-feet of ROW located south of lot 26 to be improved because subsection (h) of LDC 9.517 states, streets shall be extended to the boundary of the subdivision. This extension and improved of this section of 4th Street will is necessary to give access or to permit satisfactory division of adjoining land and was also a requirement in the form of a condition of approval placed on Lot 16 (which is the entire subject property) from the Sunset View Ranch subdivision in 2006. The preserved and improved 50-feet of ROW will ensure the orderly development of streets on adjacent undeveloped properties. Criterion met.

(i) Intersection Angles: Streets shall be laid out to intersect at angles as near to right angles as practical except where topography require a lesser angle, but in no case shall the acute angle be less than 60 degrees unless there is a special intersection design.

Recommended FINDING for approval: As shown on the tentative map and new Sheet 2, dated December 28, 2020, the street intersection angels are at right angles or as near as possible. From staff's visual inspection of the intersection at Fourth Street and the northly extension of Welteau Drive and the small future section of 4th Street with Wetleau, it is right-angle, or as near as is practical. Criterion met.

(j) Existing Streets: Whenever existing streets adjacent to or within a tract are of inadequate width, additional right-of-way shall be provided at the time of approval of the land division or land use approval.

Recommended FINDING for approval: The only existing adjacent street is 4th Street, which was constructed during the first portion of the subdivision. The newly constructed extension of 4th Street to serve lots 16-31 and the northly and southerly extensions of Wetleau Drive will all be constructed to current Lowell street standards, including the 50-foot portion of reserved ROW, that is located south of lot 26. As discussed in this staff report, the applicant will be improving the 50-feet of ROW south of lot 26 to serve future development on adjacent properties.

(k) Half Street: Half streets, while generally not acceptable, may be approved where essential to the reasonable development of the subdivision or partition when in conformity with the other requirements of these regulations and when the Planning Commission finds it will be practical to require the dedication of the other half when the adjoining property is divided. Whenever a half street is adjacent to a tract to be divided, the other half of the street shall be provided within such tract. Reserve strips and street plugs may be required to preserve the objectives of half streets.

Recommended FINDING for approval: Half streets are not proposed. This criterion is not applicable.

(l) Cul-de-sacs: A cul-de-sac should have a maximum length of 500 feet but may be longer where unusual circumstances exist. A cul-de-sac shall terminate with a circular or hammerhead turn-around.

Recommended FINDING for approval*:* The dead-end extension of Wetleau Drive will terminate with a hammerhead or equivalent turnaround. LDC allows for dead ends to terminate in a hammerhead rather than a cul-de-sac. The presence of two hammerhead turnaround at the northly extension of Wetleau Drive and southerly extension of 4th Street are shown on the tentative map. A "No Parking" sign shall be installed at these two turnarounds. Criterion met conditionally.

Condition of Approval #10: A "No Parking sign shall be installed at the ends of the two turnarounds located at the northly and southerly extensions of Wetleau Drive.

(m) Street Name Signs: Street name signs shall be installed at all street intersections to City standards.

Discussion: The applicant will be required to install street signs in accordance with LDC. Street name signs shall be included on the final plat. This will be a condition of approval.

Recommended FINDING for approval: The applicant shall submit evidence, prior to final plat approval, street name signs are installed in accordance with LDC. This will be a condition of approval. Criterion met with the following Condition of Approval.

Condition of Approval #11: Prior to final plat approval, applicant shall submit evidence to the City Administrator or his or her designee, that the proposal complies with the street name signs standards as listed in the LDC.

(n) Street Lights: Street lights shall be installed to City standards and shall be served from an underground utility.

Discussion: Street lights will be installed at the expense of the applicant and shall be served from an underground utility, consistent with LDC. This will be a condition of approval

Recommended FINDING for approval: The applicant shall submit evidence, prior to final plat approval, demonstrating the proposed streetlights are in compliance with LDC standards. Criterion met with the following Condition of Approval.

Condition of Approval #12: Prior to final plat approval, applicant shall submit evidence to the City Administrator of his or her designee, that the proposal complies with streetlights standards as listed in the LDC.

(o) Traffic Signs/Signals: Where a proposed intersection will result in the need for street signals to serve the increased traffic generated by the proposed development, they shall be provided by the developer or land divider and the costs shall be borne by the developer or land divider unless an equitable means of cost distribution is approved by the City.

Recommended FINDING for approval: A "No Parking" sign has been identified as being required at the two hammerhead turnarounds at the northly and southerly extensions of Wetleau Drive. This has been appropriately conditioned in this staff report.

> ***(p) Private Streets: Private streets are permitted within Planned Developments, Manufactured Home Parks, singularly owned developments of sufficient size to warrant interior circulation on private streets or on small developments where integration into the public road system is impractical. Design standards shall be the same as those required for public streets unless approved otherwise by the City. The City shall require verification of legal requirements for the continued maintenance of private streets.***

Recommended FINDING for approval: Private streets are not part of the proposal. Criterion not applicable.

> ***(q) Mailboxes: Provisions for mailboxes shall be provided in all residential developments where mail service is provided. Mailbox structures shall be placed as recommended by the Post Office having jurisdiction and shall be noted on the plan.***

Discussion: The applicant has not addressed this specific criterion related to mailboxes nor can staff locate any proposed mailboxes or mail structures on the tentative map. As such, evidence of compliance with the criteria for mailboxes shall be shown, prior to final plat approval.

Recommended FINDING for approval: There is no indication how the applicant intends to comply with this specific criterion. Staff will impose a condition of approval, prior to final plat approval.

Condition of Approval #13: Prior to final plat approval, the applicant shall provide evidence, to the City Administrator or his or her designee, that the proposed mailbox structure or provision(s) for handling mail to the proposed lots, has been approved by the local Post Office having jurisdiction and shall be noted on the plan as a plat note.

> ***(r) Clear Vision Areas: In all districts a clear vision area shall be maintained at the corners of all property located at the intersection of two streets or a street-alley. A clear vision area shall also be maintained at all driveways intersecting a street. See Figure 9.5-2 All properties shall maintain a clear triangular area at street intersections, alley- street intersections and driveway-street intersections for safety vision purposes. The two sides of the triangular area shall be 15 feet in length along the edge of roadway at all street intersections and 10 feet in length at all alley-street intersections and driveway-street intersections. Where streets intersect at less than 30 degrees, the triangular sides shall be increased to 25 feet in length. The third side of the triangle shall be a line connecting the two exterior sides.***
>
> ***A clear vision area shall contain no plantings, fences, walls, structures, or temporary or permanent obstruction exceeding 3 feet in height, measured from the top of the curb, or, where no curb exists, from the established street center line grade. Trees exceeding this height may be located in this area, provided all branches or foliage are removed to a height***

of 8 feet above grade.

Recommended FINDING for approval: 4th Street and the northerly extension of Wetleau Drive and the small extension of 4th Street, south of lot 26 and Wetleau Drive, will be at an intersection to each other, as such the Clear Vision Area standards will apply.

All properties shall maintain a clear triangular area at street intersections. The two sides of the triangular area shall be 15 feet in length along the edge of the roadway at all street intersections and 10 feet in length at all alley-street and driveway-street intersections. Where streets intersect at less than 30 degrees, the triangular sides shall be increased to 25 feet in length. The third side of the triangle shall be a line connecting the two exterior sides.

Additionally, a clear vision area shall contain no planting, fences, walls, structures or temporary or permeant obstruction exceeding three feet in height. Trees exceeding this height may be located in this area, provided all branches or foliage are removed to a height of eight feet above grade. The applicant has not specifically addressed how the proposal will comply with Clear Vision Areas, as presented above. As such, staff will recommend a condition of approval for Clear Vision Areas plans to be presented to the City Administrator or his or her designee for compliance, prior to final plat approval. Staff find compliance with the Clear Vision Area standards are feasible to be met by the applicant**.** This will be a condition of approval.

Standards for Clear Vision Areas have not been addressed at time of tentative map submittal. As such, the applicant shall provide evidence that Clear Vision Standards have been addressed in accordance with LDC 9.517 (r) (r). Staff find compliance with Clear Vision Area standards as indicated in LDC 9.517 (r) feasible for the applicant to meet. As such, plans for compliance shall be presented to the City Administrator or his or her designee for review and approval, prior to final plat approval.

Condition of Approval #14: Prior to final plat approval, plans for compliance with Clear Vision Areas shall be presented to the City Administrator or his or her designee and reviewed and verified for compliance with the Clear Vision Areas standards as listed in the LDC 9.517(r).

LDC 9.519 Bikeways. Bikeways are required along Arterial and Major Collector streets. Currently the only Bikeway requirements are those required by the County as a part of the County owned Major Collector streets within the City. Future requirements for Bikeways may be addressed at such time that a Transportation System Plan (TTSP) is completed for the City., but until specific Bikeway requirements are adopted, travel lanes of all streets that do not require Bikeways are approved for joint use with bicycles.

Discussion: The extensions of Fourth Street and Wetleau Drive are not Arterials or Major Collectors, as such this criterion does not apply.

LDC 9.520 Storm Drainage. Until completion of a Storm Drainage Master Plan for the City of Lowell, Section IV, of the Standards for Public Improvements and the following shall apply. In the event of a conflict, the following takes precedence.

(a) General Provisions. It is the obligation of the property owner to provide proper drainage and protect all runoff and drainage ways from disruption or contamination. On-site and off-site drainage improvements may be required. Property owners shall provide proper drainage and shall not direct drainage across another property except as a part of an approved drainage plan. Paving, roof drains and catch basin outflows may require detention ponds or cells and discharge permits. Maintaining proper drainage is a continuing obligation of the property owner. The City will approve a development request only where adequate provisions for storm and flood water run-off have been made as determined by the City. The storm water drainage system must be separate and independent of any sanitary sewerage system. Inlets should be provided so surface water is not carried across any intersection or allowed to flood any street. Surface water drainage patterns and proposed storm drainage must be shown on every development plan submitted for approval. All proposed drainage systems must be approved by the City as part of the review and approval process.

Recommended FINDING for approval: The applicant's engineer team has submitted a drainage study, see **Attachment C**. The applicant is proposing to utilize existing city infrastructure to handle drainage and stormwater and to add minor upgrades, as necessary. The applicant's proposal to utilize mainly existing drainage infrastructure and catch basins, has been preliminary approved by the City Engineer. There may be the need for some additional culverts and inlets (located on-site). The applicant shall submit final drainage plans and details for review and approval by the City Engineer. These details will be worked through between the City Engineer and applicant's engineering team during the construction drawing phase.

(b) Urban level inlets, catch basins, and drainage pipe improvements are required for all land divisions and property development in the City of Lowell. Urban storm drainage systems may be deferred by the City in lieu of a rural system of culverts and open drainageways.

Recommended FINDING for approval: Some minor, urban storm drainage improvements are being proposed by the applicant on site. The site contains some level of existing stormwater infrastructure. There will be a need for some minor site upgrades with respect to stormwater, but by-in-large, the catch basin can accommodate the projected stormwater runoff. Criterion met.

(c) Natural Drainageways. Open natural drainageways of sufficient width and capacity to provide for flow and maintenance are permitted and encouraged. For the purposes of this Section, an open natural drainageway is defined as a natural path which has the specific function of transmitting natural stream water or storm water run-off from a point of higher elevation to a point of lower elevation. Significant natural drainageways shall be protected as a linear open space feature wherever possible and shall be protected from pollutants and sediments. A 15-foot setback is required from the centerline of any significant drainageway.

Recommended FINDING for approval: The applicant's engineering team has indicated there are cases in where they can utilize natural drainageways for water to flow from a point of high elevation to a point of lower elevation. The applicant's engineering team does not have the specific details worked out yet where these natural drainageways can be placed, but a proposal is feasible

and would likely include placing a culvert to pick up flows from a high elevation point and direct them into a low elevation point and then onto its respective drainage basin. The City Engineer has issued comment that drainage easements will be required on lots for which water drains onto or across. See **Attachment H** for City Engineer's comments, dated July 10, 2019.

While the use of natural drainageways is not required, only permitted and encouraged, the applicant can provide for natural drainageways once in the construction drawing phase of the project.

> **Condition of Approval #15:** Prior to final plat approval, natural drainageways shall be indicated on the final plat and a 15-foot setback shall be required from the centerline of any significant drainageway. Precise location of natural drainageways shall be determined by the applicant's engineers and the City Engineer and drainage easements shall be required on any lots for which water drains onto or across. If no natural drainageways are to be utilized as part of the proposed subdivision, the City will consider this condition satisfied for final plat purposes with confirmation from the City Engineer.

> ***(d) Easements. Where a land division is traversed by a water course, drainageway, channel or stream, there shall be provided a public storm water easement or drainage right-of-way conforming substantially with the lines of such water course and such further width as the City determines will be adequate for conveyance and maintenance. Improvements to existing drainageways may be required of the property owner. The property owner is also responsible for the continuing maintenance and protection of natural drainageways.***

Recommended FINDING for approval: Easements will be required on lots in which water drains onto or across. The City Engineer has identified lots 17,19, 20, 21, 23, 28, and 29 as likely requiring drainage easements. The inclusion of drainage easements will be a condition of approval, and required to be shown on the final plat, proper to final plat approval. Staff recommend a condition of approval related to drainage easements. Criterion met with the following Condition of Approval:

Condition of Approval #16: Prior to final plat approval, drainage easements of sufficient widths so as to ensure adequate conveyance and maintenance shall be shown on final plat. Specific identification of which lots will require drainage easements will be determined by the applicant's engineering staff and the City Engineer. Drainage easements shall be applied to any and all lots on which water drains onto or across.

> ***(e) Accommodation of Upstream Drainage. A culvert or other drainage facility shall be large enough to accommodate potential run-off from its entire upstream drainage area, whether inside or outside of the development. The City must review and approve the necessary size of the facility, based on sound engineering principles and assuming conditions of maximum potential watershed development permitted by the Comprehensive Plan.***

> ***(f) Effect on Downstream Drainage. Where it is anticipated by the City that the additional run-off resulting from the development will overload an existing drainage facility, the City may deny approval of the development unless mitigation measures have been approved.***

(g)Drainage Management Practices. Developments within the City must employ drainage management practices approved by the City. The City may limit the amount and rate of surface water run-off into receiving streams or drainage facilities by requiring the use of one or more of the following practices:

(***1) Temporary ponding or detention of water to control rapid runoff.***

(2) Permanent storage basins.

(3) Minimization of impervious surfaces.

(4) Emphasis on natural drainageways.

(5) Prevention of water flowing from the development in an uncontrolled fashion.

(6) Stabilization of natural drainageways as necessary below drainage and culvert discharge points for a distance sufficient to convey the discharge without channel erosion.

(7) Runoff from impervious surfaces must be collected and transported to a natural drainage facility with sufficient capacity to accept the discharge; and

(8) Other practices and facilities designed to transport storm water and improve water quality.

Recommended FINDING for approval: The applicant's preliminary storm drainage plan has been submitted and reviewed by the City Engineer and adequately addresses storm drainage as part of the tentative map approval process. As noted earlier, there may be the need for the installation of additional culverts and other minor improvements related to storm drainage. Staff find it reasonable those minor details can be worked out between the City Engineer and the applicant's engineering team during the construction drawing phase. Criterion met.

(h) NPDES Permit Required. A National Pollutant Discharge Elimination System (NPDES) permit must be obtained from the Department of Environmental Quality (DEQ) for construction activities (including clearing, grading, and excavation) that disturb one or more acres of land.

Recommended FINDING for approval: A NPDES Permit will be required before earth-moving work is performed as the subject site is largely going to be disturbed for the construction of public infrastructure and preparation of home sites. This will be a condition of approval, prior to any earth-moving work is performed.

Condition of Approval #17: Prior to the commencement of any site preparation, clearing, grading, or fill, the applicant shall obtain an approved NPDES Permit. Applicant shall submit evidence of an approved NPDES Permit to the City Administrator, or his or her designee, prior to any site preparation, grading, or fill.

LDC 9.521 Water.

(a) All new development must connect to the public water system unless specifically approved otherwise as a part of a development approval for parcels exceeding 5 acres in size after division for which the public water system is located further than 300 feet from any property line. All water line extensions, required fire hydrants, and related appurtenances shall be installed and paid for by the developer unless the City has approved otherwise as a part of the tentative plan decision process.

Discussion: The applicant is proposing city water connection to all lots being proposed. The City has the ability to serve each lot with city water service. All water line extensions required for fire hydrants and related appurtenances will be installed and paid for by the developer. As outlined in the Resolution List, the applicant will confirm that water lines will end in restrained 10" gate valves to permit future extension.

(b) All public water system improvements shall comply with Section II of the City's Standard for Public Improvements, dated September 1994. The City may modify those requirements upon a recommendation by the City Engineer in the event of special circumstances.

Discussion: The public water system improvements will be installed in accordance with the City's Standard for Public Improvements. All public improvement plans, including improvement for water, will be reviewed by the City Engineer before any construction commences.

(c) Water Line Extensions. Water distribution lines must be extended along the full length of the property's frontage along the right-of-way or to a point identified by the City Administrator as necessary to accommodate likely system expansion. Water line extensions may be required through the interior of properties, within dedicated public utility easements, when necessary to provide for service to other properties or to provide system looping for fire flows. All public water system line extensions shall have a minimum 6-inch diameter unless a smaller size is recommended by the City Engineer and approved by the City. The City Engineer may also require a larger size if needed to extend transmission capacity or for fire hydrant flow where looping is not available.

Discussion: Ms. Nelson issued comment with respect to extending full water system improvements through the development site to the edges of the property frontage and argues if the applicant does not improve the small section of preserved ROW with water system improvements, the proposal will be in violation of the above LDC section and Standards for Public Improvements Section II.A.4., because the full water system is not being extended to the edge of the property frontage and must extend along the full length of the property's frontage along the right-of-way. Staff is recommending the City require the applicant to improve the small portion of the preserved ROW extension on 4Th Street to comply with this provision, as well as sewer line extensions. The requirement to improve this portion of 4th Street has been conditioned in this staff report. Please see **Attachment R**, for the applicant's revised Utility Plan, dated January 20, 2021.

(d) Water Plan Approval. All proposed plans for extension and installation of the public water system must be approved by the City as part of the tentative plan review and approval process.

Discussion: The water plan is set forth by the applicant on Sheet 2, dated December 28, 2020. The City Engineer has reviewed the preliminary public improvement plans and has no comments that would prevent the applicant from receiving tentative approval. A final public improvement plan will be required by the applicant before construction commences and final plat approval is granted.

(e) Restriction of Development. The Planning Commission or City Council may limit or deny development approvals where a deficiency exists in the water system or portion thereof which will not be corrected as a part of the proposed development improvements.

Discussion: The applicant has submitted a preliminary site utilities plan, dated December 28, 2020 as seen on Sheet 2, the plan outlines the proposed new water line extensions required. City water, electric and sewer service is available to each proposed lot. The Site Utilities Plan provided is preliminary for tentative map approval. A final utilities plan shall be submitted for review and approval by the City Engineer prior to the commencement of any construction activities with respect to water, sewer and utilities.

Recommended FINDING for approval: The site utilities plan as seen on Sheet 2, Dated December 28, 2020 is preliminary and provided for tentative map approval and revised Utility Plan, dated January 20, 2021. A final utilities plan shall be submitted for review and approval by the City Engineer prior to commencement of any construction activities with respect to water, sewer and utilities. Criterion met with the following Condition of Approval.

Condition of Approval #18: The utilities plan as seen on Sheet 2, ~~-~~and the January 20, 2021 Utility Plan, are ~~is~~ preliminary and for tentative map approval. A final utilities plan, consistent with LDC 9.521, shall be submitted for review and approval by the City Engineer prior to commencement of any construction activities with respect to water, sewer and utilities.

LDC 9.522 Sewer.
(a) All new development must extend and connect to the public sewer system unless specifically approved otherwise as a part of a development approval for parcels exceeding 5 acres in size after division for which the public sewer system is located further than 300 feet from any property line. All sewer line extensions, manholes, required lift stations and related appurtenances shall be installed and paid for by the developer unless the City has approved otherwise as a part of the tentative plan decision process.

Discussion: The applicant is proposing city sewer connection to all lots being proposed. The City has the ability to serve each lot with city sewer service. All water line extensions required for fire hydrants and related appurtenances will be installed and paid for by the developer. See the applicant's revised Utility Plan, dated January 20, 2021.

As outlined in the Resolution List, the applicant will work with the City Engineer with respect to rear-line sewer behind proposed Lots 20-22, the invert grade of South Wetleau Drive extension and the sewer main on the 4th Street extension.

(b) All public sewer system improvements shall comply with Section III of the City's Standards for Public Improvements, dated September 1994. The City may modify those requirements upon a recommendation by the City Engineer in the event of special

circumstances.

Discussion: The public sewer system improvements will be installed in accordance with the City's Standard for Public Improvements. All public improvement plans, including improvement for sewer, will be reviewed by the City Engineer before any construction commences.

(c) Sewer Line Extensions. Sewer collection lines must be extended along the full length of the property's frontage along the right-of-way or to a point identified by the City Administrator as necessary to accommodate likely system expansion.

(d) Sewer Plan Approval. All proposed sewer plans and systems must be approved by the City as part of the tentative plan review and approval process.

(e) restriction of Development. The City may limit or deny development approvals where a deficiency exists in the sewer system or portion thereof which will not be corrected as a part of the development improvements.

Discussion: Lots 16-31 can and will be connected to city sewer services. Connections either exist nearby or are proposed to adequately provide city sewer service to lots 16-31. As discussed above, the utilities plan has been preliminary approved by the City Engineer for tentative map approval purposes. A final utilities plan will need to be submitted to the City Engineer for final approval before any construction activities with respect to public utilities take place.

Recommended FINDING for approval: The utilities plan as seen on Sheet 2, dated December 28, 2020, and the revised Utility Plan, dated January 20, 20201 are ~~is~~ preliminary and provided for tentative map approval. A final utilities plan shall be submitted for review and approval by the City Engineer prior to any construction activities commence with respect to water, sewer and utilities. The need for a final utilities plan has been conditioned in this staff report.

LDC 9.523 Utilities.

(a) It is the policy of the City to place all utilities underground except as otherwise exempted below. Developers shall make all necessary arrangements with serving utility companies for installation of such utilities.

(b) Exceptions. The City may permit overhead utilities as a condition of approval where the Applicant can demonstrate one of the following conditions:

(1) Underground utility locations are not feasible.
(2) Temporary installations.
(3) Major transmission facilities located within rights-of-way or easement
(4) Surface mounted structures, substations or facilities requiring above ground locations by the serving utility.

Recommended FINDING for approval: All utilities will be placed underground. As outlined in

the Resolution List, the applicant will be extending phone and TV conduits to the boundary of the subdivision, to allow for future extension. Staff is not aware of any exceptions that would preclude the placement of utilities underground. Utilities will be placed in accordance with LDC. Per the applicant's written narrative, staff find the applicant has sufficiently indicated their proposal can meet the requirement that all utilities be placed underground and placed within public right-of-way or in a public utility easement. The applicant will also be providing phase three power conduits within its easements for the eventual construction of a pump station to assist in serving higher elevations with water service. It's expected the City will help in the off-set of some of these costs. Criterion met.

LDC 9.524 Easements.

(a) Easements granting limited use of property for any defined purpose may be approved for any lot or parcel.

(b) Access easements may be approved by the City as provided in Section 9.516. The Planning Commission or City Council may require wider access easements if special circumstances exist.

(c) Utility easements shall be provided for sewers, water mains and public or private utilities necessary to provide full service to all developments. Land dividers shall show on the Tentative Plan and on the final Plat all easements and shall provide all dedications, covenants, conditions or restrictions with the Supplemental Data submitted for review. Minimum interior utility easements shall be 10 feet wide centered on lot or parcel lines where feasible. A wider easement may be required if multiple utilities will be utilizing the same easement or if topography dictates otherwise. An exterior utility easement adjacent to the public right-of-way will be required if at least five feet of unimproved public right-of-way is not available.

(d) Water Courses. If a tract is traversed by a water course such as a drainage way, channel or stream, there shall be provided a storm water easement or drainage right-of-way containing the top of bank, vegetative fringe, and such further width as will be adequate for protection and maintenance purposes. Culverts or other drainage facilities shall be sized to accommodate storm and flood run-off from the entire upstream drainage area at full build out and shall be verified and approved by the City.

Discussion: There is an existing 40-foot access easement running across the subject property that was placed at the time when the adjacent development occurred. This existing 40-foot access easement was intended to serve access to tax lot 200, which contains an existing home. The applicant's proposal includes buildable lots over this existing 40-foot access easement. In discussions with the applicant's surveyor, the applicant will vacate this 40-foot access easement upon construction of the relocated access and private utilizes easement as seen in between lots 25 and 26. This new access easement between lots 25 and 26 will serve tax lot 200 with access. Staff recommend a condition of approval for the applicant to vacate the existing 40-foot access easement before final plat approval.

Recommended FINDING for approval: As discussed in this staff report, there will be a need for

access, utility, and water course/drainage easements. The inclusion of all required easements, as shown on the applicant's preliminary Sheets, where necessary, will be a condition of approval. Easements granting limited use of a property for any defined purpose, access easements, utility easements, and water courses/drainage easements all shall be shown and recorded on the final plat as with all dedications, covenants, conditions, or restrictions. Utility easements shall conform to the easement standards as listed in LDC 9.524(c). The easements shall be consistent with Lane County recording procedures, ORS 92 and the LDC. Additionally, there is an existing 40-foot access easement running through the property that was a requirement of a previous development. This 40-foot access easement will interfere with homesite development on the proposed lots. As such, the applicant shall vacate this 40-foot access easement and relocate it to the proposed 25-foot access easement between lots 25 and 26. This newly placed access easement between lots 25 and 26 is intended to provide tax lot 200 with access.

Condition of Approval #19: Prior to final plat approval, the applicant shall include all easements, dedications, covenants, conditions or restrictions along with any supplemental data for review by the City Administrator or his or her designee. Easements shall be consistent with Lane County recording requirements, ORS 92 and the LDC.

Condition of Approval #20: Prior to final plat approval, the applicant shall vacate the existing 40-foot-wide access easement that traverses through the subject property and relocate it to the proposed 25-foot-wide access easement in between lots 25 and 26. This newly placed access easement is intended to serve tax lot 200 with access.

> ***LDC 9.630 Hillside Development. The purpose of this Section is to provide standards governing development of hillside land within the City to alleviate harmful and damaging effects of on-site erosion, sedimentation, runoff, access issues and to regulate the effects of excavation and grading on hillsides.***
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> ***LDC 9.631 Scope. This Section shall apply to all areas of the City where the slope of the land is 15 percent or greater. In all areas of the City, concurrent with application for a building permit, excavation or fill permit or land division, the applicant shall provide elevation data adequate to determine slope characteristics of the property or portions thereof being developed. If the City determines that the property does have areas of 15 percent slope or greater, then the proposed development shall, in addition to other applicable City ordinances, rules and regulations, also be reviewed for compliance with the requirements of Sections 9.630 through 9.635.***
>
> ***LDC 9.632 Hillside Development Standards.***
>
> ***(a) General grading. Any grading performed within the boundaries of a hillside development shall be kept to a minimum and shall take into account the environmental characteristics of that property, including but not limited to prominent geological features, existing streambeds, drainage ways, and vegetative cover.***
>
> ***(b) Slope stability. Potential slope instability problems such as slip planes, clay layers and dome-shaped bedrock shall be identified. Mitigation measures sufficient to render these areas safe for structures and infrastructure development shall be applied.***

(c) Building sites. Building sites shall be designed to minimize the need to alter the natural grade during construction of individual buildings. Mass pad grading or continuous terracing of building sites is not allowed. Lot development plans must demonstrate that the lot is large enough to safely accommodate both the planned structure(s) and the needed cuts and/or fills.

(d) Retaining walls. Especially on cutbanks, retaining structures are preferred in lieu of larger excavations to minimize the amount of disturbed area. Retaining walls over 4 feet high shall be engineered. Smaller walls shall be constructed in conformance with the soils and geology report recommendations and the engineer's plans. Designs for retaining structures shall give consideration to aesthetics and shall use mitigations such as terracing and/or landscaping plants to reduce the structures' apparent height and mass.

(e) Cut and Fill Standards.

(1) All cut and fill slopes generally must not exceed a two (horizontal) to one (vertical) ratio. Slopes which are steeper (i.e. 1:1/2 or 1:1) may be conditionally approved by the City upon certification, by a qualified engineer that the slope will remain stable under foreseeable conditions. The certification must delineate any specific stabilization measures deemed necessary by the engineer.

(2) Cuts and fills shall be designed to avoid movement or episodic erosion during heavy rains or earthquakes, mechanical overloading of underlying soils and undercutting of adjacent areas. Fills shall be benched as required to provide a proper bond with the existing terrain.

(3) Unless proven otherwise by specific soils information to the contrary, cuts shall be presumed to be incapable of revegetation without special treatments, such as importation and retention of topsoil. Plans must be submitted for all cuts in excess of 2 feet deep, showing either a covering for the cut, such as stonework, or a revegetation plan that does not rely on the ability of the exposed subsoil to support plant growth.

(f) Revegetation. Earthwork shall be designed so that all disturbed areas will be restored to have at least 6" of topsoil. Revegetation of projects exposing soil shall be aggressively pursued so that bare ground will not be unnecessarily exposed to the weather between November 1 and May30. Construction schedules shall be drawn up to limit the period of time that soil is exposed and unprotected. The existing vegetative ground cover should not be destroyed, removed, or disturbed more than 15 days prior to grading or construction of required improvements. Soil exposed during the removal or significant disturbance of ground cover vegetation shall be built upon (i.e. covered with gravel, a slab, foundation or other construction), landscaped (i.e. seeded or planted with ground cover) or otherwise protected within 15 days of grading or other pre- development activity. Provided, however, that these restrictions do not apply during the months of June, July, August and September.

(g) Modification of Public Street Standards. Street width, grade and alignment, right-of-

way width, and sidewalks in hillside areas shall be designed to minimize changes to existing topography and provide adequate access to adjacent properties. Cuts and fills in excess of four feet deep shall be considered significant and should be avoided where feasible. Modifications to established standards, if necessary, to meet these requirements, shall be made as provided below.

(1) Street grades may exceed the maximum grade standards of the Lowell Standards for Public Improvements where topographical conditions make it impractical to meet those standards, subject to the following conditions:

(A) Driveways and intersections shall not be permitted where street grades exceed 15 percent.

(B) Street grades of over 15 percent shall not be permitted for a distance of more than 200 feet in any 600-foot-long section of street.

(C) Street grades shall not exceed 20 percent for any distance.

(2) Requirements specified in the Lowell Standards for Public Improvements for public right-of-way width, pavement width, and/or installation of sidewalk may be modified where topographical conditions make it impractical to meet those standards, subject to the following conditions:

(A) Reduction in public right-of-way width may be made if the proposed right-of-way is large enough to accommodate the street and sidewalk(s), and 5-foot public utility easement is provided on each side of the right-of-way and slope easement is provided where required.

(B) Reduction in pavement width to 21 feet may be made for access lanes with less than 250 vehicle trips per day, that are not dead-end, and that will be no parking on one side. For not more than one 200 foot section of street per block, any road may be reduced to 20 feet if the road is not dead-end, will be no parking on both sides along the narrowed portion, and if at least one parking space is provided for each lot taking driveway access from the narrowed portion; said parking shall be within 200 feet of the driveway access. On all other roadways, the City Council may allow the above described pavement width reductions only after consultation with the City Engineer and the local fire official, and upon a finding that the proposed width will provide adequate parking and emergency vehicle access. All no parking areas shall be signed, and curbs shall be painted yellow.

(C) All sidewalks shall be a minimum of 5 feet wide. All streets shall have vertical curbs adjacent to sidewalks. For short distances, street-side sidewalks may be relocated to an off-street location that will provide equivalent service, conditional upon right-of-way being available or public access easements being provided. Sidewalks may be approved for only one side of the street for access lanes with less than 250 vehicle trips per day. On all other roadways, the City Council may allow sidewalks on only one side upon a finding that a single sidewalk will provide adequate pedestrian safety.

(3) The City may require modification of street improvement construction standards for any

portion of proposed street improvements being constructed in areas of special concern identified in the Soils and Geology Report.

(h) Storm Drainage. In addition to City-wide storm drainage system development standards contained in Section 9.520, hillside storm drainage systems shall be designed to:

(1) Protect cuts, fills, roadways, retaining walls and structures from saturation, slope failure and settling.

(2) To anticipate and mitigate the rapid movement of debris into catch basins, and storm water flows bypassing catch basins.

(3) Ensure that concentrated storm water is disposed of in a controlled manner does not create significant erosion or adverse effects on downhill properties.

(i) Preservation of Trees and Existing Vegetation. Construction shall be done in a manner that avoids unnecessary disruption to vegetation and trees. Temporary protective fencing shall be established around all trees designated for protection prior to the commencement of grading or other soil disturbance. Grade changes and trenching shall not be made within 5 feet of the dripline of such trees without written concurrence from an arborist that such changes will not cause permanent damage to the tree.

Recommended FINDING for approval (for Section 9.632): Lots 23, 25, and 26 contain slopes of 15 percent greater. The applicant has submitted preliminary grading and drainages plans as seen on Sheet 3 and 4 (**Attachment C**) and a Geotech Report (see **Attachment I**). The applicant is not proposing to mass grade the lots, the applicant will only grade what is required to build the public improvements and infrastructure. Individual lot grading will occur when development occurs on each respective lot. The applicant will be required to submit final grading plans during the construction phase of the development for review and approval by the City Engineer. The standards listed in the Hillside Development section of the LDC will largely be addressed post tentative map approval, during the construction plan drawing phase of the project. The applicant will be required to submit plans that show conformance with Hillside Development standards on Lots 23, 25 and 26, consistent with the standards as listed in Section 9.632 Hillside Development Standards. All cut and fill slopes must not exceed a two (horizontal to one (vertical) ratio. All proposed cut and fill slopes will be reviewed by the City Engineer for conformance. As allowed for in the LDC, the City Engineer may approve slopes which are steeper, upon certification by a qualified engineer that the slope will remain stable under foreseeable conditions. A Revegetation plan will be required, consistent with subsection (f) of Section 9.632. The Revegetation Plan shall be submitted to the City Administrator for review and approval, the Revegetation Plan may be incorporated into the Improvement Agreement, if necessary. This will be a condition of approval.

Condition of Approval #21: Because Hillside Development Standards apply, prior to the commencement of any site preparation, grading, or fill, on lots 23, 25 or 26, the applicant shall submit specific construction plans for review and approval by the City Administrator, or his or her designee. Plans submitted shall be consistent with the Hillside Development Standards listed in LDC 9.632.

Condition of Approval #22: As required in the Hillside Development Standards for lots 23, 25 and 26, a Revegetation Plan will be required. This plan may be incorporated into the Improvement Agreement, if necessary. The Revegetation Plan shall conform to the standards as listed in Section 9.632(f).

LDC. 9.633 Submission Requirements for Land Divisions. When land division application is submitted in which all or a portion of the development contain slopes which are 15% or greater, the following additional reports and plans shall be submitted:

(a) Surveyor's Report. A scale drawing of the property prepared by a licensed surveyor, showing existing topography at two-foot contour intervals, watercourses both permanent and intermittent, and natural physical features such as rock outcroppings, springs and wetlands. Also show the location and dimensions of any existing buildings or structures on the property where the work is to be performed, the location of existing buildings or structures on land of adjacent owners that are within 100 feet of the property.

Recommended FINDING for approval: The applicant's surveyor submitted a map showing the above features, including the slope of each lot, sufficient for staff to make findings upon. **See Attachment J.** Criterion met.

(b) Soils and Geology Report. This report shall be prepared by a suitably experienced and qualified licensed engineering geologist or geotechnical engineer, and shall include the following for each proposed lot and for public right-of-way areas proposed for development which have slopes greater than 15%:

(1) Data regarding the subsurface condition of the whole site such as the nature, depth and strength of existing soils, depth to bedrock, location of soft soils, hard stratum, potential slip planes, geological weak zones, clay seams or layers, unconsolidated deposits, and previous grading activities. The report shall also address existing water tables, springs, watercourses and drainage patterns, seismic considerations, and any offsite geologic features or conditions that could impact or be impacted by onsite development. Locations of exploratory boreholes shall take into consideration the terrain and geology of the site instead of following a general grid pattern.

(2) Conclusions and recommendations regarding the stability of underlying slopes and of proposed cuts and fills, any remedial or preventative actions that are required, any limitations upon the use of the site, grading procedures, requirements for vegetation preservation and revegetation, special coverings or treatments for areas that cannot be readily revegetated, erosion control methods, drainage systems, setbacks from slopes or other geologic features, foundation and building design, and backfills.

Recommended FINDING for approval: Lots 23, 25, and 26 contain slopes of 15 percent or greater. The applicant has submitted a Geotech Report that the City Engineer will use when reviewing site specific construction plans. Criterion met.

(c) Engineer's Plans. Detailed plans shall be prepared for all proposed public

improvements by a suitably qualified licensed civil engineer. Detailed plans for private development on each parcel may also be provided and if provided, will be accepted as required building permit submittals. These plans shall be based upon the findings of the required soils and geology report, and shall include the following information:

(1) Infrastructure Plan. A scale drawing plan showing the location and approximate grade of all proposed streets, walkways and alleys, and the location of proposed easements, lots, common areas, parks, open space and other land proposed for dedication to the City. Also indicate the locations of utilities such as sewer and water lines.

(2) Grading Plan. A scale drawing grading plan of the property, showing existing and proposed finished grades at two-foot contour intervals, retaining walls or other slope stabilization measures, cuts and fills, and all other proposed changes to the natural grade. Include cross-sectional diagrams of typical cuts and fills, drawn to scale and indicating depth, extent and approximate volume, and indicating whether and to what extent there will be a net increase or loss of soil.

(3) Drainage Plan. Detailed plans and locations of all proposed surface and subsurface drainage devices, catch basins, area drains, dewatering provisions, drainage channels, dams, sediment basins, storage reservoirs, and other protective devices together with a map showing drainage areas, the complete drainage network, including outfall lines and natural drainageways which may be affected by the proposed development, and the estimated run-off of the area(s) served by the drains.

(4) Erosion Control Plan. Descriptions and/or drawings of proposed changes to soils and/or existing vegetation on the site; specific methods proposed to restore disturbed topsoil, minimize the identified potential erosion problems, and revegetate areas which will be stripped of existing vegetation; and a schedule showing when each stage of the project will be started and completed, including the total area of soil surface which is to be disturbed during each stage and the length of time soils will be left exposed.

(5) Affidavit. The authoring engineer shall include a statement that the plans are consistent with the soils and geology report required by this Section, and with the standards of Section 9.632.

Discussion: Engineer's Plans (1 through 5) will be required following tentative plat approval and shall be submitted for review and approval by the City Administrator or his or her designee, as part of the construction plan drawing process and before issue of building permits. Engineer's Plan submitted by the applicant to the City shall be in conformance with the standards and specifications as cited in LDC 9.633 (c) (1-5).

Recommended FINDING for approval: The proposal is consistent with these criteria with the condition of approval the applicant shall submit Engineer's Plan 1 through 5. for review and approval by the City Administrator or his or her designee, prior to the issuance of building permits.

Condition of Approval #23: Prior to any site preparation, grading or fill, the applicant shall submit for review and approval by the City Administrator or his or her designee, Engineer's Plan, 1

through 5 as indicated in LDC 9.633 (c) (1-5).

(d) One copy of each individual lot survey, geotechnical report and development engineering plans submitted and approved with the tentative plan shall be filed with the City at the time of submission of the final plat and one copy shall be provided to the purchaser of the individual lot.

Recommended FINDING for approval: Consistent with subsection (d) of LDC 9.632, above, upon final plat submittal to the City, the applicant shall include one copy of each individual lot survey, geotechnical report and development engineering plans. One copy shall be provided to the purchasers of lots that contain 15 percent slopes or greater. The proposal is consistent with this criterion with the condition of approval that:

Condition of Approval #24: Prior to final plat approval, the applicant shall submit final copies of each individual lot survey, geotechnical report, and development engineering plans for the City's record keeping purposes.

Condition of Approval #25: Prior to the issuance of certificate of occupancy for the proposed residential lots 23, 25 and 26, evidence shall be submitted to the City Administrator that shows compliance with subsection (d) of LDC 9.633 with the purchaser of each respective lot receiving a copy as described above.

LDC 9.236 Dedication Requirements

(a) All lots or parcels of land shown on the final Plat intended for public use shall be offered for dedication to the City at the time the Plat is filed. Exception: Those lots or parcels, or common linear open spaces which are intended for the exclusive use of the owners, their licensees, visitors, tenants or employees; and also excepted are those parcels of land reserved for public acquisition.

(b) All streets, pedestrian ways, drainage channels, open spaces, easements and other rights- of-way shown on the final Plat intended for public use shall be offered for dedication for public use at the time the final Plat is filed.

(c) All rights of access to and from streets, lots and parcels of land shown on the final Plat intended to be surrendered shall be offered for dedication at the time the final Plat is filed.

(d) The land divider shall provide and designate one-foot reserve strips across the ends of stubbed streets adjoining undivided land or along half streets adjoining undivided land. The reserve strip shall be included in the dedication granting to the City the right to control access over the reserve strip to assure the continuation or completion of the street. This reserve strip shall overlay the dedicated street right-of-way.

Recommended FINDING for approval: The proposal is consistent with these criteria with the condition of approval the applicant shall submit a final plat in consistent with the dedication requirements as indicated in LDC 9.236. Dedications requirements will be required as part of final

plat approval, and prior to final plat approval.

Condition of Approval #26: Prior to final plat approval, dedication requirements as contained in LDC 9.236 (Dedication Requirements) shall be met by the applicant.

> **LDC 9.805 Improvement Agreement.**
> ***Before City final approval of a development, site plan or land division, the developer or land divider shall file with the City an agreement between developer or land divider and the City, specifying the period within which required improvements and repairs shall be completed and providing that, if the work is not completed within the period specified, the City may complete the work and recover the full cost and expense, together with court costs and attorney fees necessary to collect said amounts from the developer or land divider. The agreement shall also provide for reimbursement of the City's cost of inspection in accordance with Section 9.801 (f).***

Discussion: The requirement, as specified in LDC 9.805, for an agreement between the developer or land divided and the City specifying the period within which required improvements and repairs will be completed, will be a condition of approval, prior to final plat approval. The agreement shall include language consistent with the City completing the work and recovering of full cost and expenses, together with court costs and attorney's fees, if necessary. Criterion met with condition of approval.

Recommended FINDING for approval: Prior to final plat approval, the applicant and or developer shall enter into an agreement, with the City of Lowell, consistent with the specifications of LDC 9.805, Improvement Agreement. Criterion met as conditioned.

Condition of Approval #27: Prior to final plat approval, the applicant and/or developer shall enter into an Improvement Agreement, with the City of Lowell, consistent with the specification of LDC 9.805.

> **LDC 9.806 Security.**
>
> ***(a) The developer or land divider shall file with the agreement, to assure full and faithful performance thereof, one of the following:***
>
> ***(1) A surety or performance bond executed by a surety company authorized to transact business in the State of Oregon in a form approved by the City Attorney; or***
>
> ***(2) A personal bond co-signed by at least one additional person together with evidence of financial responsibility and resources of those signing the bond sufficient to provide reasonable assurance of ability to proceed in accordance with the agreement to the satisfaction of the City Council: or***
>
> ***(3) A cash or negotiable security deposit.***
>
> ***(b) Such assurance of full and faithful performance shall be for a sum approved by the City as sufficient to cover the cost of the improvements and repairs, including related***

engineering and incidental expenses, and to cover the cost of City inspections and other costs.

(c) Prior to acceptance of required public improvements, the developer or land divider shall file one of the above listed assurances with the City, in an amount equal to 20% of actual construction costs, as a warranty towards defects in materials and workmanship identified for a period of no less than one year after City acceptance of the public improvements. The City may agree to a longer warranty period in lieu of the above required assurances.

Discussion: Securities in the form of a surety or performance bond, or a personal bond co-signed by at least one additional person together with evidence of financial responsibility or a cash or negotiable security deposit shall be required of the applicant / developer to ensure public improvements are performing adequately for a period of not less than one year after city acceptance. This will be a condition of approval.

Recommended FINDING for approval: Securities in the form(s) listed above in LDC 9.806 shall be required to assure performance of public improvements installed by the applicant. Prior to final plat approval, the applicant shall provide the City Administrator evidence showing that the requirements as listed in LDC 9.806 are satisfied and an agreement has been reached between the applicant and the City. Criterion met as conditioned.

Condition of Approval #28: Prior to final plat approval, the applicant shall provide the City Administrator evidence showing that the requirements as listed in LDC 9.806 are satisfied and an security agreement has been reached between the applicant and the City.

LDC 9.807 Noncompliance Previsions.

(a) If the developer or land divider fails to carry out provisions of the agreement, the City shall provide written notice to the developer or land divider and the surety specifying the details of noncompliance. Unless the City allows more time for compliance because of circumstances beyond the developer or land divider's control, within 30 days after receiving the notice, the developer or land divider or the surety shall commence compliance and proceed diligently to comply with the agreement.

(b) If the developer or land divider or the surety does not begin compliance within the 30 days or the additional time allowed by the City, or compliance is not completed within the time specified in granting the land division approval, the City may take the following action:

(1) Notify the developer or land divider and the surety of the developer or land divider's failure to perform as required by this Code and the agreement.

(2) Demand payment from the developer or land divider or the developer or land divider's surety for the unfulfilled obligation.

(3) Enter upon the site and carry out the obligation in accordance with the provisions of the approval and agreement.

(4) If the security for the obligation is a performance bond, notify the surety that reimbursement for City expenses for fulfillment of the obligation is due and payable to the City. If the security is a deposit of cash or other assets, appropriate as much of the deposit as is necessary to recoup City expenses.

(5) Void all approvals granted in reliance on the agreement.

(c) If the bond or other required security is not sufficient to compensate the City for expenses incurred to fulfill the obligation, the amount due to the City for the obligation is a lien in favor of the City upon the entire contiguous real property of the owner of the land subject to the obligation.

(d) The lien attaches upon the filing with the City Recorder of notice of the claim for the amount due for the fulfillment of the obligation. The notice shall demand the amount due, allege the insufficiency of the bond or other security to compensate the City fully for the expense of the fulfillment of the obligation, and allege the developer or land divider's failure to fulfill the required obligation.

(e) The lien may be foreclosed in the manner prescribed by law for foreclosing other liens on real property.

(f) The remedies set forth for non-compliance are cumulative. In addition to the remedies set forth above, non-compliance by the developer or his surety with any term of a performance guarantee shall entitle the City to pursue any civil remedy permitted by law.

Recommended FINDING for Approval: In the event the developer or land divider cannot fulfill its obligation, as provided for in LDC 9.807, the City has the authority the commence the securities provision of LDC 9.806 or enter upon the site and carry out the obligation in accordance with provision of the approval and agreement. In such events, the City will work closely with the City Attorney to initiate proceedings, If necessary. Criterion met as discussed.

LDC 9.231 Submission Requirements. Within 18 months after approval of the Tentative Plan, the land divider shall cause the land division to be surveyed and a Plat prepared and submitted to the City for approval. This time period may be extended for up to one year upon the approval of the Deciding Authority. The Plat shall be in conformance with the approved tentative Plan. All public improvements required by the tentative plan approval must be completed and accepted prior to the City's approval of the Plat, unless the applicant provides security to assure public improvements will be completed. If the land divider fails to submit the Plat for approval within 18 months or as extended, he must reapply for approval and resubmit the Tentative Plan with any revision necessary to comply with changed conditions.

Recommended FINDING for Approval: Within 18 months after approval of the Tentative Plan, the land divider shall cause the land division to be surveyed and a plat prepared and submitted to the City for approval. This time period may be extended for up to one (1) year upon the approval of

the Deciding Authority, in the case of a subdivision, the Deciding Authority shall be City Council. All public improvements required by the tentative plan approval must be completed and accepted prior to the City's approval of the final plat. If the land divider fails to submit the final plat for approval within 18 months or as extended, they must reapply for approval and resubmit the tentative plan with any revision necessary to comply with and changed conditions. The tentative plat approval will expire 18 months after final City tentative approval or as extended, by the Deciding Authority. Criterion met as discussed.

5. Consistency with applicable Comprehensive Plan policies.

Housing Need Policy (c) 4. The City shall insure that residential development is supported by the timely and efficient extension of public facilities and services.

Recommended FIDNING for approval: The timely and efficient extension of public facilities and services can readily be supplied. The proposed subdivision is the next logical extension of the existing subdivision immediately to the west. The two dead-ends of Wetleau Drive can be further extended for future development, as called for in the Lowell Master Road Plan and Map. The proposal is consistent with the timely and efficient extension of public facilities and services.

Housing Need Policy (c) 5. The City shall continue to support increased residential development while also encouraging businesses and commercial activities that support residential community needs.

Recommended FINDING for approval: The City is continuing to support residential growth because the addition of a 17-lot single family residential home development has the ability to attract more people that wish to live and work in Lowell, thereby, spurring the chance for increased business and commercial activity. The proposal is consistent with Housing Need Policy (c) 5.

Development Constraints (c) (1) Topography and Slope.

Recommended FINDING for approval: The Lowell Comprehensive Plan lists topography and slope as a development constraint. As such, Lowell adopted specific Hillside Development Standards that developers shall adhere to in the event development occurs on slopes of 15 percent or greater. As contained in this staff report and associated findings and conditions of approval. Hillside Development standards apply and will be enforced by the City. The proposal as conditioned is consistent with addressing the development constraints of topography and slope.

Development Constraints (c) (2) Soils & Geology/Landslide Hazards.

Recommended FINDING for approval: The City has no comprehensive geological study related to the potential for landslide hazards as a result of additional development. As such the City is unable to quantify the extended of landslide hazard development constraints. However, as included in the Hillside Development Standards of the LDC and the reports required for development in areas that quantify as hillside development, the City does require a Soils and Geology Report, which has been completed by the applicant.

6. Recommendation

As discussed, and conditioned in this staff report, staff recommend the Planning Commission issue a recommendation for **APPROVAL** onto City Council for final action for a tentative plat for a 16-lot single family home subdivision.

7. Conditions of Approval

Staff have included a running list of all condition approval applicable to this proposal:

Condition of Approval #1: A final grading plan shall be submitted to the City Engineer for review and approval, prior to earth-moving activities. The grading plan shall conform to the grading standards are listed in Section 9.527 GRADING and Lowell Ordinance 227, Section 2, Excavation and Grading Building Code.

Condition of Approval #2: Prior to the commencement of any earth-moving activities on the subject property, the applicant shall receive DSL concurrence on the wetland delineation report and comply with any requirements of DSL in terms of obtaining a fill-removal permit or appropriate mitigation.

Condition of Approval #3: The applicant shall submit final drainage plans/details for review and approval by the City Engineer, prior to the commencement of construction of public improvement facilities. The final drainage plan shall be substantially the same as the drainage plan approved with the approval of the tentative subdivision plan. Additional off–site culverts and inlets made necessary by the final drainage plan shall be paid for by the applicant.

Conditions of Approval #4: Applicant shall install fire hydrant at or near the western edge of the northerly extension of Wetleau Drive. Details of design and placement to be worked out amongst LRFPD, City Engineer, and the applicant's engineering team, during the construction drawing phase. Prior to final plat approval, evidence of the installation of the fire hydrant shall be shown at or near the western edge of the northerly extension of Wetleau Drive, or as approved by LRFPD and the City Engineer. The need for fire hydrant is also outlined in the Resolution List.

Condition of Approval #5: Prior to the issuance of building permits, the applicant/developer shall construct sidewalks, including curb and gutter along both sides of the extension of 4th Street and the northly and southerly extensions of Wetleau Drive. Sidewalks shall be inspected by the City of Lowell before acceptance. Sidewalks shall be constructed to a width of 5-feet and in accordance with Lowell Standards Documents for engineering and construction. The 21-foot-wide extension of 4th Street, to the south of Lot 26, shall have sidewalks placed on the northern side of the street. The sidewalks for the extension of 4th Street, on the northerly side will be deferred to the time of home construction.

Condition of Approval #6: Lots 16 and 17 share a common access and utility easement which has a width of 20-feet, of the 20-feet, 16-feet shall be paved up until at least the crest of the panhandle.

Condition of Approval #7: Lots 25 and 26 are proposed to have a common access and utility easement of 25-feet that will serve the existing home/structure located on tax lot 100, as well as driveway access for lots 25 and 26. This access and utility easement shall be paved to a width of at least 16-feet.

Condition of Approval #8: Applicant shall submit final street improvement plans to the City Engineer, for review and approval, before street construction commences. Prior to final plat approval and acceptance of urban public street improvements, the applicant shall install urban public street improvements to City standards. Street public improvement plans shall include plans for the improvement of the 50-feet of preserved ROW, located south of lot 26, for future access to tax lot 200. Public street improvements will be inspected by Lowell Public Works or the City Engineer for compliance with Lowell Standards.

Condition of Approval #9: Prior to final plat approval, the applicant shall submit plans to the City Administrator or his or her designee, showing slope easements as required, where topographical conditions necessitate cuts or fills for proper grading of streets, additional right-of-way or slope easements. If it is determined, between the applicant's engineer and the City Engineer, during the construction drawing phase, that no slope easements are necessary or non-existent, then the final plat shall contain a plat note stating such.

Condition of Approval #10: A "No Parking sign shall be installed at the ends of the two turnarounds located at the northly and southerly extensions of Wetleau Drive.

Condition of Approval #11: Prior to final plat approval, applicant shall submit evidence to the City Administrator or his or her designee, that the proposal complies with the street name signs standards as listed in the LDC.

Condition of Approval #12: Prior to final plat approval, applicant shall submit evidence to the City Administrator of his or her designee, that the proposal complies with streetlights standards as listed in the LDC.

Condition of Approval #13: Prior to final plat approval, the applicant shall provide evidence, to the City Administrator or his or her designee, that the proposed mailbox structure or provision(s) for handling mail to the proposed lots, has been approved by the local Post Office having jurisdiction and shall be noted on the plan as a plat note.

Condition of Approval #14: Prior to final plat approval, plans for compliance with Clear Vision Areas shall be presented to the City Administrator or his or her designee and reviewed and verified for compliance with the Clear Vision Areas standards as listed in the LDC 9.517(r).

Condition of Approval #15: Prior to final plat approval, natural drainageways shall be indicated on the final plat and a 15-foot setback shall be required from the centerline of any significant drainageway. Precise location of natural drainageways shall be determined by the applicant's engineers and the City Engineer and drainage easements shall be required on any

lots for which water drains onto or across. If no natural drainageways are to be utilized as part of the proposed subdivision, the City will consider this condition satisfied for final plat purposes with confirmation from the City Engineer.

Condition of Approval #16: Prior to final plat approval, drainage easements of sufficient widths so as to ensure adequate conveyance and maintenance shall be shown on final plat. Specific identification of which lots will require drainage easements will be determined by the applicant's engineering staff and the City Engineer. Drainage easements shall be applied to any and all lots on which water drains onto or across.

Condition of Approval #17: Prior to the commencement of any site preparation, clearing, grading, or fill, the applicant shall obtain an approved NPDES Permit. Applicant shall submit evidence of an approved NPDES Permit to the City Administrator, or his or her designee, prior to any site preparation, grading, or fill.

Condition of Approval #18: The utilities plan as seen on Sheet 2 is preliminary and for tentative map approval. A final utilities plan, consistent with LDC 9.521, shall be submitted for review and approval by the City Engineer prior to commencement of any construction activities with respect to water, sewer and utilities.

Condition of Approval #19: Prior to final plat approval, the applicant shall include all easements, dedications, covenants, conditions or restrictions along with any supplemental data for review by the City Administrator or his or her designee. Easements shall be consistent with Lane County recording requirements, ORS 92 and the LDC.

Condition of Approval #20: Prior to final plat approval, the applicant shall vacate the existing 40-foot-wide access easement that traverses through the subject property and relocate it to the proposed 25-foot-wide access easement in between lots 25 and 26. This newly placed access easement is intended to serve tax lot 200 with access.

Condition of Approval #21: Because Hillside Development Standards apply, prior to the commencement of any site preparation, grading, or fill, on lots 23, 25 or 26, the applicant shall submit specific construction plans for review and approval by the City Administrator, or his or her designee. Plans submitted shall be consistent with the Hillside Development Standards listed in LDC 9.632.

Condition of Approval #22: As required in the Hillside Development Standards for lots 23, 25 and 26, a Revegetation Plan will be required. This plan may be incorporated into the Improvement Agreement, if necessary. The Revegetation Plan shall conform to the standards as listed in Section 9.632(f).

Condition of Approval #23: Prior to any site preparation, grading or fill, the applicant shall submit for review and approval by the City Administrator or his or her designee, Engineer's Plan, 1 through 5 as indicated in LDC 9.633 (c) (1-5).

Condition of Approval #24: Prior to final plat approval, the applicant shall submit final

copies of each individual lot survey, geotechnical report, and development engineering plans for the City's record keeping purposes.

Condition of Approval #25: Prior to the issuance of certificate of occupancy for the proposed residential lots 23, 25 and 26, evidence shall be submitted to the City Administrator that shows compliance with subsection (d) of LDC 9.633 with the purchaser of each respective lot receiving a copy as described above.

Condition of Approval #26: Prior to final plat approval, dedication requirements as contained in LDC 9.236 (Dedication Requirements) shall be met by the applicant.

Condition of Approval #27: Prior to final plat approval, the applicant and/or developer shall enter into an Improvement Agreement, with the City of Lowell, consistent with the specification of LDC 9.805.

Condition of Approval #28: Prior to final plat approval, the applicant shall provide the City Administrator evidence showing that the requirements as listed in LDC 9.806 are satisfied and an security agreement has been reached between the applicant and the City.

Condition of Approval #298: In the process of completeness review and further discussions with the applicant, there are several items that remain to be reviewed and approved by the City Engineer. Between the City, City Engineer and the applicant it was determined the items could be discussed, reviewed and approved during the construction drawing phase, as they relate to more engineering specifics. The City Engineer has indicated to staff they have no direct concerns with the proposed subdivision going through the approval process and receiving tentative approval.

The City Engineer's comments that need to be addressed, prior to the commencement of construction activities or earth-moving activities are contained in **Attachment H** and dated July 10, 2019, and December 29, 2020. For purposes of final plat approval, the City will consider this condition satisfied by written communication from the City Engineer that all engineering related items have been sufficiently addressed by the applicant's engineering team. Where engineering standards are included as approval criteria for a subdivision, staff have adequately stated and addressed those standards and found the standards to be feasible for the applicant to meet on a preliminary basis and thus can delegate final review and approval to the City Engineer.

Condition of Approval #3029: Prior to final plat approval, applicant shall install electrical conduits for three phase power from the nearest three phase power source as directed by Lane Electric Co-operative and the City Engineer, to a location on the common boundary of the southernmost portion of Wetleau Drive and Map 19-01-11, Tax Lot 403. If such conduit is not located within the relocated 4th Street right-of-way, a utility easement will be provided and recorded on the final plat. The City of Lowell, as a qualifying public improvement, shall reimburse the applicant or offsets the costs, with a reduction or wavier of SDC fees or other agreement reached between the City and the applicant, associated with the installation three phase power. The details of such agreement and the financial terms shall be spelled out in the development agreement and signed by the applicant and the City Administrator.

Condition of Approval #31: The Resolution List, submitted by the applicant's representative, Dated January 6, 2021, is a list of issues the applicant agrees to address. The issues shall be addressed and implemented by the applicant, prior to final plat approval. **The issues contained in the Resolution List are subject to review, modification, and approval of the City Engineer.** The three-phase power condition listed in the Resolution List is already incorporated into these findings as Condition of Approval #30, which shall be the operating condition on this matter.

8. Informational items

- Appropriate permits to perform work within City of Lowell rights-of-way will have to be obtained by the property owner/applicant/contractor before any work in public rights-of-way can be undertaken. For questions related to performing work within City rights of way, please contact the Lowell Public Works department at 541-937-2776.

9. Attachments

Attachment A: Initial Application and Supplemental Materials

Attachment B: Tentative Subdivision Map, Dated December 3, 2020

Attachment C: Old Sheets 1 through 12, Dated June 5, 2019, includes drainage study

Attachment D: Initial DSL Wetland Response

Attachment E: Previous Comment Regarding Turnarounds

Attachment F: Previous Comment Regarding Fire Standards for Turnarounds

Attachment G: Timeline Extensions Granted to the City

Attachment H: City Engineer's Comments That Need to be Addressed, Dated July 10, 2019 and December 28, 2020 and general comments dated September 14, 2020.

Attachment I: Applicant's GeoTech Report

Attachment J: Map Showing Slopes

Attachment K: Referral Comments from Lane County and LRFPD

Attachment M: Public Comments Received

Attachment O: Wetland Delineation Report

Attachment P: Applicant's Engineer's addressing Mia Nelson Comments and Steep Slope Letter and Re-aligned street map, submitted on November 4, 2020

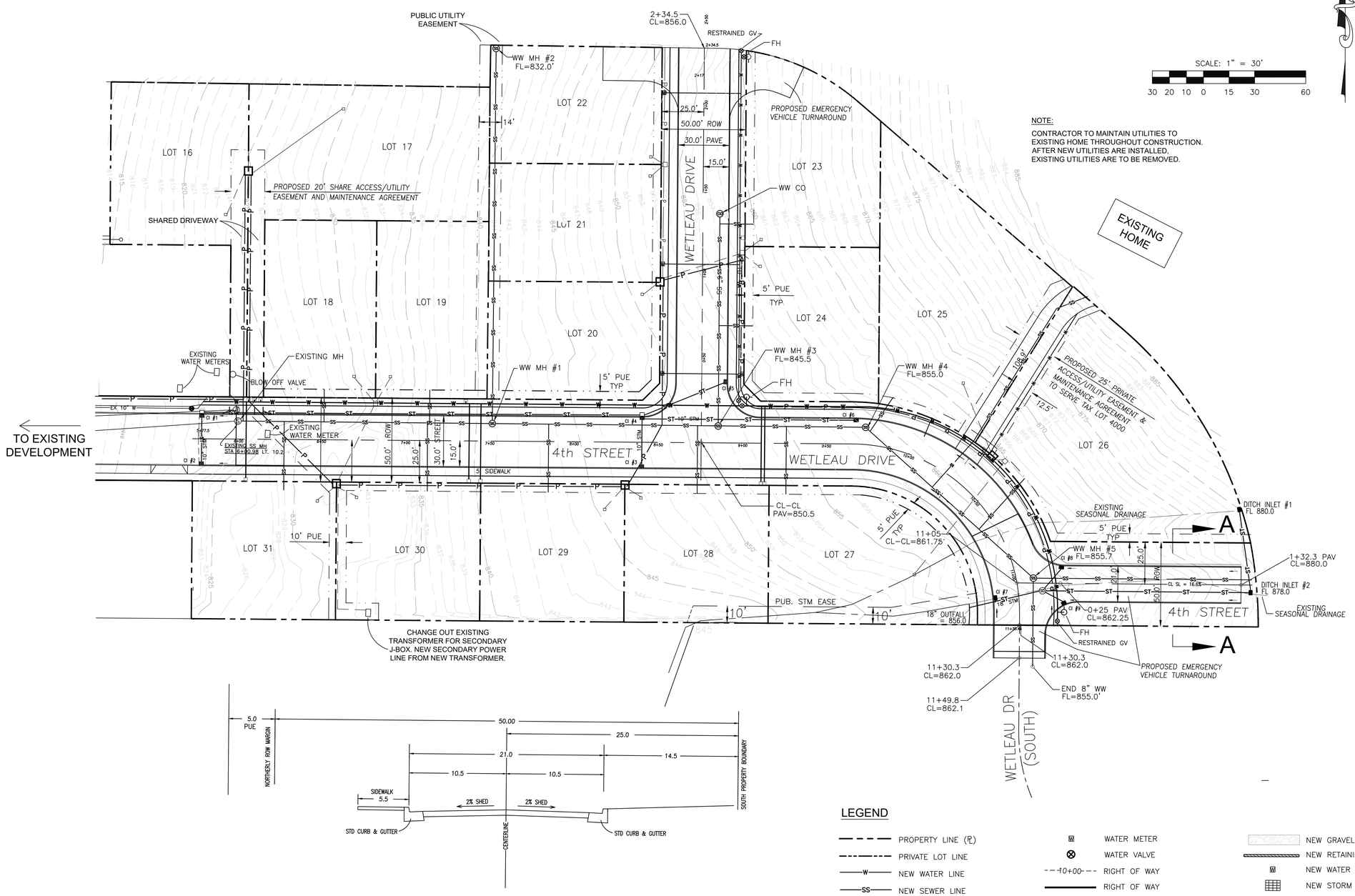
Attachment Q: Utility Plan – Sheet 2, Dated December 28, 2020

Attachment R: Revised Utility Plan, Dated January 20, 2021

Attachment S: Resolution List, Submitted by Applicant's Representative on January 6, 2021

ATTACHMENT R

TENTATIVE UTILITIES PLAN



TYPICAL SECTION **A - A**
4TH (EAST OF WETLEAU)
NTS

LEGEND

- PROPERTY LINE (℄)
- PRIVATE LOT LINE
- NEW WATER LINE
- NEW SEWER LINE
- NEW STORM LINE
- NEW POWER VAULT
- PRIMARY POWER CONDUIT
- SECONDARY POWER CONDUIT
- EXISTING ELECTRIC METER
- JUNCTION BOX
- WATER METER
- WATER VALVE
- 10+00 RIGHT OF WAY
- RIGHT OF WAY
- NEW SANITARY CLEANOUT
- NEW SANITARY MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING STORM
- EXISTING WATER
- NEW GRAVEL
- NEW RETAINING WALL
- NEW WATER METER
- NEW STORM DRAIN INLET
- EXISTING WATER VALVE
- EXISTING CATCH BASIN
- NEW MINOR CONTOUR
- NEW MAJOR CONTOUR
- 47 SPACE NUMBER

Boeger & Associates, LLC
Civil and Environmental Engineering
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1911 S. Bertelsen Road
P.O. Box 21623
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REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 19, 1985
DENNIS J. BOEGER
EXPIRES: 12/31/2021

SUNSET HILLS

RESIDENTIAL SUBDIVISION

ASSESSORS MAP 19-01-14-21, Tax Lot 5000

Developer
Matthew Bahen
Bahen Investments
541-513-7623
speedyiv@gmail.com

W.O. No.	314
Design M.	KAISER
Drawn Z.	BOEGER
Check D.	BOEGER
Date	1/20/2021
Dwg 314	SUNSET HILLS

Sheet 2 of 2

REVISIONS

No.	Description/Date	By

ATTACHMENT S

January 6, 2021

To: Lowell Planning Commission

From: Mike Reeder, Attorney for Bahen Investment Group, LCC Investments (Applicant)
Mia Nelson (Participant & neighboring property owner)

Re: Sunset Hills joint statement & proposal for resolution

Below are the issues that were not resolved via the most recent utility plan revision.

Applicant agrees to address these issues as described below, via submission of a revised utility plan while the record remains open.

Mia Nelson agrees to support the proposal if these issues are so resolved.

STREETS

1. Southern Wetleau Drive centerline finished grade – Applicant will provide a revised centerline profile to confirm that the centerline grade is rising to the south at 0.5% slope and ending at 862.0 to 862.5 feet elevation at the property line, or an alternate slope and grade as agreed to by the parties.

2. 4th Street extension – Applicant will improve this section to the eastern subdivision boundary with 21' wide pavement, curbs and sidewalks. Sidewalks will be on the north side only, and will be deferred to the time of home construction. Street width reduction to 21' with sidewalks on only one side is per LDC 9.632(g)(2), and is necessary to mitigate steep slope effects.

SANITARY SEWER

1. Rear-line sewer behind Lots 20-22 – This was formerly an 8" main line but the location was not accessible to the city and so was rejected. It is now shown as two individual 4" lines for Lot 21 and Lot 22. If this is done, the three future lots to the north will have to use individual sewage pumps, since there's a steep gully to the north that would prevent sewering those from the other direction. The parties will work with the city engineer to determine the best course of action: either a) an extendible 8" main line that is located to be accessible to the city, or b) individual 4" lines for Lot 21 and Lot 22, and the planned use of sewage pumps for the three future lots to the north.

2. South Wetleau Drive extension – Applicant will lower the invert grade at the property line to be no higher than 855.0 feet elevation.

3. 4th Street extension – Applicant will extend an 8" sewer main east up the 4th Street stub to the eastern subdivision boundary.

WATER

1. North & South Wetleau Drive extensions – Applicant will confirm that water lines will end in restrained 10" gate valves to permit future extension.

2. Fire hydrants – Applicant will add two hydrants - one at each end of Wetleau Drive.

E, T & TV

1. North & South Wetleau extensions – Applicant will extend conduits for power, phone and TV to the subdivision boundaries, to allow future extension.

2. 4th Street extension - Applicant will extend conduits for power, phone and TV up the 4th Street stub, up to the eastern subdivision boundary, to allow future extension.

3. Three phase conduits - Applicant will bring three-phase conduits to the southern boundary of Wetleau Drive to enable the future high level water booster pump station to be built, and will accept this condition of approval ("$X,000" cost reimbursement to be determined by the city):

> Condition of approval: Prior to final plat approval, Applicant shall install electrical conduits for three phase power from the nearest available three phase power source as directed by Lane Electric Co-operative, to a location on the common boundary of the southernmost portion of Wetleau Drive and Map 19-01-11, Taxlot 403. If such conduit is not located within the relocated 4th Street right-of-way, a utility easement will be provided and recorded with the final plat. As a qualifying public improvement under Ordinance 234, the City will reimburse the applicant in an amount not to exceed $X,000 from retained Water System SDC fees, within 30 days of the final plat approval or installation, inspection and acceptance of the conduit by Lane Electric, whichever comes later.

STORM

1. 4th Street extension – Applicant will extend a 12" storm main up the 4th Street stub to the eastern boundary, unless the parties, in coordination with the city engineer, develop an alternate road alignment that permits the natural drainageway to be retained and used for storm drainage.

Agenda Item Sheet

City of Lowell Planning Commission

Type of item:	Site Plan Review

Item title/recommended action:

Motion to APPROVE FILE NO. LU 2020-01 "Tristan Ferguson Site Review Application" based on the findings, conclusions and conditions as contained in the Staff Report, presented to the Planning Commission on February 3, 2021.

Justification or background:

See attached "Staff Report" dated February 3, 2021.

Attachments:

Attachments A through M

Meeting date:	02/03/2021

CITY OF Lowell

Staff Report and Findings of Fact
Site Plan Review Application,
Mr. Tristan Ferguson Site Review LU 2020 01
February 3, 2021

1. **PROPOSAL.** The Planning Commission is being asked to review and render a decision on an application for site plan review and approval for the development of a new private residence, concrete parking pad, gravel driveway with fish passage culverts and associated utilities.

   The application was submitted by the applicant's representative, Mr. Chad Morris of Branch Engineering. The proposed new improvements on the subject property are intended for Mr. Ferguson's private residence and will include a total enclosed living area of 1,440 square feet with a total garage square footage of 2,304. The residence will be placed on top of the proposed garage. The subject property does contain wetlands and the applicant has obtained a DSL fill/removal permit (**Permit # 62767-GP**) and 401 Water Quality Certification (WQC) Approval (**Permit # 2020-284, Ferguson Lot 2301**) (**see Attachment A**). The subject property does not have an address assigned yet but is located on Assessor's Map 19-01-14-22-02301 and contains 1.37 acres.

2. **APPROVAL CRITERIA.** Lowell Development Code (LDC) Section 9.204 lays out which items are required as part of an application for site plan review request. The applicant has submitted a site plan review application. A site plan review requires a "limited land use review" by the Planning Commission, and LDC, Section 9.250 contains the decision criteria the Planning Commission shall consider in making their decision for approval or denial. Other relevant criteria and sections of the LDC to this application are: Section 9.516 Access, Section 9.517 Streets, Section 9.518 Sidewalks, Section 9.520 Storm Drainage and Section 9.610 Wetland Development Standards.

3. **REFERRAL COMMENTS RECEIVED.**
   Staff received referral comment from the City Engineer (**Attachment B**). As a result of the City Engineer's comments, the applicant revised their narrative and site plan. The applicant's revisions satisfactorily addressed the issues raised by the City Engineer.

4. **STAFF REVIEW OF SITE PLAN SUBMISSION CRITERIA LDC 9.204**
   Staff have only provided the relevant sections of the application site plan as they pertain to the proposal.

   (n) Street dedication and improvements.

   FINDING: The applicant is aware of the need for public improvements with the extension of a public water line, electrical, urban street improvements, sidewalk, curb and gutter. The urban street improvements, including half-street paving to centerline, sidewalk, curb and gutter will be deferred and the applicant will be required to enter into an irrevocable waiver of remonstrance for a future assessment for these improvements. The waterline will be extending

partially along the property's frontage. Full extension along the frontage will also be included in the irrevocable wavier of remonstrance. These improvements will be made, at the applicant's expense. The **LDC Section 9.521(c)** Water, requires water line extensions must be extended along the full length of the property's frontage along the right-of-way to a point identified by the City Administrator as necessary to accommodate likely system expansion.

North Damon Street is only partially improved with pavement. Starting at the point where the subject property begins, the pavement on North Damon Street ends. The applicant is proposing a gravel driveway and not to improve North Damon Street. The City will require the applicant sign an irrevocable waiver of remonstrance for future assessment to street improvements on North Damon. Staff will address the proposed gravel driveway later on in this staff report. Criterion met.

(o) Special site features including existing and proposed grades and trees, and plantings to be preserved and removed.

FINDING: The subject property does contain wetlands and an identified water course. The travel lane (driveway) to access the homesite will have a culvert built over the water course. The applicant has an approved DSL fill/removal permit and Section 410 Water Quality Certification (**see Attachment A**). On Sheet L1.0, the applicant lists a planting schedule that will involve hydroseeding one-half of the seed mix followed by broadcast seeding the remaining seed. Criterion met.

(p) Water systems, drainage systems, sewage disposal systems and utilities.

(q) Drainage ways, water courses, flood plain and wetlands.

FINDING: Staff has reviewed the Local Wetlands Inventory (LWI) map for Lowell. The map indicates mapped wetland and waterways on the subject property (see **Attachment C**). The applicant's civil engineer has submitted a stormwater management plan and drainage study. The applicant had previously worked with a wetland ecologist and has obtained an approved DSL wetland permit to work within state wetlands. See **Attachment A** for DSL/WQC (Water Quality Certification) permits. Those wetlands to be impacted by the proposed project will be mitigated. The subject property can connect to city water and sewer but will require the extension of said lines. Criterion met.

(u) Specifications of the type and extent of emissions, potential hazards or nuisance characteristics generated by the proposed use. The applicant shall accurately specific the extent of emissions and nuisance characteristics relative to the proposed use. Misrepresentation or omission of required data shall be grounds for denial or termination of a Certificate of Occupancy.

Uses which possess nuisance characteristic or those potentially detrimental to the public health, safety and general welfare of the community including, but not limited to; noise, water quality, vibration, smoke, odor, fumes, dust, heat, glare or electromagnetic interference, may require additional safe guards or conditions of use as required by the

Planning Commission or City Council.

All uses shall meet all applicable standards and regulations of the Oregon State Board of Health, the Oregon Department of Environmental Quality, and any other public agency having appropriate regulatory jurisdiction. City approval of a land use application shall be conditional upon evidence submitted to the City indicating that the proposed activity has been approved by all appropriate regulatory agencies.

FINDING: The applicant states the proposed structure is not expected to generate any nuisance characteristics as identified in LDC 9.204(u). Staff do not see any potential nuisance characteristics involved with the proposal. Criterion met.

5. STAFF REVIEW OF SITE PLAN REVIEW CRITERIA LDC 9.250

(b) Decision Criteria. After an examination of the Site and prior to approval, the Planning Commission must make the following findings:

(1) That the proposed development complies with the Zoning District standards.

FINDING: To make an affirmative finding for the above criterion, staff turn to the standards of the R-1 zone, which is the underlying zoning designation of the subject property. In the R-1 zone, a single-family dwelling residence is a permitted use. The minimum lot area for lots in the R-1 zone is 7,000 square feet, the subject property greatly exceeds this at 59,000 square feet, with a development area of 13,068 square feet. The subject property exceeds the minimum lot width of 60-feet and lot depth of 80-feet. The proposed home is 20-feet in height, which is under the 30-foot maximum allowed. All setbacks are maintained, as the homesite is located quite a way into the property. The interior side yard setback is at 7.5-feet. As such, Planning Commission should find the basic standards are met for the underlying Zoning District. Criterion met.

(2) That the proposed development complies with applicable provisions of city codes and ordinances.

FINDING: To answer this criterion staff need to look to other relevant sections of the LDC, particularly, water, streets and wetland standards. The City Engineer has reviewed the preliminary plans and his concerns have been addressed by the applicant's engineering team. Appropriate building permits and approval from other authorities or jurisdictions will still have to be obtained by the applicant, but the applicant does posses a DSL fill/removal permit and QWC.

Staff again turn to **Section 9.521 Water**. All water line extensions and required fire hydrants, and related appurtenances shall be installed and paid for by the developer or applicant. Additionally, water distribution lines must be extended along the full length of the property's frontage along the right-of-way or to a point identified by the City Administrator. Based on the applicant's Site Plan, Sheet 2.0 (**Attachment D**), the water main extends from the southeastern portion of the property up along the frontage to about 40-feet past the centerline of the

driveway access point. The City would be amendable to a condition that requires full extension of the water line along the property's frontage in the form of a waiver of non-remonstrance for when the rest of the area develops, or the City determines it wants to complete those improvements at a sooner time. Absent a condition requiring the further extension of the water line via an irrevocable waiver of remonstrance, the City could not be able to find **Section 9.521 Water** met because the water line is not extending the full frontage of the property.

Next, staff turn to the standard for **sewer service in Section 9.522**. Staff have confirmed with the City that a public sewer line runs along the entire eastern side of Damon Street, so tapping into the existing sewer line and extending it to the homesite should not be a problem. Since the sewer line is already extended along the entire eastern side of Damon Street, no further extension is required of the applicant other than what's required to serve the actual homesite.

Another provision that must be addressed in order to find the above provision met are the standards for development that occurs in a known wetland area. The wetland development standards are contained in **Section 9.610 Wetland Development.** Development within wetlands is prohibited unless replacement or enhancement mitigation is accepted by the regulator agencies, including the Oregon Department of State Lands (DSL) and the US Army Corps of Engineers (Corps). As seen in **Attachment A**, the applicant has been working with DSL and Corps and has received the appropriate permits for the proposed project. Staff would like to note however, that the applicant shall abide by the conditions set forth in those respective permits.

Lastly, another provision which must be addressed is that of street improvements. As stated earlier, the portion of North Damon Street that abuts the subject property is presently unimproved and consists of gravel. **Streets are addressed in Section 9.517** of the LDC. Specifically, subsection (a) requires urban public street improvements including curbs, gutters and storm drainage are required for all land divisions and property development in Lowell. The proposal is not a land division but is the development of a parcel of property. The above referenced provision further outlines that urban street improvements may be deferred by the City if there is not existing sidewalk or storm drain systems in place to which connection can be made, conditional upon the responsible party agreeing to an irrevocable waiver of remonstrance to a future assessment at the time of construction of a sidewalk which is otherwise to be constructed.

As we know, this portion of North Damon does not contain sidewalks nor any urban street improvements. So, the City would be agreeable to making an irrevocable waiver of remonstrance to a future assessment a condition as part of this development. The improvements required will be half-street paving to centerline, curb, gutter, sidewalk and storm drainage.

Related to street improvements, is the fact that the applicant is proposing to use a gravel driveway to obtain access onto the subject property. Traditionally, this is prohibited as code **Section 9.516(a)** states that every property shall abut a street for a minimum of 16-feet, of which 12-foot must be paved. In the applicant's present case, the gravel driveway would abut

the unimproved North Damon Street. However, the code (in subsection b 2) does allow for an exception to allow the development provided that the owner enter an irrevocable waiver of remonstrance to assess the costs to the associated with street improvements at a later time. The requirements for the above discussed public improvements has been appropriately conditioned in this staff report and findings and will be discussed further below. Criterion met as conditioned and discussed.

(3) That the proposed development will not cause negative impacts to traffic flow or to pedestrian and vehicular safety and future street rights-of-way are protected.

FINDING: The proposed development will not cause negative impacts to traffic flow or to pedestrian and vehicular safety and future street rights-of-way are protected because the subject property abuts city right of way that is presently unimproved and does not contain paving, curbs or sidewalks, this will generally result in little-to-no pedestrian and vehicular traffic.

Additionally, North Damon Street dead-ends and there are no other homes located past the subject property. The extension of 4th Street (to extend further to the west) is preserved but the City would likely have to acquire private property to punch 4th Street through and connect it with North Damon. It's likely and plausible this will happen in the future and is contemplated in the City's Master Road. Once North Damon does fully improve, sidewalks will be added, consistent with LDC, for pedestrian safety. For the reasons expressed, staff are able to find this criterion met.

(4) That proposed signs or lighting will not, by size, location or color, interfere with traffic, limit visibility or impact on adjacent properties.

FINDING: No signs or lighting are proposed as part of the application. Criterion not applicable.

(5) That proposed utility connections are available, have the capacity to serve the proposed development and can be extended in the future to accommodate future growth beyond the proposed land division.

FINDING: As discussed earlier in this staff report, utility connections are nearby and can be extended to serve the proposed homesite. However, the waterline currently terminates near the southeastern corner of the property. The applicant is proposing to extend this water line up to and just past the point of driveway access. The LDC requires water line extensions be extended along the full frontage of a subject property. This will be required in the form of an irrevocable waiver of remonstrance to a future assessment. The waterline will be required to be extended in the future, when the City decides, or further property development spurs the extension. **The applicant cannot opt out of participating financially in this future assessment and the irrevocable waiver of remonstrance will be recorded with the property.** The sewer line is currently located in North Damon ROW and extends the entire length of the street. Criterion

met.

(6) That the proposed development will not cause negative impacts to existing or proposed drainage ways including flow disruptions, flooding, contamination or erosion.

FINDING: The subject property does contain mapped wetlands and significant mapped waterways, as seen on the Local Wetland Inventory Map (see **Attachment C**). The subject property has a FEMA flood designation of Zone X, meaning it's an area of minimal flood hazard (see **Attachment E**). The applicant does possess an approved DSL permit to work in the wetland areas and those permits have specific conditions attached to them that outline the work that is permitted. The applicant will be placing a culvert crossing over the mapped waterway. The culvert will be designed for fish passage and allow for any fish migration upstream. Criterion met.

(7) That the proposed development will not cause negative impacts, potential hazards or nuisance characteristics as identified in Section 2.140, Item 21 of the Application Site Plan consistent with the standards of the Zoning District and complies with the applicable standards of all regulatory agencies having jurisdiction.

FINDING: The applicant and the applicant's engineering team have taken careful consideration of the sensitive wetland and waterways existing on the subject property. The applicant has hired a wetland ecologist to complete a wetland delineation and that report has been sent to DSL. Additionally, the applicant has been working closely with DSL on obtaining the required permits to work in areas that contain wetlands. Lastly, the applicant has retained a qualified engineering team to draw up plans that protect the wetland areas but also allow the property to be minimally developed with a homesite. For these reasons, staff do not find the development will cause any negative impacts that cannot be mitigated or addressed appropriately. Criterion met.

6. STAFF REVIEW OF STORM DRAINAGE CRITERIA

LCD 9.520. Until completion of a Storm Drainage Master Plan for the City of Lowell, Section IV, of the Standards for Public Improvements and the following shall apply. In the event of a conflict, the following takes precedence.

(a) General Provisions. It is the obligation of the property owner to provide proper drainage and protect all runoff and drainage ways from disruption or contamination. On-site and off-site drainage improvements may be required. Property owners shall provide proper drainage and shall not direct drainage across another property except as a part of an approved drainage plan. Paving, roof drains and other catch basin outflows may require detention ponds or cells and discharge permits. Maintaining proper drainage is a continuing obligation of the property owner. The City will approve

a development request only where adequate provisions for storm and flood water run-off have been made as determined by the City. The storm water drainage system must be separate and independent of any sanitary sewerage system. Inlets should be provided so surface water is not carried across any intersection or allowed to flood any street. Surface water drainage patterns and proposed storm drainage must be shown on every development plan submitted for approval. All proposed drainage systems must be approved by the City as part of the review and approval process.

FINDING: The applicant's engineering team has completed a Stormwater Management Plan and Drainage Study (see **Attachment F**). This plan has been reviewed by the City Engineer. The City Engineer did have some comments that needed to be addressed by the applicant's engineering team and those comments have been addressed and incorporated into the revised plans as submitted by the applicant's engineering team. The design detains and treats all stormwater onsite before discharging to the drainage that transects the site and will not connect to the public system. The public ROW stormwater will be treated and detained within the ROW before discharging to the drainage to the west. The drainage system will allow for a better flow pattern, reduced erosion, a higher capacity and is designed to reduce flooding of the site and adjacent properties. Criterion met.

7. STAFF REVIEW OF WETLANDS DEVELOPMENT STANDARDS

SECTION 9.610 WETLANDS DEVELOPMENT STANDARDS.

Wetlands are defined as those areas that are inundated or saturated often enough to support a prevalence of vegetation adapted for life in standing water or saturated soil. Wetlands include swamps, bogs, marshes and similar areas.

(a) Regulation. Development within wetlands is prohibited unless replacement or enhancement mitigation is accepted by the regulatory agencies. The Oregon Division of State Lands (DSL) is the coordinating agency for wetland permits. The US Army Corp of Engineers (Corps) is the federal regulatory agency administering Section 404 of the National Clean Waters Act. There are also other state and federal coordinating agencies including DLCD.

FINDING: Staff sent DSL notice of this application on January 21, 2020 (see **Attachment G**). The applicant has been working with a wetland ecologist and completed and submitted a wetland delineation (see **Attachment H**). The applicant also has an approved **DEQ Nationwide 401 Water Quality Certification and permit from DSL to work in the wetland areas (Permit # 62767-GP).** Both permits from DEQ and DSL each contain their own set of conditions under which the applicant must perform the proposed work. The applicant shall adhere to the conditions as outlined in said permits. Criterion met.

8. STAFF REVIEW OF SECTION 9.517 STREETS

> ***Section 9.517 Streets. Urban public street improvements including curbs, gutters and storm drainage are required for all land divisions and property development in the City of Lowell. Urban street improvements may be deferred by the City if there is not existing sidewalk or storm drain system to which connection can be made, conditional upon the responsible party agreeing to an irrevocable waiver of remonstrance to a future assessment at the time of construction of a sidewalk which is otherwise required to be constructed.***

FINDING: As discussed above, the subject property will take access from an unimproved portion of North Damon Street. Section 9.517 states "Urban public street improvements including curbs, gutters and storm drainage are required for all land divisions and property development in the City of Lowell." Presently, the portion of North Damon involved in this application does not contain any street improvements, and typically, development of a property would trigger those improvements immediately, but the code does offer a deferment of public improvements if there are no existing sidewalks or storm drain system to tie into. In this case, the City will allow the property owner to defer those public improvements until such time connections can be made. This deferment comes in the form of an irrevocable waiver of remonstrance to a future assessment. The applicant has indicated in their written narrative that they are agreeable to this condition**. The urban street improvements shall include a paved half-street to centerline improvement, storm drainage, sidewalk, curb and gutter for the entire frontage of the subject property.** The sidewalks requirement will be addressed below in Section 9.518. Criterion met conditionally.

Condition of Approval #1: As a condition of approval for Section 9.517 Streets, the applicant and the City shall enter into an irrevocable waiver of remonstrance to a future assessment that includes the urban street improvements to include a paved half-street to centerline improvement, storm drainage, sidewalk, curb and gutter for the entire frontage of the subject property. The irrevocable waiver of remonstrance shall be signed by the City and the applicant prior to the issuance of building permits and be recorded with the property.

9. STAFF REVIEW OF SECTION 9.518 SIDEWALKS.

> ***Section 9.518 Sidewalks. Public sidewalk improvements are required for all land divisions and property development in the City of Lowell. Sidewalks may be deferred by the City where future road or utility improvements will occur and on property in the rural fringe of the City where urban construction standards have not yet occurred. The property owner is obligated to provide the sidewalk when requested by the City or is obligated to pay their fair share if sidewalks are installed by the City at a later date. An irrevocable Waiver of Remonstrance shall be recorded with the property to guarantee compliance with this requirement.***

FINDING: Consistent with the above finding for Streets, the applicant will be required to enter into an irrevocable waiver of remonstrance to participate in sidewalk improvements when the portion of North Damon that abuts the property frontage improves, **as indicated in Section 9.518**. Improvements shall include the construction of sidewalk, curb and gutter for the entire frontage of the property that abuts the unimproved portion of North Damon. The irrevocable waiver of remonstrance outlining such terms, shall be signed by the City and the applicant prior to the issuance of building permits and be recorded with the property. Criterion met conditionally.

Condition of Approval #2: As a condition of approval for Section 9.518 Sidewalks, the applicant and the City shall enter into an irrevocable waiver of remonstrance to a future assessment that includes the construction of sidewalk, curb and gutter for the entire frontage of the subject property. The irrevocable waiver of remonstrance shall be signed by the City and the applicant prior to the issuance of building permits and be recorded with the property.

10. STAFF REVIEW OF SECTION 9.516 ACCESS

(a)Every property shall abut a street other than an alley for a minimum width of 16 feet, of which 12 foot must be paved, except where the City has approved an access to multiple lots sharing the same access in which case the total width must be at least 16 feet. No more than two properties may utilize the same access unless more are approved with the tentative plan.

(b)The following access alternatives to Panhandle properties may be approved by the City:

> ***(2) Approval of a road right-of-way without providing the road improvements until the lots are developed. This places the burden for road improvements on the City although the City can assess all of the benefiting properties when improvements are provided in the future. As a condition of approval, the City may require an irrevocable Waiver of Remonstrance to be recorded with the property.***

FINDING: The applicant is proposing a gravel driveway take access from North Damon to reach the proposed homesite. The City finds the proposal acceptable for now because that portion of North Damon is presently unimproved and consists of gravel. However, **as listed in Section 9.516 Access**, the driveway approach where it meets city right of way will have to be paved for a minimum of 12-feet once urban street improvements occur on North Damon. This will be a condition of approval and included in an irrevocable waiver of remonstrance to be recorded with the property. Criterion met conditionally.

Condition of Approval #3: When urban street improvements occur on North Damon along the frontage of the subject property, the applicant shall pave a driveway approach to a minimum width of 12-feet as indicated in Section 9.516. The requirement for a minimum 12-foot paved approach shall be included in an irrevocable waiver of remonstrance to be signed

by the City and the applicant. The irrevocable waiver of remonstrance shall be recorded with the property and signed by both parties before the issuance of building permits.

11. STAFF REVIEW OF SECTION 9.521 WATER

(a)All new development must connect to the public water system unless specifically approved otherwise as a part of a development approval for parcels exceeding 5 acres in size after division for which the public water system is located further than 300 feet from any property line. All water line extensions, required fire hydrants, and related appurtenances shall be installed and paid for by the developer unless the City has approved otherwise as a part of the tentative plan decision process.

(c) Water Line Extensions. Water distribution lines must be extended along the full length of the property's frontage along the right-of-way or to a point identified by the City Administrator as necessary to accommodate likely system expansion. Water line extensions may be required through the interior of properties, within dedicated public utility easements, when necessary to provide for service to other properties or to provide system looping for fire flows. All public water system line extensions shall have a minimum 6 inch diameter unless a smaller size is recommended by the City Engineer and approved by the City. The City Engineer may also require a larger size if needed to extend transmission capacity or for fire hydrant flow where looping is not available.

FINDING: As discussed earlier in this staff report, the existing city-water line currently terminates near the southeastern corner of the subject property. As seen on the applicant's site plans, the applicant is extending this water line north along North Damon to a point just past the gravel driveway. The City finds the proposal acceptable for now because this portion of North Damon is unimproved and there are no other immediate development plans for homesites located north of this property or on the opposite side of North Damon. **However, the code standards for Section dictate that water line extensions shall be extended along the full length of the property's frontage.** This will be a condition of approval and included in the irrevocable waiver of remonstrance. Its likely full water line extension will not occur until urban street improvements occur for this portion of North Damon. If the applicant would rather extend the waterline along the full frontage of the property at the time of development of the present proposal, the City would find that acceptable. In this case, the applicant's engineering team is advised to work with the City Engineer and Public Works on specific plans for extension. Criterion met conditionally.

Condition of Approval #4: Prior to the issuance of building permits, the applicant and the City shall enter into an irrevocable waiver remonstrance to require the full extension of the water line along the property's frontage at such time when urban street improvements occur on this portion of North Damon Street. The applicant will be responsible for the costs of extending the waterline along the full property's frontage. The irrevocable waiver of remonstrance shall be recorded with the property.

12. RECOMMENDATION

Staff recommends the Planning Commission **APPROVE** a site plan review **based on the findings, conclusions and conditions as contained in the staff report**.

13. CONDITIONS OF APPROVAL

Condition of Approval #1: As a condition of approval for **Section 9.517 Streets**, the applicant and the City shall enter into an irrevocable waiver of remonstrance to a future assessment that includes the urban street improvements to include a paved half-street to centerline improvement, storm drainage, sidewalk, curb and gutter for the entire frontage of the subject property. The irrevocable waiver of remonstrance shall be signed by the City and the applicant prior to the issuance of building permits and be recorded with the property.

Condition of Approval #2: As a condition of approval for **Section 9.518 Sidewalks**, the applicant and the City shall enter into an irrevocable waiver of remonstrance to a future assessment that includes the construction of sidewalk, curb and gutter for the entire frontage of the subject property. The irrevocable waiver of remonstrance shall be signed by the City and the applicant prior to the issuance of building permits and be recorded with the property.

Condition of Approval #3: When urban street improvements occur on North Damon along the frontage of the subject property, the applicant shall pave a driveway approach to a minimum width of 12-feet as indicated in **Section 9.516**. The requirement for a minimum 12-foot paved approach shall be included in an irrevocable waiver of remonstrance to be signed by the City and the applicant. The irrevocable waiver of remonstrance shall be recorded with the property and signed by both parties before the issuance of building permits.

Condition of Approval #4: Prior to the issuance of building permits, the applicant and the City shall enter into an irrevocable waiver remonstrance to require the full extension of the water line along the property's frontage at such time when urban street improvements occur on this portion of North Damon Street, as required in **Section 9.521**. The applicant will be responsible for the costs of extending the waterline along the full property's frontage. The irrevocable waiver of remonstrance shall be recorded with the property.

14. INFORMATIONAL ITEMS

Applicant is advised that an appropriate Facility Permit to work within City of Lowell Rights of Way must be obtained. The Public Works Director is Mr. Max Backer and can be reached at: 541-937-2776, mbaker@ci.lowell.or.us

Applicant is advised that all conditions for development contained in the DSL Fill/Removal Permit and Water Quality Certification shall be adhered to.

Applicant is advised that all building permits must be obtained before construction on the proposal commences.

15. ATTACHMENTS

Attachment A – DSL/ WQC Permits
Attachment B – City Engineer Comments
Attachment C – Local Wetland Inventory Map
Attachment D – Sheet 2.0
Attachment E – FEMA Map
Attachment F – Drainage Study
Attachment G – Wetland Notice
Attachment H – Wetland Delineation
Attachment I – Applicant's Initial Plan Set
Attachment J – Applicant's Supplemental Plan Set
Attachment K – Notice Materials
Attachment L – Applicant Application and Written Materials
Attachment M – Decision to be Signed by PC Chair

ATTACHMENT A

Oregon
Kate Brown, Governor

Department of Environmental Quality
Northwest Region Portland Office/Water Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100
(503) 229-5263
FAX (503) 229-6957
TTY 711

September 11, 2020

Tristan Ferguson
PO Box 244
Dexter, OR 97431

RE: Nationwide 401 Water Quality Certification Approval for 2020-284, Ferguson Lot 2301

The US Army Corps of Engineers (USACE) has determined that your project will be authorized under Nationwide Permit (NWP) category #29. As described in the application package received and reviewed by the Oregon Department of Environmental Quality (DEQ), the project qualifies for the Nationwide Section 401 Water Quality Certification (WQC), subject to the conditions outlined below. If you cannot meet all conditions of this 401 WQC, you may apply for a standard individual certification. A standard individual certification will require additional information and higher fees will apply.

Certification Decision: Based on information provided by USACE and the Applicant, DEQ is reasonably assured that implementation-eligible activities under the proposed NWP will be consistent with applicable provisions of Sections 301, 302, 303, 306, and 307 of the federal Clean Water Act, state water-quality standards set forth in Oregon Administrative Rules Chapter 340 Division 41, and other appropriate requirements of state law, provided the following conditions are incorporated into the federal permit and strictly adhered to by the Applicant.

In addition to all USACE national and regional permit conditions, the following 401 WQC conditions apply to all NWP categories that qualify for the Nationwide 401 WQC.

401 GENERAL CERTIFICATION CONDITIONS

1) **Responsible parties:** This 401 WQC applies to the Applicant. The Applicant is responsible for the work of its contractors and sub-contractors, as well as any other entity that performs work related to this WQC.

2) **Work Authorized:** Work authorized by this 401 WQC is limited to the work described in the Application or Pre-Construction Notification submitted to the USACE and additional application materials (hereafter "the permit application materials"), unless otherwise authorized by DEQ. If the project is operated in a manner not consistent with the project description contained in the permit application materials, the Applicant is not in compliance with this 401 WQC and may be subject to enforcement.

3) A copy of this 401 WQC must be kept on the job site and readily available for reference by Applicant and its contractors, as well as by DEQ, USACE, National Marine Fisheries Service (NMFS), Oregon Department of Fish and Wildlife (ODFW), and other appropriate state and local government officials.

4) In accordance with OAR 340-048-0050, DEQ may modify or revoke this 401 WQC if project activities are having an adverse impact on state water quality or beneficial uses, or if the Applicant is otherwise in violation of the conditions of this certification.

5) The Applicant and its contractors must allow DEQ access to the project site, staging areas, and mitigation sites to monitor compliance with these 401 WQC conditions, including:
   a. Access to any records, logs, and reports that must be kept under the conditions of this 401 WQC;
   b. To inspect best management practices (BMPs), monitoring or operational equipment or methods; and
   c. To collect samples or monitor any discharge of pollutants.

6) Failure of any person or entity to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce its terms.

7) **Land Use Compatibility Statement:** In accordance with OAR 340-048-0020(2) (i), each Applicant must submit findings prepared by the local land use jurisdiction that demonstrates the activity's compliance with the local comprehensive plan. Such findings can be submitted using the appropriate section of the USACE & DSL Joint Permit Application, signed by the appropriate local official and indicating:

   a. "This project is consistent with the comprehensive plan and land use regulations;" or,

   b. "This project will be consistent with the comprehensive plan and land use regulations when the following local approvals are obtained," accompanied by the obtained local approvals.

   c. Rarely, such as for federal projects on federal land, "this project is not regulated by the comprehensive plan" will be acceptable.

   In lieu of submitting the appropriate section of the USACE & DSL Joint Permit Application, the Applicant may use DEQ's Land Use Compatibility Statement form found at: http://www.oregon.gov/deq/FilterDocs/lucs.pdf

FOR PROJECTS THAT PROPOSE CONSTRUCTION, THE FOLLOWING GENERAL CONDITIONS APPLY

8) **Erosion and Sediment Control**: During construction, erosion and sediment control measures must be implemented to prevent or control movement of sediment, soil or pollutants into waters of the state. The Applicant is required to develop and implement an effective erosion and sediment control plan. **Any project that disturbs more than one acre is required to obtain an NPDES 1200-C construction stormwater permit from DEQ.** In addition, the Applicant (or responsible party) must:
   a. Where practicable, use removable pads or mats to prevent soil compaction at all construction access points through, and staging areas in, riparian or wetland areas to prevent soil compaction.

   b. Demarcate wetlands not specifically authorized to be impacted to protect from disturbance and/or erosion.

c. Place dredged or other excavated material on upland areas with stable slopes to prevent materials from eroding back into waterways or wetlands. Place BMPs as necessary to stabilize and prevent erosion.

9) **Spill Prevention:** The Applicant must fuel, operate, maintain and store vehicles, and must store construction materials, in areas that will not impact water quality either directly or due to potential discharges.

10) **Spill & Incident Reporting:**
   a. In the event that petroleum products, chemicals, or any other deleterious materials are discharged into state waters, the discharge must be promptly reported to the Oregon Emergency Response Service (OERS, 1-800-452-0311). Containment and cleanup must begin immediately and be completed as soon as practicable.

   b. If the project operations result in distressed or dying fish, the operator must immediately: cease operations; take appropriate corrective measures to prevent further environmental damage; and immediately notify DEQ and ODFW.

11) **Vegetation Protection and Site Restoration:**
   a. The Applicant must protect riparian, wetland, and shoreline vegetation in the authorized project area from disturbance through one or more of the following:
      i. Minimization of project and impact footprint;
      ii. Designation of staging areas and access points in open, upland areas;
      iii. Fencing and other barriers demarking construction areas; and
      iv. Use of alternative equipment (e.g., spider hoe or crane).

   b. If authorized work results in any vegetative disturbance and the disturbance has not been accounted for in planned mitigation actions, the Applicant must successfully reestablish vegetation to a degree of function equivalent or better than before the disturbance.

12) The Applicant shall avoid and protect from harm, **all wetlands and riparian areas located within 50 feet of USACE jurisdictional waters**, unless proposed, necessary, and approved as part of the project. If a local jurisdiction has a more stringent buffer requirement, that requirement will override this certification requirement.

FOR PROJECTS THAT PROPOSE IN-STREAM WORK IN JURISDICTIONAL WATERS

13) **Fish protection/Oregon Department of Fish and Wildlife timing:** The Applicant must perform in-water work only within the Oregon Department of Fish and Wildlife preferred time window as specified in the *Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources*, or as authorized otherwise under a USACE permit and/or Department of State Lands removal/fill permit. Exceptions to the timing window must be recommended by Oregon Department of Fish and Wildlife, the National Marine Fisheries Services and/or the US Fish and Wildlife as appropriate.

14) **Aquatic life movements:** Any activity that may disrupt the movement of aquatic life living in the water body, including those species that normally migrate through the area, is prohibited. The Applicant must provide unobstructed fish passage at all times during any authorized activity, unless otherwise approved in the approved application.

15) **Turbidity**: The Applicant must implement appropriate Best Management Practices (BMPs) to minimize turbidity during in-water work. Any activity that causes turbidity to exceed 10% above natural stream turbidity is prohibited except as specifically provided below:

a. **Monitoring**: Turbidity monitoring must be conducted and recorded as described below. Monitoring must occur at two hour intervals each day during daylight hours when in-water work is being conducted. A properly calibrated turbidimeter is required **unless another monitoring method is proposed and authorized by DEQ**.

i. Representative Background Point: The Applicant must take and record a turbidity measurement every two hours during in-water work at an undisturbed area. A background location shall be established at a representative location approximately 100 feet upcurrent of the in water activity unless otherwise authorized by DEQ. The background turbidity, location, date, tidal stage (if applicable) and time must be recorded immediately prior to monitoring downcurrent at the compliance point described below.

ii. Compliance Point: The Applicant must monitor every two hours. A compliance location shall be established at a representative location approximately 100 feet downcurrent from the disturbance at approximately mid-depth of the waterbody and within any visible plume. The turbidity, location, date, tidal stage (if applicable) and time must be recorded for each measurement.

b. **Compliance**: The Applicant must compare turbidity monitoring results from the compliance points to the representative background levels taken during each two – hour monitoring interval. Pursuant to OAR 340-041-0036, short term exceedances of the turbidity water quality standard are allowed as follows:

MONITORING WITH A TURBIDIMETER *EVERY 2 HOURS*	
TURBIDITY LEVEL	***Restrictions to Duration of Activity***
0 to 4 NTU above background	No Restrictions
5 to 29 NTU above background	Work may continue maximum of 4 hours. If turbidity remains 5-29 NTU above background, stop work and modify BMPs. Work may resume when NTU is 0-4 above background.
30 to 49 NTU above background	Work may continue maximum of 2 hours. If turbidity remains 30-49 NTU above background, stop work and modify BMPs. Work may resume when NTU is 0-4 above background.
50 NTU or more above background	Stop work immediately and inform DEQ

c. **Reporting**: The Applicant must record all turbidity monitoring required by subsections (a) and (b) above in daily logs. The daily logs must include calibration

documentation; background NTUs; compliance point NTUs; comparison of the points in NTUs; location; date; time; and tidal stage (if applicable) for each reading. Additionally, a narrative must be prepared discussing all exceedances with subsequent monitoring, actions taken, and the effectiveness of the actions. Applicant must make available copies of daily logs for turbidity monitoring to DEQ, USACE, NMFS, USFWS, and ODFW upon request.

d. **BMPs to Minimize In-stream Turbidity:** The Applicant must implement the following BMPs, unless otherwise accepted by DEQ:

   i. Sequence/Phasing of Work – The Applicant must schedule work activities so as to minimize in-water disturbance and duration of in-water disturbances;
   ii. Bucket control - All in-stream digging passes by excavation machinery and placement of fill in-stream using a bucket must be completed so as to minimize turbidity. All practicable techniques such as employing an experienced equipment operator, not dumping partial or full buckets of material back into the wetted stream, adjusting the volume, speed, or both of the load, or using a closed-lipped environmental bucket must be implemented;
   iii. The Applicant must limit the number and location of stream-crossing events. Establish temporary crossing sites as necessary in the least sensitive areas and amend these crossing sites with clean gravel or other temporary methods as appropriate;
   iv. Machinery may not be driven into the flowing channel, unless authorized by DEQ; and
   v. Excavated material must be placed so that it is isolated from the water edge or wetlands, and not placed where it could re-enter waters of the state uncontrolled.

FOR PROJECTS THAT INCLUDE NEW IMPERVIOUS SURFACES OR REDEVELOPMENT OF EXISTING SURFACES, THE FOLLOWING CONDITIONS APPLY

16) **Post-Construction Stormwater Management:** For projects which propose new impervious surfaces or the redevelopment of existing surfaces, the Applicant must submit a post-construction stormwater management plan to DEQ for review and approval prior to construction, in order to ensure compliance with water quality standards. The Applicant must implement BMPs as proposed in the stormwater management plan, including operation and maintenance. If proposed stormwater facilities change due to site conditions, the Applicant must notify DEQ.

In lieu of a complete stormwater management plan, the Applicant may submit documentation of acceptance of the stormwater into a DEQ permitted National Pollutant Discharge Elimination System (NPDES) Phase I Municipal Separate Storm Sewer System (MS4).

17) **Stormwater Management & System Maintenance:** The Applicant is required to implement effective operation and maintenance practices for the lifetime of the proposed facility.

CATEGORY-SPECIFIC CONDITIONS

In addition to all national and regional conditions of the USACE permit and the 401 Water Quality Certification general conditions above, the following conditions apply to the noted specific categories of authorized activities.

NWP 7 – Outfall Structures and Associated Intake Structures:

7.1) The following actions are denied certification:

a. Discharge outfalls that are not subject to an NPDES permit; and

b. Outfalls that discharge stormwater without pollutant removal demonstrated to meet water-quality standards prior to discharge to waters of the state.

7.2) If an Applicant cannot obtain an NPDES permit or submit an approvable stormwater management plan per DEQ's Guidelines found at: http://www.oregon.gov/deq/FilterDocs/401wqcertPostCon.pdf the Applicant must submit complete project information and water quality impacts analysis directly to DEQ in order to undergo individual 401 WQC evaluation and fulfill public participation requirements.

NWP 12 – Utility Lines:

12.1) For proposals that include directionally-bored stream or wetland crossings:

a. All drilling equipment, drill recovery and recycling pits, and any waste or spoil produced, must be completely isolated, recovered, then recycled or disposed of to prevent entry into waters of the state.

b. In the event that drilling fluids enter a water of the state, the equipment operator must stop work, immediately initiate containment measures and report the spill to the Oregon Emergency Response System (OERS) at 800-452-0311.

c. An adequate supply of materials needed to control erosion and to contain drilling fluids must be maintained at the project construction site and deployed as necessary.

d. The Applicant must have a contingency plan in place prior to construction for the inadvertent return of drilling lubricant.

12.2) For proposals that include utility lines through wetlands, include anti-seep collars or equivalent technology to prevent draining the wetlands.

NWP 13 – Bank Stabilization:

13.1) Projects that do not include bioengineering are denied certification, unless a registered professional engineer provides a written statement that non-bioengineered solutions are the only means of protection.

13.2) To apply for certification for a project without bioengineering, the Applicant must submit complete project information and water quality impacts analysis directly to DEQ in order to undergo individual 401 WQC evaluation and fulfill public participation requirements.

NWP 14 – Linear Transportation:

14.1) For projects that include bank stabilization, bioengineering must be a component of the project, unless a registered professional engineer provides a written statement that non-bioengineered solutions are the only means to protect an existing structure.

14.2) To apply for certification for a project without bioengineering, the Applicant must submit complete project information and water quality impacts analysis directly to DEQ in order to undergo individual 401 WQC evaluation and fulfill public participation requirements.

NWP 16 - Return Water from Contained Upland Disposal Areas: Water-quality criteria and guidance values for toxics, per OAR 340-041-0033, are available in Tables 30, 31, and 40 at: http://www.oregon.gov/deq/Rulemaking%20Docs/tables303140.pdf.

16.1) Discharge of return water from contaminated dredged material that exceeds a chronic or acute toxicity water quality standard is prohibited.

16.2) Water removed with contaminated dredged material that could or does exceed chronic water-quality criteria must be contained and disposed of at an appropriately sized and sealed upland facility by evaporation or infiltration.

16.3) If a Modified Elutriate Test (MET) is performed for the known contaminants of concern (CoCs) and CoC concentrations are below DEQ chronic water-quality criteria, return water discharge is not limited.

a. The MET must be performed before dredging.
b. DEQ must approve the list of CoCs and analytical method prior to the Applicant performing the MET.
c. DEQ must review the results and provide approval of discharge from return water, in writing, prior to dredging.

NWP 20 – Response Operations for Oil and Hazardous Waste:

20.1) Coordination with DEQ's Emergency Response program is required. See: http://www.oregon.gov/deq/Hazards-and-Cleanup/env-cleanup/Pages/Emergency-Response.aspx.

NWP 22 – Removal of Vessels:

22.1) Coordination with DEQ's Emergency Response program is required. See: http://www.oregon.gov/deq/Hazards-and-Cleanup/env-cleanup/Pages/Emergency-Response.aspx.

NWP 31 – Maintenance of Existing Flood Control Facilities:

31.1) Projects in streams with temperature TMDLs which result in a net reduction of riparian shade are prohibited.

NWP 38 – Cleanup of Hazardous and Toxic Waste:

38.1) For removal of contaminated material from waters, dredging method is limited to diver assisted hydraulic suction, hydraulic suction, closed-lipped environmental bucket, or excavation in the dry, unless otherwise authorized by DEQ.

a. For in-water isolation measures, the Applicant is referred to Appendix D of DEQ's Oregon Erosion and Sediment Control Manual, April 2005 (or most current version), at: https://www.oregon.gov/deq/FilterPermitsDocs/ErosionSedimentControl.pdf.

38.2) Discharge to waters of the state resulting from dewatering during dredging or release of return water from an upland facility is prohibited except as provided below.

a. All water removed with sediment must be contained and disposed of at an appropriately sized and sealed upland facility by evaporation or infiltration; or,

b. A Modified Elutriate Test (MET) may be performed for the known Contaminants of Concern (CoCs) and if CoC concentrations are below DEQ chronic water-quality criteria; return water discharge is not limited.

i. The MET must be performed before dredging.
ii. DEQ must approve the list of CoCs and analytical method prior to the Applicant performing the MET.
iii. DEQ must review the results and provide approval of discharge from dewatering and return water in writing prior to dredging.

38.3) Dredged material must be disposed of in compliance with DEQ Rules governing Hazardous Waste (see: http://www.oregon.gov/deq/Hazards-and-Cleanup/hw/Pages/default.aspx) or Solid Waste (see: http://www.oregon.gov/deq/mm/swpermits/Pages/Solid-Waste-Disposal-Sites-and-Landfill.aspx).

38.4) The new in-water surface must be managed to prevent exposure or mobilization of contaminants.

NWP 41 - Reshaping Existing Drainage Ditches:

41.1) To the extent practicable, the Applicant must work from only one bank in order to minimize disturbance to existing vegetation, preferably the bank with the least existing vegetation;

41.2) Following authorized work, the Applicant must establish in-stream and riparian vegetation on reshaped channels and side-channels using native plant species wherever practicable. Plantings must be targeted to address water-quality improvement (e.g., provide shade to water to reduce temperature or provide bank stability through root systems to limit sediment inputs). Planting options may include clustering or vegetating only one side of a channel, preferably the side which provides maximum shade.

NWP 42 – Recreational Facilities:

42.1) For facilities that include turf maintenance actions, the Applicant must develop and implement an Integrated Pest Management Plan (IPM) that describes pest prevention, monitoring and control techniques with a focus on prevention of chemical and nutrient inputs to waters of the state, including maintenance of adequate buffers for pesticide application near salmonid streams, or coverage under an NPDES permit, if required (information is available at: http://www.oregon.gov/deq/wq/wqpermits/Pages/Pesticide.aspx).

NWP 43 – Stormwater Management Facilities:

43.1) Projects that propose the following elements are denied certification:
a. In-stream or wetland stormwater facilities;
b. Discharge outfalls not subject to an NPDES permit; and,
c. Proposals that do not demonstrate pollutant removal to meet water-quality standards prior to discharge to waters of the state.

43.2) To apply for certification for a project with in-stream stormwater facilities, without an NPDES permit, or without submittal of an approvable stormwater management plan per DEQ's Guidelines (at: http://www.oregon.gov/deq/FilterDocs/401wqcertPostCon.pdf), the Applicant must submit complete project information and water quality impacts analysis directly to DEQ in order to undergo individual 401 WQC evaluation and fulfill public participation requirements.

NWP 44 – Mining Activities:

44.1) Projects that do not obtain an NPDES 700-PM or Individual permit are denied certification.

44.2) To apply for certification for a project without an NPDES permit, the Applicant must submit complete project information and water quality impacts analysis directly to DEQ in order to undergo individual 401 WQC evaluation and fulfill public participation requirements.

NWP 51 – Land-Based Renewable Energy Generation Facilities:

51.1) For associated utility lines with directionally-bored stream or wetland crossings proposed, condition 12.1 must be applied.

NWP 54 – Living Shorelines

54.1) Projects that do not include bioengineering are denied certification, unless a registered professional engineer provides a written statement that non-bioengineered solutions are the only means of protection.

If the Applicant is dissatisfied with the conditions contained in this certification, a hearing may be requested. Such request must be made in writing to DEQ's Office of Compliance and Enforcement at 700 NE Multnomah St, Suite 600, Portland Oregon 97232, within 20 days of the mailing of this certification.

The DEQ hereby certifies that this project complies with the Clean Water Act and state rules, with the above conditions. If you have any questions, please contact Anne Kim at 503-229-5623, by email at Kim.Anne@deq.state.or.us, or at the address on this letterhead.

Sincerely,

Steve Mrazik,
Water Quality Manager
Northwest Region

ec: Benny Dean, USACE
Charles Redon, DSL
Brian Meiering, Wetlands and Wildlife LLC

ATTACHMENT B

HEARLEY Henry O

From: Matt Wadlington <Mwadlington@civilwest.net>
Sent: November 6, 2020 10:56 AM
To: HEARLEY Henry O
Cc: Max Baker; Marsha Miller
Subject: RE: Comment for Site Review Proposal in Lowell Oregon

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Henry,

I have reviewed the site development plans for the property on N. Damon Street and have the following comments:

1. Per Lowell Development Code 9.517 (streets) and 9.521 (water), public improvements should be extended the full frontage of the property. I understand the rationale for not extending this infrastructure, but it will need Council Approval as it is a deviation from Code. Applicant states that a Letter of Non-Remonstrance will be provided, but generally that does not obligate money for the future project. It would have to be a Letter of Non-Remonstrance ***to a future assessment***.
2. Similar, the Development Code does not allow for gravel streets or driveways. Will require City approval.
3. On the Improvement Plans:
    a. Sewer:
        i. Is private sewer lateral above or below 40" HDPE culverts.
        ii. Provide grades of sewer lateral.
        iii. Minimum slope of sewer lateral is 2% unless otherwise approved.
        iv. Sewer lateral connection to existing sewer should be per City of Lowell Standard Detail 311 or 312 (depending on depth).
        v. Sewer lateral will be required to have cleanout at property line.
    b. Water
        i. Water service lateral & connection to main shall be per City of Lowell Standard Detail 407.
        ii. Draw existing system correctly. Per current drawing, it appears the main line is being connected to a fire hydrant.
        iii. Adjust water main to be ~10' west of ROW centerline (within street section). Identify material and standard trench details, including backfill. Add reference to City Standard Detail 401 for thrust blocking.
        iv. Install blow-off per City of Lowell Standard Detail 404 at north end of watermain.
        v. Add note: "All materials which are in contact with potable water shall be NSF approved".
        vi. Provide clarification that water meter box is traffic rated and bedded to hold up to potential heavy traffic (fire truck) driving across it. Conversely, relocate water meter outside of roadway area.
    c. Street:
        i. Provide detail of proposed road section, including width and depth of materials.
        ii. Confirm turn-around geometry is approvable by Fire Department.
    d. Drainage:

i. Provide outlet for filter strip north of driveway
ii. Provide references to details of drainage features.
iii. Provide inlet and outlet elevations for HDPE driveway crossing.

e. Grading
i. Show existing contours.
ii. Show roadway and constructed drainage improvement grades and slopes.

4. Drainage Study
a. Section 10 of the Drainage Study identifies the 25-yr full build-out runoff rate to be 231 cfs, which is generally in agreement with the Lowell Stormwater Master Plan. However, calculations for both the pipe crossing and open channel capacities in Appendix C (pages 5 & 6) seem to use a flow rate of 117 cfs.

Please feel free to contact me if you have any questions or concerns regarding these comments.

--
Matt Wadlington, PE**, **Principal
Willamette Valley Regional Manager
d 541.982.4373 | c 520.444.4220

Civil West Engineering Services, Inc.
213 Water Ave. NW, Suite 100, Albany, OR 97321
p 541.223.5130
www.civilwest.com

From: HEARLEY Henry O <HHEARLEY@Lcog.org>
Sent: Wednesday, October 28, 2020 1:33 PM
To: Matt Wadlington <Mwadlington@civilwest.net>; Max Baker <mbaker@ci.lowell.or.us>; ODOTR2PLANMGR@odot.state.or.us; STANKA Danielle E <danielle.stanka@lanecountyor.gov>; Lon Dragt <dragt2300@gmail.com>; BAUDER Jared W <jared.bauder@lanecountyor.gov>
Cc: Marsha Miller <mmiller@ci.lowell.or.us>; Max Baker <mbaker@ci.lowell.or.us>; CALLISTER Jacob (LCOG) <jcallister@lcog.org>
Subject: Comment for Site Review Proposal in Lowell Oregon
Importance: High

All:

Please see attached plans for site review in Lowell, Oregon. The proposal will undergo a TYPE III site review, which will be reviewed and decided upon by Planning Commission. There appear to be wetlands, so DSL will receive notice. The PDFs do not combine, so they're all attached here separately.

This will be email 1 of 2.

If your respective agency has comments on the proposal, please return them to me by Friday, November 20. If you need larger, printed plans for your review, please let me know and I'll see if the City can get some sent out.

Thank you all.

Henry

Henry O. Hearley
Associate Planner
Lane Council of Governments
hhearley@lcog.org
541-682-3089

Lowell Local Wetland Inventory Map

ATTACHMENT C

Lower Fall Creek Watershed

Lookout Point Reservoir Watershed

T 19S R 1W S 10

T 19S R 1W S 11

T 19S R 1W S 14

T 19S R 1W S 15

Legend

- Study Area
- Taxlots
- Urban Growth Boundary
- Public Land Survey System
- Sample Plot (SP #)***
- Probable Wetland (PW) *
- Rivers, Streams & Ponds
- Watershed Boundary**
- Other Waters
- Riparian Reach Endpoint
- CF-1R Riparian Reach Endpoint Label

Locally Significant Wetlands

- NO
- YES

See Glossary of Cowardin Classes and Water Regimes located in the Lowell LWI Report for descriptions of codes on this map.

APPROVED LOCAL WETLANDS INVENTORY
OREGON DEPARTMENT OF STATE LANDS
12/21/2011 LM

***Note: Wetlands in Lowell's Local Wetland Inventory which are not within Lowell's recognized city limits, are not the jurisdiction of the City of Lowell and are not subject to ordinances adopted by the City of Lowell until such time as they are formally annexed into the City of Lowell.**

Wetland Code	Acres	Wetland Code	Acres
1	2.42	WD1996-0016-1	0.02
2a-d	10.81	WD1996-0016-2	0.16
3	0.25	WD1997-0473-1	0.12
4	0.42	WD1997-0473-2	0.23
5	0.42	WD1999-0201	1.62
6	0.34	WD2008-0030	0.51
7	9.14	WD2008-0618-1	0.22
8	0.31	WD2008-0618-2	0.1
WD1993-0106-1	0.2	WD2008-0618-3	0.02
WD1993-0106-2	0.85	WD2008-0618-4	0.002
WD1994-0067	0.34	WD2009-0442	6.87

N
0 162.5 325
Feet
1 inch = 200 feet

Disclaimer: Information shown on this map is for planning purposes, represents the conditions that exist at the map date, and is subject to change. The location and extent of wetlands and other waters is approximate. There may be unmapped wetlands and other waters present that are subject to regulation. A current Oregon Department of State Lands-approved wetland delineation is required for state removal-fill permits. You are advised to contact the Department of State Lands and the U.S. Army Corps of Engineers with any regulatory questions. Artificial wetlands and other waters may or may not be jurisdictional.

* A probable wetland appears to meet wetland criteria but is less than or equal to 0.10 acres or is small and of an undetermined size.

** 6th Field HUC

*** In some cases, a black arrow is associated with a sample plot location; the arrow points to the corresponding wetland that was investigated off-site.

Final - Revised 11/01/2012 Completed 10/07/2011

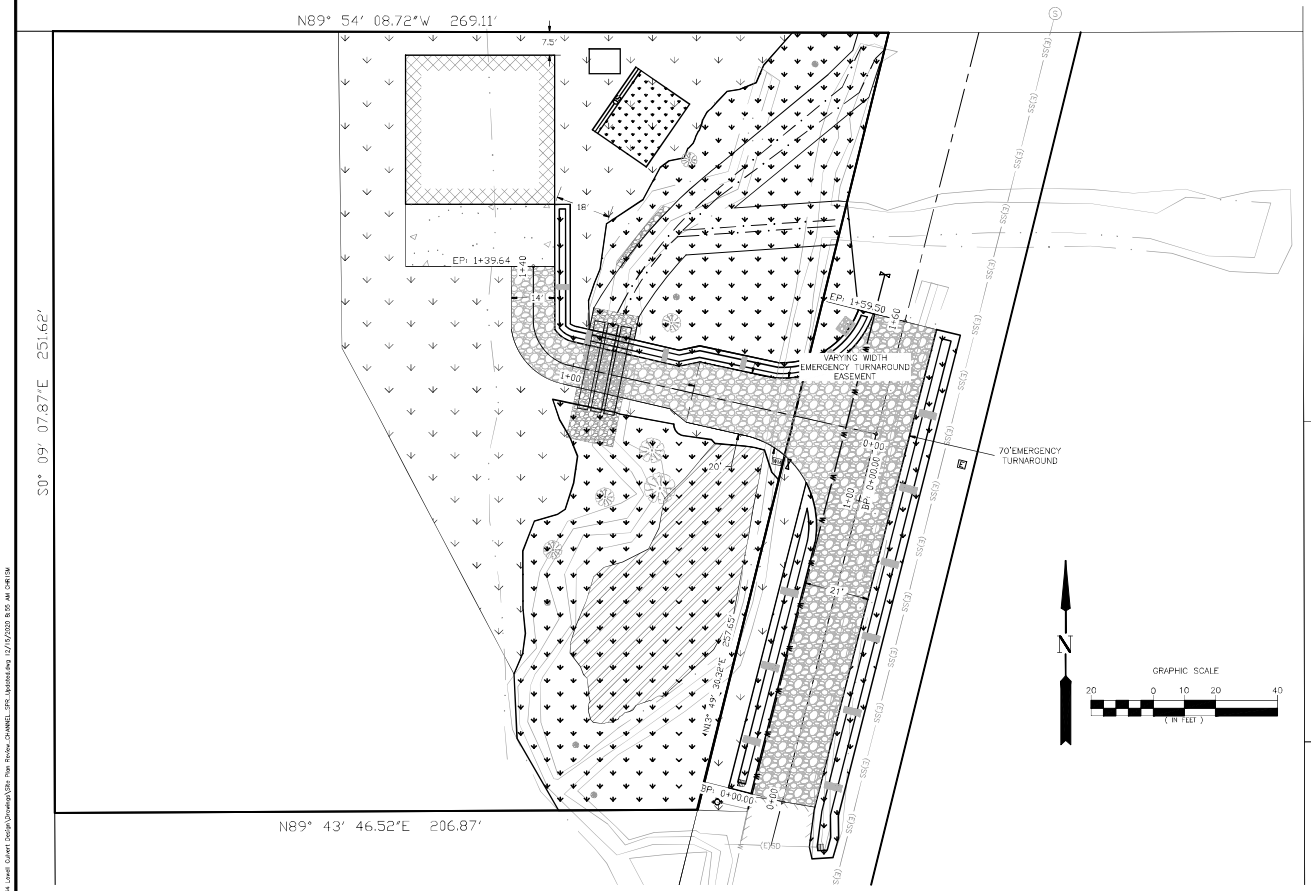
ESA

Dexter Lake

ATTACHMENT D

GENERAL NOTES

1. NORTH DAMON STREET RIGHT-OF-WAY STREET IMPROVEMENTS TO BE DEFERRED TO FUTURE TIME SHOULD THE ADJACENT LOTS BUILD-OUT. THE APPLICANT SHALL SIGN AN IRREVOCABLE WAIVER OF REMONSTRANCE TO A FUTURE ASSESSMENT TO PROVIDE FOR HALF-STREET IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO; SIDEWALK, CURB AND GUTTERS, STORM DRAINAGE, STREET LIGHTS AND SIGNAGE.



LEGEND

- EXISTING CONTOUR LINE
- PROPOSED CONTOUR LINE
- PROPERTY LINE
- EXISTING ASPHALT
- EXISTING FENCE
- EXISTING SANITARY SEWER
- EXISTING TOP OF BANK
- EXISTING TOE OF BANK
- PROPOSED TOP OF BANK
- PROPOSED TOE OF BANK
- HDPE CULVERT
- DRAINAGE DIRECTION
- RIP RAP
- BUILDING
- DECIDUOUS TREE
- GRAVEL STREET/DRIVEWAY
- MAPPED WETLAND
- POTENTIAL FUTURE SHALLOW DETENTION
- STORMWATER FILTER STRIP
- CONCRETE
- DETENTION TANK
- INLET CATCH BASIN
- ELECTRICAL TRANSFORMER
- PROPOSED EASEMENT
- WATER METER
- PROPOSED NEW WATER MAIN
- UPLAND SEED MIX
- WETLAND SEED MIX

TAX MAP 19-01-14-22 TAX LOT 2301

FOR SITE PLAN REVIEW ONLY
NOT FOR CONSTRUCTION

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REGISTERED PROFESSIONAL ENGINEER
#62780PE
DIGITALLY SIGNED
OREGON
DAMIEN GILBERT
EXPIRES: June 30, 2021

project title:

TRISTAN FERGUSON
TENTATIVE SITE PLAN REVIEW
N DAMON ST
LOWELL, OREGON
97452

revisions:

date: DECEMBER 15, 2020
drawn by: CM
designer: CM
project no: 19-264

SITE PLAN

sheet: **C2.0**

National Flood Hazard Layer FIRMette

ATTACHMENT E

FEMA

122°47'24"W 43°55'35"N

122°46'47"W 43°55'9"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/27/2021 at 6:00 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

ATTACHMENT G

Wetland Land Use Notification

OREGON DEPARTMENT OF STATE LANDS
775 Summer Street NE, Suite 100, Salem, OR 97301-1279
Phone: (503) 986-5200

This form is to be completed by planning department staff for mapped wetlands and waterways.

Responsible Jurisdiction

*	Municipality *	Date *
◉ City of ○ County of	LOWELL	1/21/2021

Staff Contact

First Name *	Last Name *
HENRY	HEARLEY
Phone *	**Email** *
5416823089	hhearley@lcog.org

Applicant

First Name *	Last Name *
TRISTAN	FERGUSON

Mailing Address *

Street Address
PO BOX 244
Address Line 2

City	State
DEXTER	OR
Postal / Zip Code	**Country**
97431	USA

Phone	Email (?)
541-556-0882	

Is the Property Owner name and address the same as the Applicant? *

○ No ◉ Yes

Activity Location

Township * (?)	Range * (?)	Section * (?)
19N	01W	14

Quarter-quarter Section (?)

AD

Tax Lot(s) *

2301

You can enter multiple tax lot numbers within this field. i.e. 100, 200, 300, etc.

To add additional tax map and lot information, please click the "add" button below.

Address

Street Address

Address Line 2

City

State

Postal / Zip Code

Country

County *

Lane

Adjacent Waterbody

DEXTER LAKE

Proposed Activity

Local Case File # *

LU 2020 01

Zoning

R1

Proposed

- [x] Building Permit (new structures)
- [ ] Grading Permit
- [x] Site Plan Approval
- [x] Other (please describe)

wetland development

- [ ] Conditional use Permit
- [ ] Planned Unit Development
- [ ] Subdivision

Project *

home site development in area of wetlands. Applicant has already received a valid DSL fill/removal permit. See attached. Sending this notice because it's required, not sure if any further action is required by applicant since they've already received their DSL permits.

Required attachments with site marked: Tax map and site plan(s). (?)

Notice_Packet_Ferguson_Site_Review.pdf 1.31MB

Required attachments with site marked: Tax map and site plan(s). (?)

62767GP Authorization20200910.pdf 1003.41KB

Required attachments with site marked: Tax map and site plan(s). (?)

20200911_NWP_401_Cert_Ferguson Lot 2301.pdf 5.06MB

Required attachments with site marked: Tax map and site plan(s). (?)

Complete 401 WQC Report_10_28 signed.pdf 5.18MB

Required attachments with site marked: Tax map and site plan(s). (?)

Plan Set.pdf 3.56MB

Required attachments with site marked: Tax map and site plan(s). (?)

landuseapplication_signed.pdf 1.06MB

Additional Attachments

Date

1/21/2021

ATTACHMENT H

WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

Fully completed and signed report cover forms and applicable fees are required before report review timelines are initiated by the Department of State Lands. Make checks payable to the Oregon Department of State Lands. To pay fees by credit card, go online at: https://apps.oregon.gov/DSL/EPS/program?key=4.

Attach this completed and signed form to the front of an unbound report or include a hard copy with a digital version (single PDF file of the report cover form and report, minimum 300 dpi resolution) and submit to: **Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279.** A single PDF of the completed cover from and report may be e-mailed to: **Wetland_Delineation@dsl.state.or.us**. For submittal of PDF files larger than 10 MB, e-mail DSL instructions on how to access the file from your ftp or other file sharing website.

Contact and Authorization Information

☒ Applicant ☐ Owner Name, Firm and Address:

Tristan Ferguson
P.O. Box 244
Dexter OR 97431

Business phone # (541) 556-0882
Mobile phone # (optional)
E-mail: squirt.ferguson@gmail.com

☐ Authorized Legal Agent, Name and Address (if different):

Business phone #
Mobile phone # (optional)
E-mail:

I either own the property described below or I have legal authority to allow access to the property. I authorize the Department to access the property for the purpose of confirming the information in the report, after prior notification to the primary contact.

Typed/Printed Name: Tristan Ferguson **Signature:** [signature]

Date: 10-8-2019 Special instructions regarding site access: contact consultant or property owner before visit

Project and Site Information

Project Name: Ferguson lot 2301

Latitude: 43.922817 Longitude: -122.784789
decimal degree - centroid of site or start & end points of linear project

Proposed Use:
Shop in uplands

Tax Map # 19011422
Tax Lot(s) 2301 and portion of right of way

Tax Map # --
Tax Lot(s) ---

Project Street Address (or other descriptive location):
Exit 188A OR-99N, left onto OR-58, 12.9 miles, left onto Pioneer Rd, 0.7 miles, left onto N. Shore Rd. Proceed to site

Township 19S Range 01W Section 14 QQ 22
Use separate sheet for additional tax and location information

City: Lowell County: Lane

Waterway: wetland/Unnamed Trib River Mile: NA

Wetland Delineation Information

Wetland Consultant Name, Firm and Address:

Brian Meiering, PWS
Wetlands and Wildlife LLC
PO Box 50878
Eugene, OR 97405-3819

Phone # (541) 214-6051
Mobile phone # (if applicable)
E-mail: brian@wetlandsandwildlifellc.com

The information and conclusions on this form and in the attached report are true and correct to the best of my knowledge.
Consultant Signature: [signature] Date: 10/03/2019

Primary Contact for report review and site access is ☒ Consultant ☐ Applicant/Owner ☐ Authorized Agent

Wetland/Waters Present? ☒ Yes ☐ No Study Area size: approx 1.34 Total Wetland Acreage: 0.2260

Check Applicable Boxes Below

☐ R-F permit application submitted
☐ Mitigation bank site
☐ Industrial Land Certification Program Site
☐ Wetland restoration/enhancement project (not mitigation)
☒ Previous delineation/application on parcel
If known, previous DSL # 2008-0030

☐ Fee payment submitted $ ____
☐ Fee ($100) for resubmittal of rejected report
☐ Request for Reissuance. See eligibility criteria. (no fee)
DSL # ____ Expiration date ____
☒ LWI shows wetlands or waters on parcel
Wetland ID code 2008-0030

For Office Use Only

DSL Reviewer: MU Fee Paid Date: ____/____/____ DSL WD # 2019-0564

Date Delineation Received: 10/14/19 Scanned: ☐ Electronic: ☒ DSL App.# ____

NOTICE: REPORTS ARE CONSIDERED DRAFT DOCUMENTS UNTIL REVIEW IS COMPLETED BY DSL. WETLAND MAPS MAY CHANGE AS A RESULT OF DSL REVIEW.

A) **Landscape Setting and Land Use** (previous and current) *OAR141-090-0035 (12)(a)*

The study area (SA) encompasses lot 2301 on Lane County tax map 19011422. The SA is within Lowell (Lane County) and was included in the Lowell Local Wetland Inventory (LWI) Study Boundary. The SA is 1.34 acres in size and surrounded by low and medium density residential. Utilities and infrastructure have been installed just east of the SA (storm sewer) and east side of the site (electric, water, gas etc). The west side of the SA is a steep and dry slope. Hydrology enters the site primarily from the north, although stormwater inputs are likely increasing from the east due to continuing development upslope. The SA straddles both a constructed channel and a wetland; The wetland area is strongly associated with the most recent natural watercourse. Since construction of a channel, flows in the historic channel are limited to flood events (primarily backwatering coupled with overbank flow). A stormwater feature enters from the northeast and may be associated with a historic natural drainageway. Essentially the historic drainage has maintained hydrology through either direct precipitation or seasonal inundation, but not to the extent that a discernible bed and bank is formed through normal scour. The constructed channel maintains flow year-round and significantly reduces both the timing and extent of hydrology which may have supported more extensive wetlands in the past.

Soil:

Soils found onsite were functionally like those mapped onsite (NRCS). Ritner cobbly silty clay loam is the dominant soil component on the upper western slopes, while Panther dominates the flats. Panther soils have been modified by removal fill activities associated with channelizing hydrology which enters from the east and north. Fill within the right of way of the SA and along the southern extent of W2 have reduced the extent and timing of historic hydrologic inputs.

A summary of onsite soils is listed below:

Map unit symbol	Map unit name	Rating
113E	Ritner cobbly silty clay loam, 12 to 30 percent slopes	Not hydric
102C	Panther silty clay loam, 2-12% slopes	All hydric

Vegetation:

Dominant wetland vegetation consists of *Fraxinus latifolia*, *Crataegus douglasii, Malus fusca*, *Alopecurus pratensis*, *Schedonorus arundinaceus, Camassia*

quamash and Rubus armeniacus. Dominant upland vegetation includes *Schedonorus arundinaceus, Dactylis glomerata, Plantago lanceolata, and Daucus carota.*

Hydrology:

Hydrology within the SA is provided by wetlands north of the SA, anthropogenic stormwater inputs from the east and direct precipitation. Perched groundwater and surface flow during rain events drain south and concentrate into what appears to be the historic stream channel. This stream channel connects to Dexter Reservoir.

B) **Site Alterations** *OAR141-090-0035 (10)(a-b), (12)(b)*

The SA has been modified through historic agricultural/farm uses but has remained relatively unmanaged in the last decade; more recent addition of a channel (onsite) has increased volume of flow through the site but has likely reduced the residence time and decreased the acreage meeting wetland hydrology criteria.

C) **Precipitation Data and Analysis** *OAR141-090-0035 (12)(c)*

The closest NOAA climate data[2] is "LOOKOUT POINT DAM, OR". The growing season (with temperatures above 32 F) for this area is between approximately 245 and 264 days long, lasting from 3/12 through 12/1 (WETS, USDA 2018-6-5, AgACIS). Average annual temperature range is between 40.7 and 64.2 F and annual precipitation is typically between 40.07 and 49.24 inches (WETS, USDA 2018).

Wetland delineation field work was conducted on March 19, 2019 (photos only, no sampling), May 1, 2019 (sampling) and July 9, 2019 (GPS mapping/photos only). There was no precipitation one day prior to or on the day of the second site visit. There was 0.72" precipitation recorded in the two weeks prior to the second SA visit. There was no precipitation one day prior to or on the day of the third site visit. There was 0.28" precipitation recorded in the two weeks prior to the third SA visit. Precipitation is described below and summarized in the table that follows. Please see Appendix D for LOOKOUT POINT DAM, OR- WETS table and weather information obtained from the National Weather Service (ACIS)

Month	Average Precipitation (Inches)[1]	30% chance will have		Observed Precipitation (Inches)[2]	Percent of Normal
		Less Than (Inches) [1]	More Than (Inches)[1]		

February	4.75	3.32	5.65	5.62	118
March	5.47	4.26	6.33	2.44	**45**
April	4.36	3.65	4.91	9.78	**224**
May	3.30	2.23	3.94	2.00	61
June	1.77	0.99	2.16	0.79	**45**
July	0.42	0.11	0.46	0.22	**52**

[1] WETS table for LOOKOUT POINT DAM, OR (1997-2017)
[2] Observed conditions found at http://agacis.rcc-acis.org/?fips=41039 (LOOKOUT POINT DAM)

D) **Methods** (site-specific methods for field investigation, determining wetland boundaries and geographic extent of other waters) *OAR141-090-0030, OAR141-090-0035 (7)(a-g), (8), (9), (10)(a-b), (11)(a-c), (12)(e), (14)(a-i), (15), (16), (17)(a-e)*

Ten standard sample plots (SP1U-SP10W) were positioned within the SA to help identify wetland boundaries or a lack thereof. The on-site investigation was performed as specified in the Corps Manual (ACOE 1987) and all applicable supplements and guidance documents. The SA was initially walked (March 19) to gain familiarity with existing SA conditions. Data was collected at ten points onsite; observations and notes were made regarding vegetative cover, visible hydrology or indicators of wetland hydrology and soil characteristics. Soils were sampled during May and July of 2019 and growth was evident within shrub, tree and herbaceous strata.

Visual observations were used to estimate percent vegetative cover for each plant species observed within a 6-ft. radius for herbaceous cover and a radius of 30 feet for trees and shrubs. Plot shape was typically a semicircle due to the subtle vegetative differences along the wetland boundary. Soil pits were dug with at least 18-inch depth to observe and describe the soil type, to observe subsurface hydrologic conditions, and to confirm or refute the assigned soil type description contained in the Soil Survey for Lane County. Additional observations were made on soil texture, moisture content, and the presence or lack of hydric indicators.

Delineation field work was conducted on March 19, May 1 and July 9, 2019 by Wetlands and Wildlife LLC. Field observations were recorded on standard data forms (Please see Appendix B). The wetland boundary was surveyed in 2019 using a sub-meter grade accuracy GPS, Accuracy for Figure 6 is +/-1 meter. Contour data was created using 2008/2009 DOGAMI point cloud data. This topography helped refine the wetland boundary. Since anthropogenic changes have occurred, topography wasn't as well correlated with wetland boundaries as it might have been 10-15 years earlier. This is primarily due to the change of timing and volume of water entering and leaving the site caused by excavation of a new channel around 2005.

E) **Description of All Wetlands and Other Non-Wetland Waters** (their characteristics and boundaries, e.g. whether they extend offsite) *OAR141-090-0035 (2), (7)(a-g), (8), (9), (10)(a-b), (11)(a-c), (12)(e), (14)(a-i), (15), (16), (17)(a-e)*

The SA consists of 0.226 acres of potential wetlands.

Wetland 1 (W1) is a 0.159-acre palustrine emergent (PEM) wetland. This feature connects with D1 at the southern end of the SA and hydrology is maintained from seasonal flooding and direct precipitation. Flow patterns are evident within W1 although the historic bed and banks have been revegetated given a lack of normal flows which are now primarily constrained by D1. W1 flow continues offsite as a channelized urban stream and outfalls to Dexter Lake.

Ditch 1 (D1) is a 0.057-acre palustrine unconsolidated bottom (PUB) water which was created primarily in upland with exceptions for the channel as it enters from the northern SA boundary and where it crosses W2. This feature was excavated approximately 4 feet deep and is approximately 4-6 feet wide through most of the SA. D1 was excavated between 2005 and 2008, concurrent with realignment of a drainage to the east.

Wetland 2 (W2) is a 0.010-acre palustrine emergent (PEM) wetland which appears to have been formed by excavating a natural channel (widening) to accommodate both natural flows and stormwater inputs from increasing residential development. It is estimated that this feature was likely forested scrub-shrub(pss) wetland before it was modified (2005-2008). There are currently no significant trees or shrubs within this feature and a berm has been formed on both the north and south side of the feature.

Deviation from LWI or NWI (if any, wetland determination data or explanation required.) *OAR141-090-0035 (7)(e), (12)(f)*

The LWI, NWI and two separate determination documents show similar wetland extents. Three significant modifications occurred within the SA including fill for Damon Street right of way, fill to channelize W2 and excavation of D1. Excavation of D1 appears to have altered wetland hydrology more than any other activity. Fill within the Damon Street right of way appears have reduced wetland area, although excavation of D1 appears to have eliminated hydrology to the right of way when combined with a berm of fill modifying drainage patterns through W2.

G) **Mapping Method** (including mapping precision estimate) *OAR141-090-0035 (3), (5), (11)(a-c), (12)(f),(g), (13)(a-g), (14)(a-i), (15), (16)*

Wetland boundaries were determined using the field investigation methods described above (please see Section D: Methods), hydrology data and local

topography. Plot locations and boundaries were mapped with a survey grade GPS (Arrow). Precision is estimated at 1-meter accuracy for all points and wetland boundaries. Digital survey data was managed by Wetlands and Wildlife LLC using ArcGIS Software. The maps produced are at an approximate scale of 1" = 35' (please see Appendix A: Figure 6).

H) **Additional Information** (i.e., if needed to establish state jurisdiction) *OAR141-090-0035 (9), (10)(a-b), (12)(h)(A-J)*

Fish were not observed onsite during the visits; regardless of the urban condition of the SA, modeled and observed flows /connectivity to the Middle Fork Willamette River makes non-game fish presence likely year around. The excavation of the ditch through the SA have created habitat which sustains hydrology almost year-round in normal water years.

I) **Results and Conclusions** *OAR141-090-0035(12)(i)*

The field study examined the entire SA and the presence or absence of wetland indicators and wetland features within the SA were documented. The field study identified 0.226 acres of potentially jurisdictional wetlands/waters of the state/U.S. All sample points and wetlands are mapped in Appendix A, Figure 6. Connectivity to onsite/offsite wetlands and waters of the U.S. was assessed, and connections to 303d waterbodies (Middle Fork Willamette River/Dexter Reservoir via an unnamed series of ditches and a perennial stream is assumed.

The Department of State Lands and Army Corps of Engineers are likely to take jurisdiction over these onsite wetlands and require a permit for temporary or permanent impacts. Ultimately, the ACOE and DSL will decide the jurisdiction of these wetlands and the validity of this designation and notify the applicant of any permitting needs.

J) **Disclaimer** *OAR141-090-0035(12)(j)*

The following statement is geared towards Department of State Lands preliminary wetland delineation review, although Wetlands and Wildlife LLC also reminds clients that it applies to Army Corps of Engineers report review and concurrence. **Don't assume that agencies will concur with this document until you have received official notice.**

"This report documents the investigation, best professional judgment and conclusions of the investigator. It is correct and complete to the best of my knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at your own risk unless it has been reviewed and approved in writing by the Oregon Department of State Lands in accordance with OAR 141-090-0005 through 141-090-0055."

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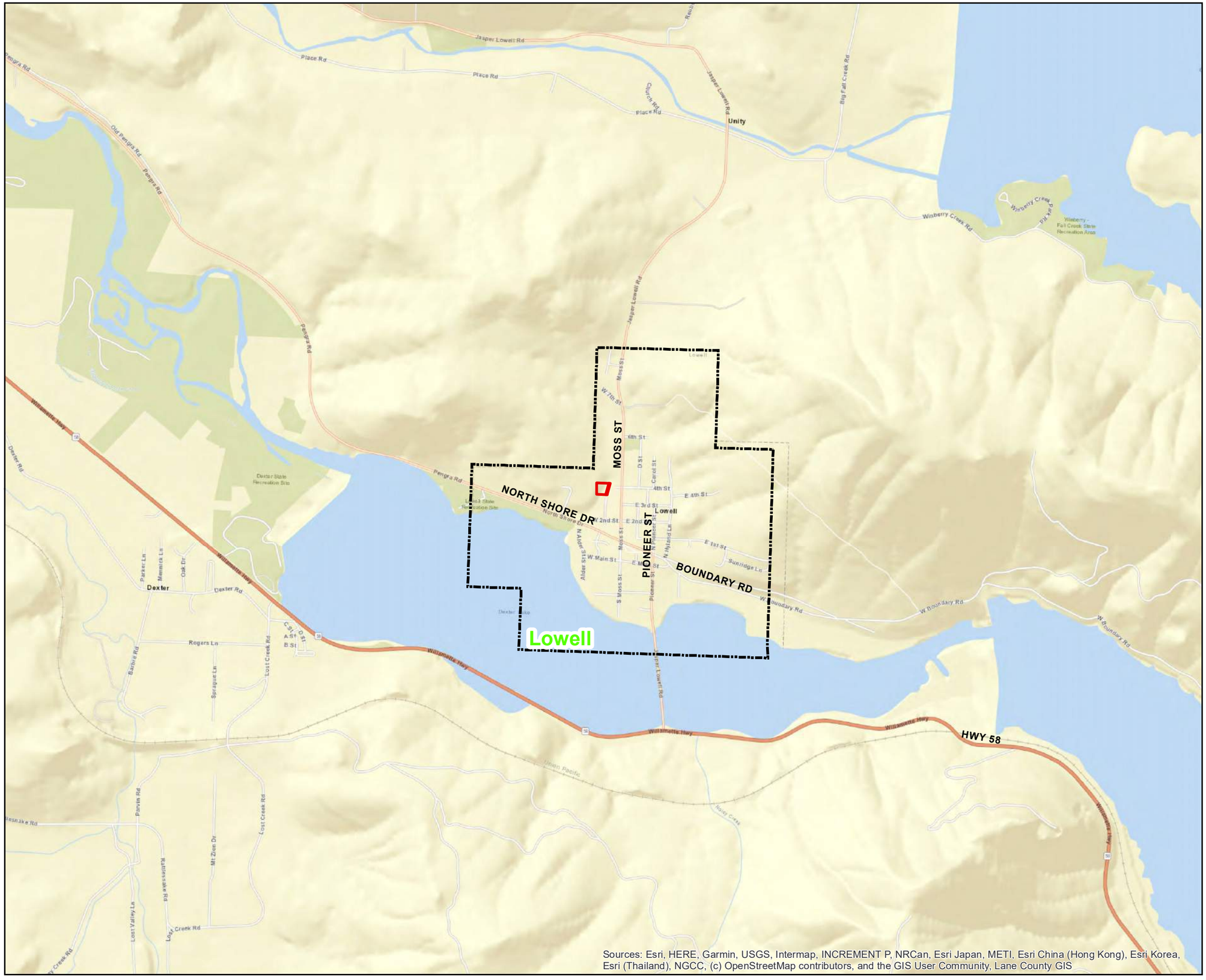
APPENDIX A:
MAPS AND FIGURES



Legend

- SA
- CityLimits

1 inch = 2,000 feet

0 1,000 2,000 Feet

SOURCE

The information on this map was derived from multiple sources. .Questions regarding production of this map can be sent to Brian Meiering: brian@wetlandsandwildlifeLLC.com
Features are mapped to within 1 meter of their true location.

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VICINITY MAP
Tristan Ferguson
19-01-14-22-2301 and Damon St. ROW
Lane County, Oregon

Revisions		
#	Date	Description

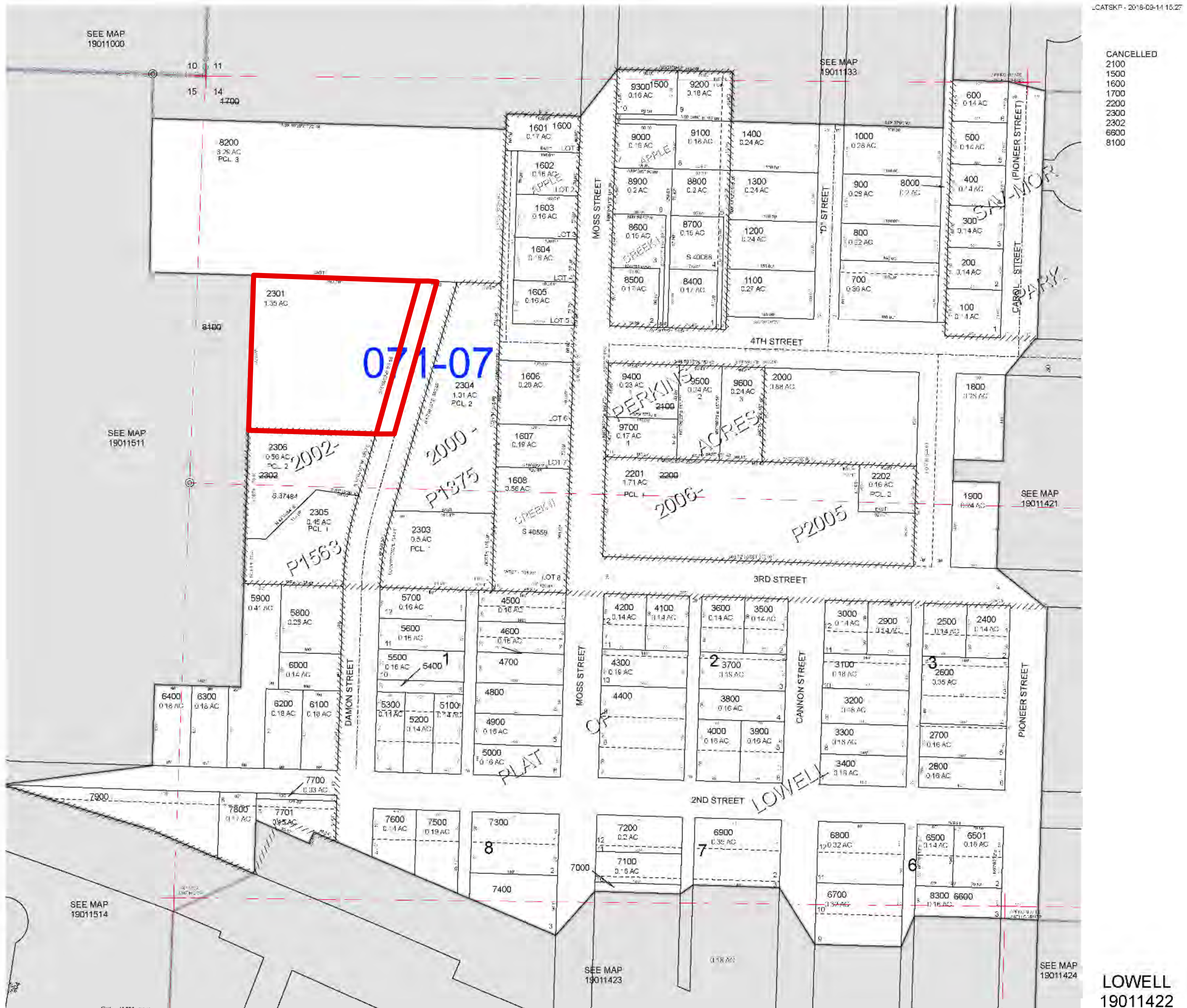
Project Number: 2019-0102
Drawn By: BTM
Checked:
Date: 8/21/2019

Figure **1**

FOR ASSESSMENT AND TAXATION ONLY

N.W.1/4 N.W.1/4 SEC. 14 T.19S. R.1W. W.M.
Lane County

19011422
LOWELL



LOWELL
19011422

Legend

SA

1 inch = 200 feet

0 100 200 Feet

SOURCE

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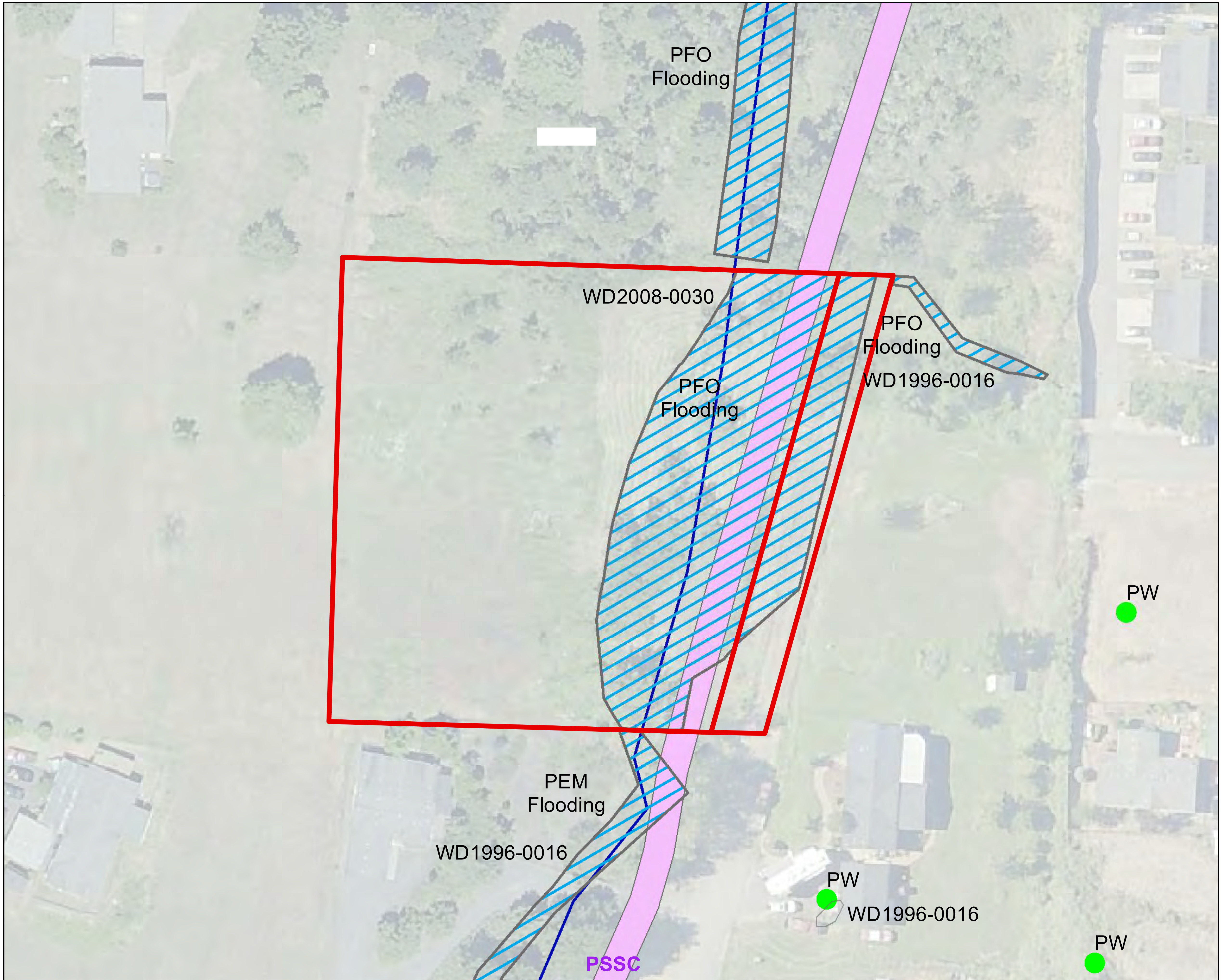
TAXLOT MAP 19011422
Tristan Ferguson
19-01-14-22-2301 and Damon St. ROW
Lane County, Oregon

Revisions		
#	Date	Description

Project Number: 2019-0102
Drawn By BTM
Checked
Date: 3/11/2019

Figure 2



Legend

- SA
- DSL_Wet_Del
- LWI
- NWI
- PW
- Streams

1 inch = 50 feet

0 25 50 Feet

SOURCE

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Road centerlines, taxlots and API courtesy of LCOG.
Contours derived from DOGAMILiDAR Data (NAVD88, Geoid 12A).Questions regarding production of this map can be sent to Brian Meiering: brian@wetlandsandwildlifeLLC.com
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TAXLOT MAP 19011422
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19-01-14-22-2301 and Damon St. ROW
Lane County, Oregon

Revisions

#	Date	Description

Project Number: 2019-0102
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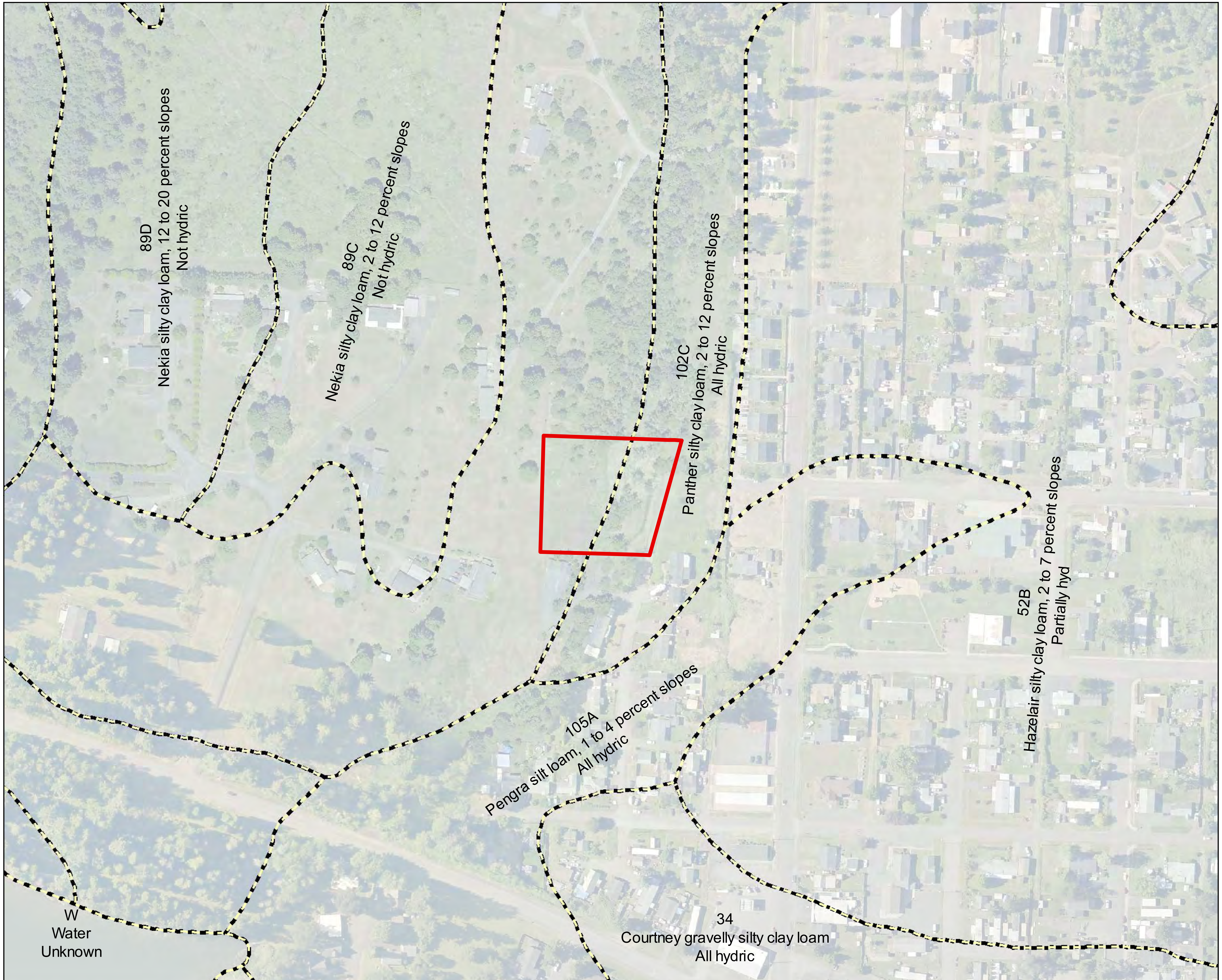
Date: 3/11/2019

Figure **3**



Legend

SA

1 inch = 200 feet

0 25 50

Feet

SOURCE

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Road centerlines, taxlots and API courtesy of LCOG.
Contours derived from DOGAMILiDAR Data (NAVD88, Geoid 12A).Questions regarding production of this map can be sent to Brian Meiering: brian@wetlandsandwildlifeLLC.com
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NRCS SOILS MAP
Tristan Ferguson
19-01-14-22-2301 and Damon St. ROW
Lane County, Oregon

Revisions

#	Date	Description

Project Number: 2019-0102
Drawn By BTM
Checked
Date: 3/11/2019

Figure **4**

2017
LC PICTOGRAPHY

Legend

SA

1 inch = 100 feet
0 50 100
Feet

SOURCE

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Road centerlines, taxlots and API courtesy of LCOG.
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AERIAL PHOTO SERIES
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19-01-14-22-2301 and Damon St. ROW
Lane County, Oregon

Revisions		
#	Date	Description

Project Number: 2019-0102
Drawn By BTM
Checked
Date: 8/21/2019

Figure **5A**

2016 GE

Legend

SA

1 inch = 35 feet

0 17.5 35

Feet

SOURCE

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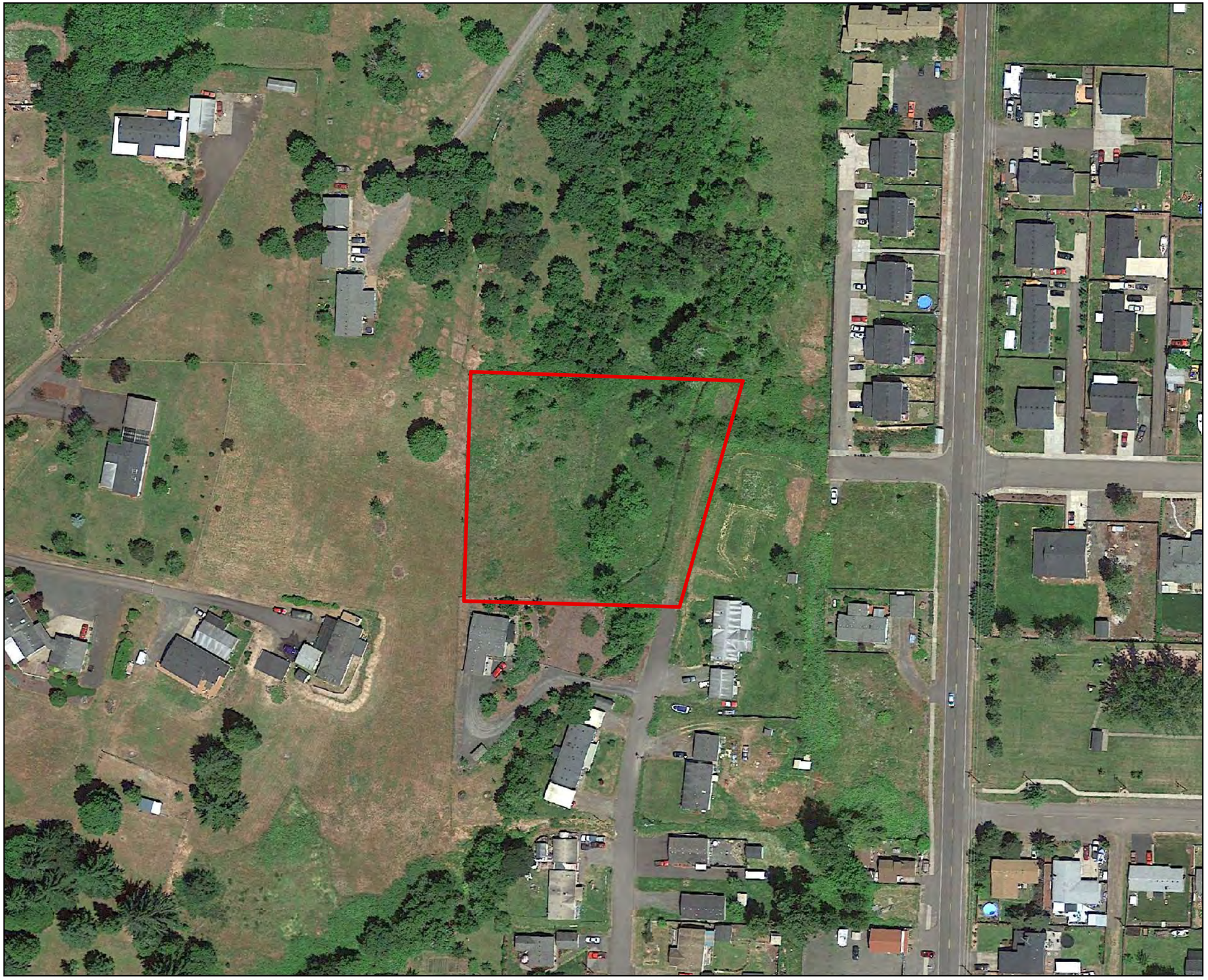
Lane County, Oregon

Revisions

#	Date	Description

Project Number: 2019-0102
Drawn By: BTM
Checked:
Date: 8/21/2019

Figure **5B**



2014 GOOGLE

Legend

SA

1 inch = 100 feet

0 50 100

Feet

SOURCE

The information on this map was derived from multiple sources. Aerial Photos courtesy of Lane County streaming data (2017). Road centerlines, taxlots and API courtesy of LCOG. Questions regarding production of this map can be sent to Brian Meiering: brian@wetlandsandwildlifeLLC.com Features are mapped to within 1 meter of their true location.

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Lane County, Oregon

Revisions

#	Date	Description

Project Number: 2019-0102
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Checked:
Date: 8/21/2019

Figure **5C**

2013 6" (LC)

Legend

SA

1 inch = 100 feet

0 50 100

Feet

SOURCE

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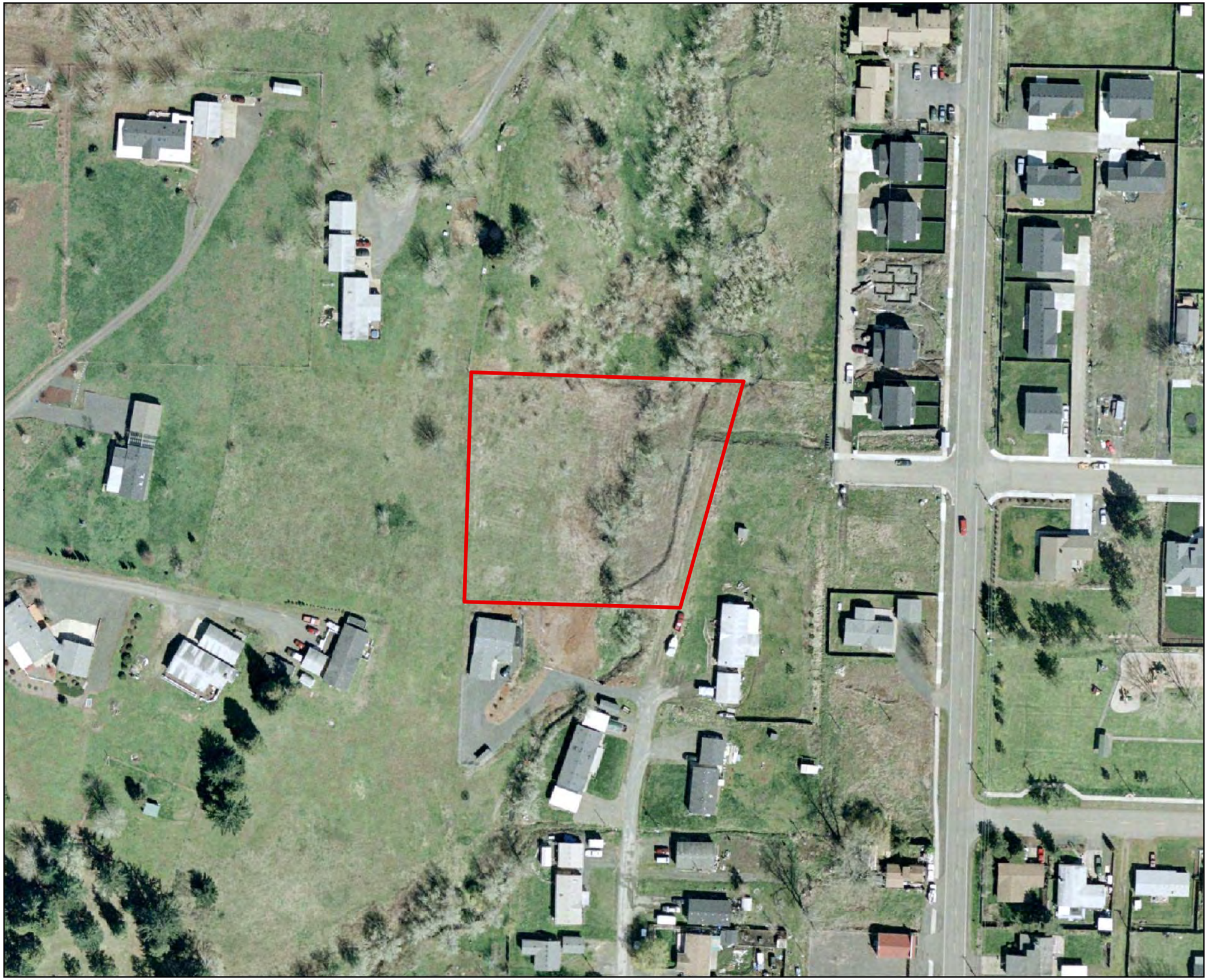
Lane County, Oregon

Revisions

#	Date	Description

Project Number: 2019-0102
Drawn By: BTM
Checked:
Date: 8/21/2019

Figure **5D**



2008 6" (LC)

Legend

SA

1 inch = 100 feet

0 50 100

Feet

SOURCE

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Lane County, Oregon

Revisions		
#	Date	Description

Project Number:	2019-0102
Drawn By	BTM
Checked	
Date:	8/21/2019

Figure **5E**

2005 NAIP

Legend

SA

1 inch = 100 feet

0 50 100 Feet

SOURCE

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Questions regarding production of this map can be sent to Brian Meiering:
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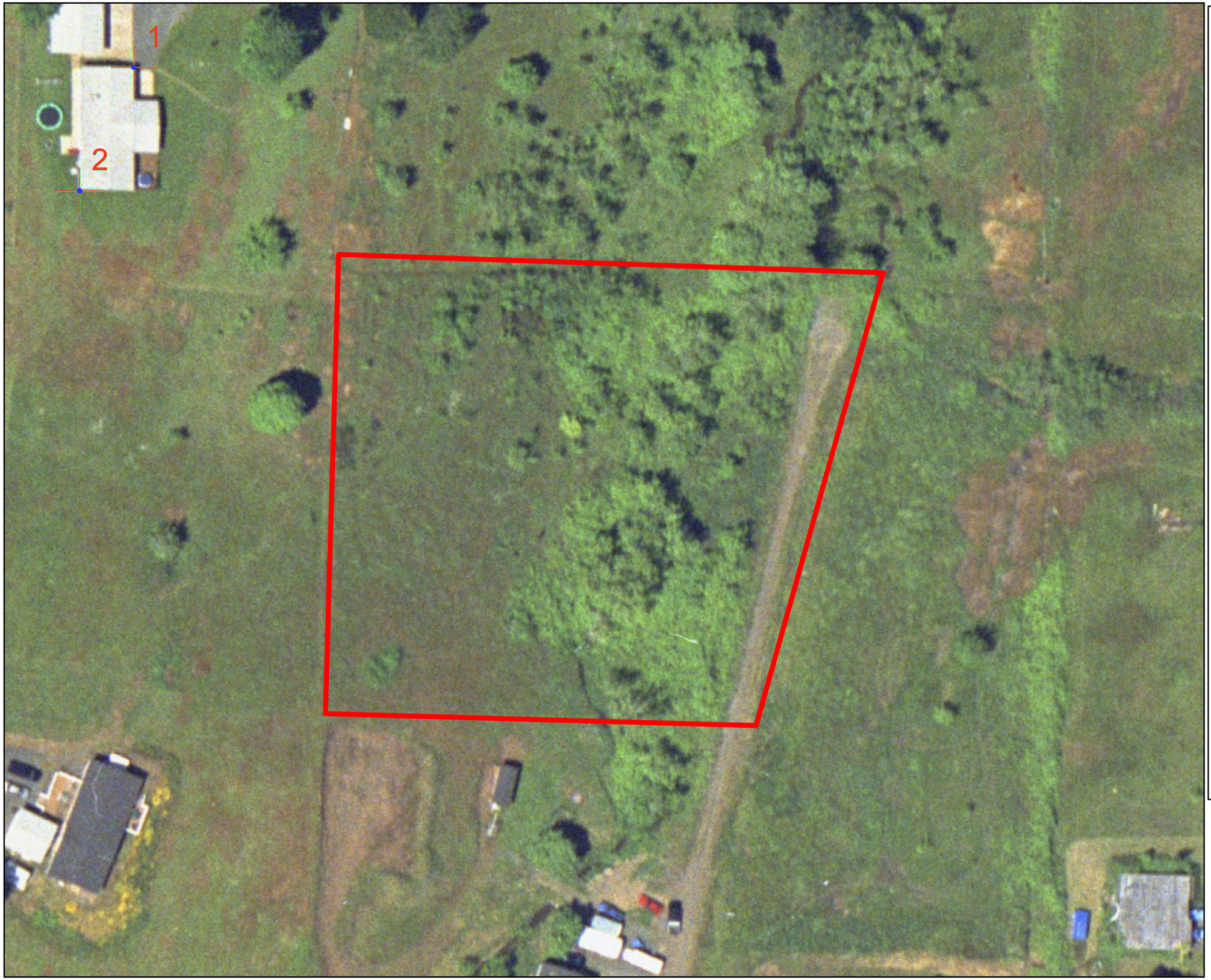
Revisions		
#	Date	Description

Project Number: 2019-0102
Drawn By BTM
Checked
Date: 8/21/2019

Figure 5F



6/1/2000

Legend

SA_

1 inch = 50 feet

SOURCE

The information on this map was derived from multiple sources. Aerial Photos courtesy of Lane County streaming data (Google Earth, 2014). Road centerlines, taxlots and API courtesy of LCOG. Contours derived from DOGAMILiDAR Data (NAVD88, Geoid 12A).Questions regarding production of this map can be sent to Brian Meiering: brian@wetlandsandwildlifeLLC.com
Features are mapped to within 1 meter of their true location.

0 25 50
Feet

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AERIAL PHOTOGRAPHY SERIES MAP
Tristan Ferguson- Lowell, OR
19-01-14-22-2301 and Damon St. ROW
City of Lowell, OR

Revisions

#	Date	Description

Project Number:	0079
Drawn By	BTM
Checked	
Date rev1:	8/21/2019

5G

5/14/1995
USGS

Legend

SA_

1 inch = 101 feet

SOURCE

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0 25 50
Feet

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AERIAL PHOTOGRAPHY SERIES MAP
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19-01-14-22-2301 and Damon St. ROW
City of Lowell, OR

Revisions

#	Date	Description

Project Number:	0079
Drawn By	BTM
Checked	
Date rev1: 8/21/2019	

5H

5/12/79
USGS

Legend

SA_

1 inch = 100 feet

SOURCE

The information on this map was derived from multiple sources. Aerial Photos courtesy of Lane County streaming data (Google Earth, 2014). Road centerlines, taxlots and API courtesy of LCOG. Contours derived from DOGAMILiDAR Data (NAVD88, Geoid 12A).Questions regarding production of this map can be sent to Brian Meiering: brian@wetlandsandwildlifeLLC.com
Features are mapped to within 1 meter of their true location.

0 25 50
Feet

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19-01-14-22-2301 and Damon St. ROW
City of Lowell, OR

Revisions

#	Date	Description

Project Number:	0079
Drawn By	BTM
Checked	
Date rev1:	8/21/2019

5I

6/22/1960
USGS

Legend

SA_

1 inch = 100 feet

SOURCE

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0 25 50
Feet

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AERIAL PHOTOGRAPHY SERIES MAP
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19-01-14-22-2301 and Damon St. ROW
City of Lowell, OR

Revisions

#	Date	Description

Project Number:	0079
Drawn By	BTM
Checked	
Date rev1:	8/21/2019

5J

10/31/49
USGS

Legend

SA_

1 inch = 200 feet

SOURCE

The information on this map was derived from multiple sources. Aerial Photos courtesy of Lane County streaming data (Google Earth, 2014). Road centerlines, taxlots and API courtesy of LCOG. Contours derived from DOGAMILiDAR Data (NAVD88, Geoid 12A).Questions regarding production of this map can be sent to Brian Meiering: brian@wetlandsandwildlifeLLC.com
Features are mapped to within 1 meter of their true location.

0 50 100
Feet

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AERIAL PHOTOGRAPHY SERIES MAP
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19-01-14-22-2301 and Damon St. ROW
City of Lowell, OR

Revisions

#	Date	Description

Project Number: 0079
Drawn By: BTM
Checked:
Date rev1: 8/21/2019

5K

8/31/1947
USGS

Legend

SA_

1 inch = 200 feet

SOURCE

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0 50 100
Feet

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AERIAL PHOTOGRAPHY SERIES MAP
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19-01-14-22-2301 and Damon St. ROW

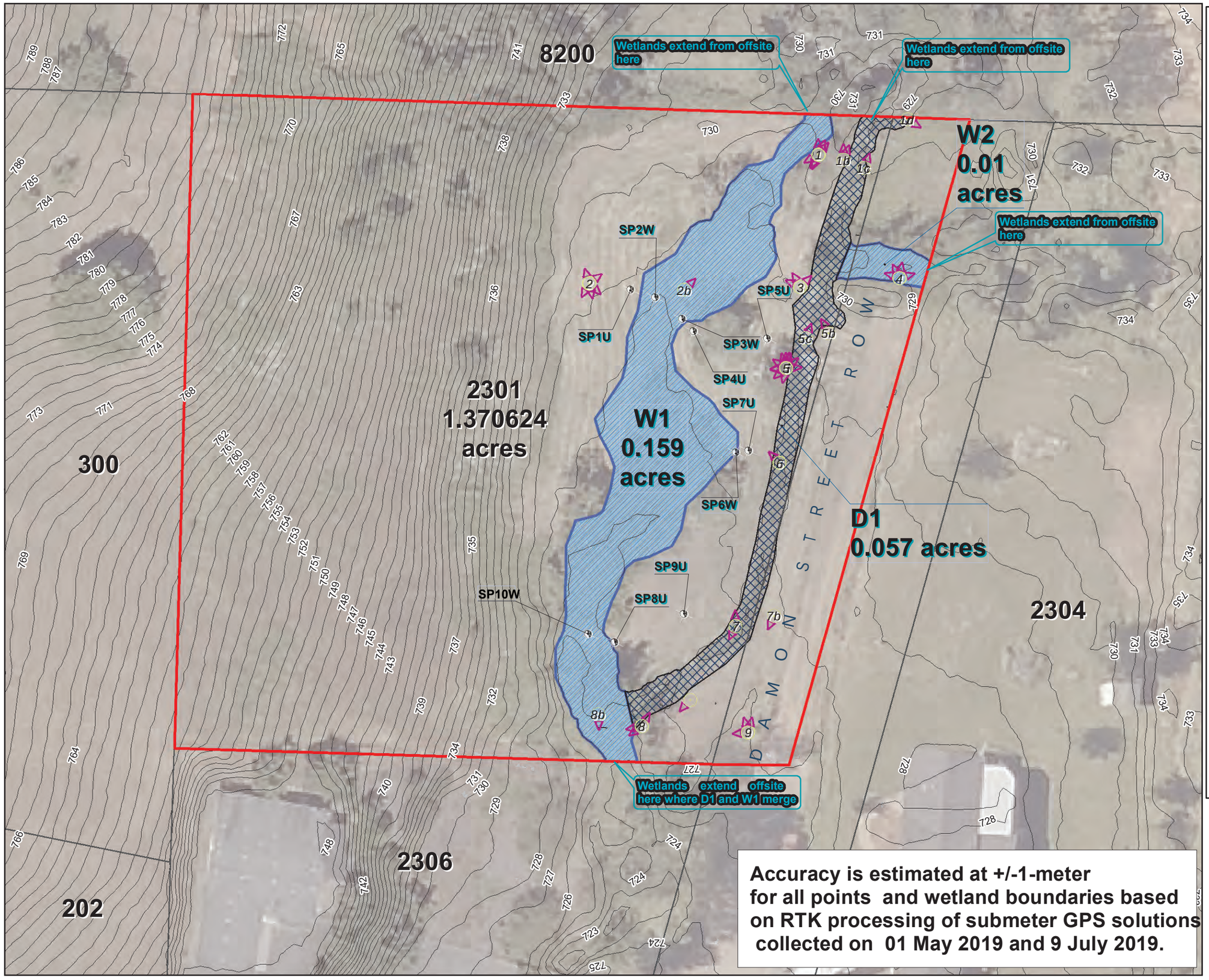
City of Lowell, OR

Revisions

#	Date	Description

Project Number: 0079
Drawn By BTM
Checked
Date rev1: 8/21/2019

5L



Legend

- SA
- Lane County Taxlot (Approx)
- Ditch (D1)
- Wetland (W1, W2)
- 1'Contour
- Ground Level Photograph

NOTICE: REPORTS ARE CONSIDERED DRAFT DOCUMENTS UNTIL REVIEW IS COMPLETED BY DSL. WETLAND MAPS MAY CHANGE AS A RESULT OF DSL REVIEW.

0 35 Feet

1 inch = 35 feet

SOURCE

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Accuracy is estimated at +/-1-meter for all points and wetland boundaries based on RTK processing of submeter GPS solutions collected on 01 May 2019 and 9 July 2019.

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Wetland Delineation Map
Ferguson Lot 2301- Lowell, OR
Maptaxlot:1901142202301

City of Lowell, OR

Revisions

#	Date	Description

Project Number: 0102
Drawn By: BTM
Checked:
Date rev1: 9/19/2019

6

APPENDIX B:
DATA SHEETS

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Ferguson lot 2301 City/County: Lowell, OR Sampling Date: May 1, 2019
Applicant/Owner: Tristan Ferguson State: OR Sampling Point: SP1U
Investigator(s): Meiering Section, Township, Range: 14,19S,01W
Landform (hillslope, terrace, etc.): Flats terrace Local relief (concave, convex, none): CONVEX/FLATS Slope (%): 0-6%
Subregion (LRR): A Lat: 43.922817 Long: -122.784789 Datum: NAD83 2011 (Lat/Lon Decimal Degrees)
Soil Map Unit Name: 102C, PANTHER SILTY CLAY LOAM, 2 TO 12 PERCENT SLOPES NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)
Are Vegetation ____ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation x , Soil ☑ , or Hydrology ☑ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No ____	**Is the Sampled Area within a Wetland?**	**Yes** ____ **No** x
Hydric Soil Present?	Yes x	No ____		
Wetland Hydrology Present?	Yes ____	No x		

Remarks:
Paired with SP2 to document the western extent of W1. Please note that a preliminary March 19, 2019 site visit didn't observe a water table along this topographic position. All three wetland criteria are noted as naturally problematic due to the alteration of hydrology circa 2005 and the above average precipitation in April 2019.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. NONE	0	☐	
2.	0	☐	
3.	0	☐	
4.	0	☐	
	0 = Total Cover		

Sapling/Shrub Stratum (Plot size: 30 ft)			
1. NONE	0	☐	
2.	0	☐	
3.	0	☐	
4.	0	☐	
5.	0	☐	
	0 = Total Cover		

Herb Stratum (Plot size: 6 ft)			
1. Alopecurus pratensis	100	✓	FAC
2. Camassia cf quamash	10	✓	FACW
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
	110 = Total Cover		

Woody Vine Stratum (Plot size: 12 ft)		
1. NONE		☐
2.		☐
	0 = Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A = NaN

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** x **No** ____

Remarks:

SOIL

Sampling Point: SP1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	10YR3/2	100	--	--	--	--	SiCL	--
12-18	10YR4/2	98	10YR4/4	2	RM	M	SiC	see remarks below
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** X **No**

Remarks:

SICL becomes SiC at approximately 13" bg and soil peds become small and rounded. This soil meets the minimum requirements for a hydric soil based on 2% distinct mottling beginning 12" bg on a matrix of 10YR4/2.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): none

Water Table Present? Yes ☐ No ☑ Depth (inches): none

Saturation Present? (includes capillary fringe) Yes ☑ No ☐ Depth (inches): 18"bg

Wetland Hydrology Present? **Yes** **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation appears to have occurred around 13-14"bg during the early growing season based on soil structure change. It is assumed that this plot has relict hydric soils and no longer maintains hydrology under normal circumstances due to the altered site hydrology. Hydrology is assumed to occur here during significant flood events, although an Early May visit indicated that normal 2-yr flood events wouldn't support hydrology at this location. Please note that a preliminary March 19, 2019 site visit documented saturation to 14"bg and didn't observe a water table along this topographic position to 18"bg.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Ferguson lot 2301 City/County: Lowell, OR Sampling Date: May 1, 2019
Applicant/Owner: Tristan Ferguson State: OR Sampling Point: SP2W
Investigator(s): Meiering Section, Township, Range: 14,19S,01W
Landform (hillslope, terrace, etc.): Historic stream channel depression Local relief (concave, convex, none): concave Slope (%): 5%
Subregion (LRR): A Lat: 43.922817 Long: -122.784789 Datum: NAD83 2011 (Lat/Lon Decimal Degrees)
Soil Map Unit Name: 102C, PANTHER SILTY CLAY LOAM, 2 TO 12 PERCENT SLOPES NWI classification: PSSC
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes x No ☐
Are Vegetation x, Soil ☑, or Hydrology ☑ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No ☐	**Is the Sampled Area within a Wetland?**	**Yes** x **No** ☐
Hydric Soil Present?	Yes x	No ☐		
Wetland Hydrology Present?	Yes x	No ☐		

Remarks:
Paired with SP1 to document the western extent of W1. Please note that a preliminary March 19, 2019 site visit also observed a water table along this topographic position. All three wetland criteria are noted as naturally problematic due to the alteration of hydrology circa 2005 and the above average precipitation in April 2019.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. NONE	0	☐	
2.	0	☐	
3.	0	☐	
4.	0	☐	
	0 = Total Cover		

Sapling/Shrub Stratum (Plot size: 30 ft)			
1. NONE	0	☐	
2.	0	☐	
3.	0	☐	
4.	0	☐	
5.	0	☐	
	0 = Total Cover		

Herb Stratum (Plot size: 6 ft)			
1. Alopecurus pratensis	20	✓	FAC
2. Oenanthe sarmentosa	5	✓	OBL
3. Mentha pulegium	10	✓	OBL
4.		☐	
5.		☐	
6.		☐	
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
	35 = Total Cover		

Woody Vine Stratum (Plot size: 12 ft)		
1. NONE	☐	
2.	☐	
	0 = Total Cover	

% Bare Ground in Herb Stratum 50

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A = NaN

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** x **No** ☐

Remarks:

SOIL

Sampling Point: SP2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-1	10YR3/2	60	10YR5/6	40	C	M,PL	SiC	5%OR
1-12	10YR4/2	90	10YR4/4	10	C	M	SiC	
12-18	10YR4/2	50	10YR4/4	5	C	M	C	--
12-18	--	--	10YR3/1	45	C	M	C	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type: Clay

Depth (inches): begins 12"bg

Hydric Soil Present? **Yes** X **No** ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☑ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☑ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☑	Depth (inches):	none
Water Table Present?	Yes	☑	No	☐	Depth (inches):	10"bg
Saturation Present? (includes capillary fringe)	Yes	☑	No	☐	Depth (inches):	7"bg

Wetland Hydrology Present? **Yes** X **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Please note that a preliminary March 19, 2019 site visit documented saturation to surface with a water table at 4"bg. Drift deposits were evident during May visit and not during March visit, indicating that the swale flooded during brief high April flows. This is a historic channel which is now cut off from primary surface flow but obtains consistent hydrology for wetland conditions. Surface flow through this swale is limited to flood events.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Ferguson lot 2301 City/County: Lowell, OR Sampling Date: May 1, 2019
Applicant/Owner: Tristan Ferguson State: OR Sampling Point: SP3W
Investigator(s): Meiering Section, Township, Range: 14,19S,01W
Landform (hillslope, terrace, etc.): Historic stream channel depression Local relief (concave, convex, none): concave Slope (%): 5%
Subregion (LRR): A Lat: 43.922817 Long: -122.784789 Datum: NAD83 2011 (Lat/Lon Decimal Degrees)
Soil Map Unit Name: 102C, PANTHER SILTY CLAY LOAM, 2 TO 12 PERCENT SLOPES NWI classification: PSSC
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes x No ☐
Are Vegetation x, Soil ☑, or Hydrology ☑ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	x	No	
Hydric Soil Present?	Yes	x	No	
Wetland Hydrology Present?	Yes	x	No	

Is the Sampled Area within a Wetland? Yes x No

Remarks:
Paired with SP4 to document the eastern extent of W1. Please note that a preliminary March 19, 2019 site visit also observed a water table along this topographic position. All three wetland criteria are noted as naturally problematic due to the alteration of hydrology circa 2005 and the above average precipitation in April 2019.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia	20	✓	FACW
2.	0		
3.	0		
4.	0		
	20	= Total Cover	

Sapling/Shrub Stratum (Plot size: 30 ft)			
1. NONE	0		
2.	0		
3.	0		
4.	0		
5.	0		
	0	= Total Cover	

Herb Stratum (Plot size: 6 ft)			
1. Alopecurus pratensis	60	✓	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	60	= Total Cover	

Woody Vine Stratum (Plot size: 12 ft)			
1. NONE			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 40

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A = NaN

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☑ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0[1]
☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ 5 - Wetland Non-Vascular Plants[1]
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No

Remarks:

SOIL

Sampling Point: SP3W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR3/2	80	10YR5/6	20	C	M,PL	SiC	2%OR
4-12	10YR4/2	95	10YR4/4	5	C	M	SiC	
12-18	10YR4/2	60	10YR4/4	40	C	M	C	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type: Clay

Depth (inches): begins 12"bg

Hydric Soil Present? Yes X No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☑ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☑ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☑	Depth (inches):	none
Water Table Present?	Yes	☑	No	☐	Depth (inches):	12"bg
Saturation Present? (includes capillary fringe)	Yes	☑	No	☐	Depth (inches):	9"bg

Wetland Hydrology Present? Yes X No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Please note that a preliminary March 19, 2019 site visit documented saturation to surface with a water table at 2"bg. Drift deposits were evident during May visit and not during March visit, indicating that the swale flooded during brief high April flows. This is a historic channel which is now cut off from primary surface flow but obtains consistent hydrology for wetland conditions. Surface flow through this swale is limited to flood events.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Ferguson lot 2301 City/County: Lowell, OR Sampling Date: May 1, 2019
Applicant/Owner: Tristan Ferguson State: OR Sampling Point: SP4U
Investigator(s): Meiering Section, Township, Range: 14,19S,01W
Landform (hillslope, terrace, etc.): Flats terrace Local relief (concave, convex, none): CONVEX/FLATS Slope (%): 0-6%
Subregion (LRR): A Lat: 43.922817 Long: -122.784789 Datum: NAD83 2011 (Lat/Lon Decimal Degrees)
Soil Map Unit Name: 102C, PANTHER SILTY CLAY LOAM, 2 TO 12 PERCENT SLOPES NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes x No ☐
Are Vegetation x, Soil ☑, or Hydrology ☑ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No ☐	**Is the Sampled Area within a Wetland?**	**Yes ☐ No x**
Hydric Soil Present?	Yes x	No ☐		
Wetland Hydrology Present?	Yes ☐	No x		

Remarks:
Paired with SP3 to document the eastern extent of W1. Please note that a preliminary March 19, 2019 site visit didn't observe a water table along this topographic position. All three wetland criteria are noted as naturally problematic due to the alteration of hydrology circa 2005 and the above average precipitation in April 2019.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia	5	✓	FACW
2.	0		
3.	0		
4.	0		
	5	= Total Cover	

Sapling/Shrub Stratum (Plot size: 30 ft)			
1. NONE	0		
2.	0		
3.	0		
4.	0		
5.	0		
	0	= Total Cover	

Herb Stratum (Plot size: 6 ft)			
1. Alopecurus pratensis	100	✓	FAC
2. Camassia cf quamash	10		FACW
3. Geranium dissectum	10		NOL
4. Taraxacum officinale	10		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	130	= Total Cover	

Woody Vine Stratum (Plot size: 12 ft)			
1. NONE			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A = NaN

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☑ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0[1]
☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ 5 - Wetland Non-Vascular Plants[1]
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** x **No** ☐

Remarks:
Fraxinus in plot established before channel modification

SOIL

Sampling Point: SP4U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-14	10YR3/2	99	10YR5/6	1	C	M	SiCL	--
14-18	10YR4/2	98	10YR4/4	2	C	M	SiC	see remarks below
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** X **No**

Remarks:

SICL becomes SiC at approximately 14" bg and soil peds become small and rounded, but dry to 18".

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☑	Depth (inches):	none
Water Table Present?	Yes	☐	No	☑	Depth (inches):	none
Saturation Present? (includes capillary fringe)	Yes	☐	No	☑	Depth (inches):	none

Wetland Hydrology Present? **Yes** **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

It is assumed that this plot has relict hydric soils and no longer maintains hydrology under normal circumstances due to the altered site hydrology. Hydrology is assumed to occur here during significant flood events, although an early May visit indicated that normal 2-yr flood events wouldn't support hydrology at this location. Please note that a preliminary March 19, 2019 site visit documented saturation to 18"bg and didn't observe a water table along this topographic position to 18"bg.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Ferguson lot 2301 City/County: Lowell, OR Sampling Date: May 1, 2019
Applicant/Owner: Tristan Ferguson State: OR Sampling Point: SP5U
Investigator(s): Meiering Section, Township, Range: 14,19S,01W
Landform (hillslope, terrace, etc.): Flats terrace Local relief (concave, convex, none): CONVEX/FLATS Slope (%): 0-6%
Subregion (LRR): A Lat: 43.922817 Long: -122.784789 Datum: NAD83 2011 (Lat/Lon Decimal Degrees)
Soil Map Unit Name: 102C, PANTHER SILTY CLAY LOAM, 2 TO 12 PERCENT SLOPES NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)
Are Vegetation ____ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation x , Soil ☑ , or Hydrology ☑ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	____	No	x
Hydric Soil Present?	Yes	x	No	____
Wetland Hydrology Present?	Yes	____	No	x

Is the Sampled Area within a Wetland? Yes ____ No x

Remarks:
Plot established in area mapped as wetland in 2008 (see cover page of report) Please note that a preliminary March 19, 2019 site visit didn't observe a water table along this topographic position. All three wetland criteria are noted as naturally problematic due to the alteration of hydrology circa 2005 and the above average precipitation in April 2019.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia	40	✓	FACW
2.	0		
3.	0		
4.	0		
	40	= Total Cover	

Sapling/Shrub Stratum (Plot size: 30 ft)			
1. NONE	0		
2.	0		
3.	0		
4.	0		
5.	0		
	0	= Total Cover	

Herb Stratum (Plot size: 6 ft)			
1. Schedonorus arundinaceus	100	✓	FAC
2. Taraxacum officinale	20	✓	FACU
3. Daucus carota	20	✓	FACU
4. Hypochaeris radicata	10		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	150	= Total Cover	

Woody Vine Stratum (Plot size: 12 ft)			
1. NONE			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	100	x 3 =	300
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	190 (A)		580 (B)

Prevalence Index = B/A = 3.052631578947368

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☐ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0[1]
☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ 5 - Wetland Non-Vascular Plants[1]
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No x

Remarks:
Fraxinus in plot established before channel modification

SOIL

Sampling Point: SP5U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-16	10YR3/2	98	10YR5/6	2	C	M	SiCL	--
16-20	10YR4/2	98	10YR4/4	2	C	M	SiC	see remarks below
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** X **No**

Remarks:

SICL becomes SiC at approximately 15" bg and soil peds become small and rounded, but dry to 20".

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☑	Depth (inches): none
Water Table Present?	Yes	☐	No	☑	Depth (inches): none
Saturation Present? (includes capillary fringe)	Yes	☐	No	☑	Depth (inches): none

Wetland Hydrology Present? **Yes** **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

It is assumed that this plot has relict hydric soils and no longer maintains hydrology under normal circumstances due to the altered site hydrology. Hydrology is assumed to occur here during significant flood events, although an early May visit indicated that normal 2-yr flood events wouldn't support hydrology at this location. Please note that a preliminary March 19, 2019 site visit documented saturation to 18"bg and didn't observe a water table along this topographic position to 18"bg.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Ferguson lot 2301 City/County: Lowell, OR Sampling Date: May 1, 2019
Applicant/Owner: Tristan Ferguson State: OR Sampling Point: SP6W
Investigator(s): Meiering Section, Township, Range: 14,19S,01W
Landform (hillslope, terrace, etc.): Historic Channel bottom Local relief (concave, convex, none): CONCAVE/flat Slope (%): <1%
Subregion (LRR): A Lat: 43.922817 Long: -122.784789 Datum: NAD83 2011 (Lat/Lon Decimal Degrees)
Soil Map Unit Name: 102C, PANTHER SILTY CLAY LOAM, 2 TO 12 PERCENT SLOPES NWI classification: PSSC
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)
Are Vegetation ____ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation ____ , Soil ☐ , or Hydrology ☑ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	x	No	
Hydric Soil Present?	Yes	x	No	
Wetland Hydrology Present?	Yes	x	No	

Is the Sampled Area within a Wetland? Yes x No ____

Remarks:
Plot paired with SP7 to establish eastern boundary of W1. Plot established in area mapped as wetland in 2008 (see cover page of report) Please note that a preliminary March 19, 2019 site visit observed surface water at this locale. Hydrology noted as naturally problematic due to the alteration of hydrology circa 2005 and the above average precipitation in April 2019.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia	60	✓	FACW
2.	0		
3.	0		
4.	0		
	60	= Total Cover	

Sapling/Shrub Stratum (Plot size: 30 ft)			
1. NONE	0		
2.	0		
3.	0		
4.	0		
5.	0		
	0	= Total Cover	

Herb Stratum (Plot size: 6 ft)			
1. Alopecurus pratensis	50	✓	FAC
2. Nasturtium officinale	5	✓	OBL
3. Rubus armeniacus	10	✓	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	65	= Total Cover	

Woody Vine Stratum (Plot size: 12 ft)			
1. NONE			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 35

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A = NaN

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☑ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0[1]
☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ 5 - Wetland Non-Vascular Plants[1]
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No ____

Remarks:

SOIL

Sampling Point: SP6W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-10	10YR3/2	90	10YR4/4	100	C	M,PL	SiC	2%OR
10-14	10YR4/2	90	10YR4/4	10	C	M	SiC	see remarks below
14-18	10YR4/2	100	--	--	--	--	C	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type: Clay

Depth (inches): Begins 14"bg

Hydric Soil Present? **Yes** X **No** ☐

Remarks:

SiC becomes Clay at approximately 14"bg

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☑ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☑ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☑	Depth (inches):	none
Water Table Present?	Yes	☑	No	☐	Depth (inches):	12"bg
Saturation Present? (includes capillary fringe)	Yes	☑	No	☐	Depth (inches):	7"bg

Wetland Hydrology Present? **Yes** X **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Please note that a preliminary March 19, 2019 site visit documented surface saturation at this locale.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Ferguson lot 2301 City/County: Lowell, OR Sampling Date: May 1, 2019
Applicant/Owner: Tristan Ferguson State: OR Sampling Point: SP7U
Investigator(s): Meiering Section, Township, Range: 14,19S,01W
Landform (hillslope, terrace, etc.): Flats terrace Local relief (concave, convex, none): CONVEX/FLATS Slope (%): 0-6%
Subregion (LRR): A Lat: 43.922817 Long: -122.784789 Datum: NAD83 2011 (Lat/Lon Decimal Degrees)
Soil Map Unit Name: 102C, PANTHER SILTY CLAY LOAM, 2 TO 12 PERCENT SLOPES NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)
Are Vegetation ____ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation x , Soil ☑ , or Hydrology ☑ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No ____	**Is the Sampled Area within a Wetland?**	**Yes** ____ **No** x
Hydric Soil Present?	Yes x	No ____		
Wetland Hydrology Present?	Yes ____	No x		

Remarks:
Plot paired with SP6 to establish eastern boundary of W1. Plot established in area mapped as wetland in 2008 (see cover page of report) Please note that a preliminary March 19, 2019 site visit didn't observe a water table along this topographic position. All three wetland criteria are noted as naturally problematic due to the alteration of hydrology circa 2005 and the above average precipitation in April 2019.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia	10	✓	FACW
2.	0		
3.	0		
4.	0		
	10	= Total Cover	

Sapling/Shrub Stratum (Plot size: 30 ft)			
1. NONE	0		
2.	0		
3.	0		
4.	0		
5.	0		
	0	= Total Cover	

Herb Stratum (Plot size: 6 ft)			
1. Schedonorus arundinaceus	50	✓	FAC
2. Alopecurus pratensis	30	✓	FAC
3. Daucus carota	20	✓	FACU
4. Hypochaeris radicata	10		FACU
5. Gallium aparine	5		FACU
6.			
7.			
8.			
9.			
10.			
11.			
	115	= Total Cover	

Woody Vine Stratum (Plot size: 12 ft)			
1. NONE			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	50	x 3 =	150
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	95 (A)		310 (B)

Prevalence Index = B/A = 3.263157894736842

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☐ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0[1]
☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ 5 - Wetland Non-Vascular Plants[1]
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** x **No** ____

Remarks:
Fraxinus in plot established before channel modification

SOIL

Sampling Point: SP7U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	10YR3/2	98	10YR5/6	2	C	M	SiCL	--
12-15	10YR3/2	95	10YR4/4	5	C	M	SiC	see remarks below
15-18	10YR4/2	100	--	--	--	--	SiC	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** X **No**

Remarks:

SICL becomes SiC at approximately 14" bg and soil peds become small and rounded, but dry to 18".

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): none

Water Table Present? Yes ☐ No ☑ Depth (inches): none

Saturation Present? (includes capillary fringe) Yes ☐ No ☑ Depth (inches): none

Wetland Hydrology Present? **Yes** **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

It is assumed that this plot has relict hydric soils and no longer maintains hydrology under normal circumstances due to the altered site hydrology. Hydrology is assumed to occur here during significant flood events, although an early May visit indicated that normal 2-yr flood events wouldn't support hydrology at this location. Please note that a preliminary March 19, 2019 site visit documented saturation to 18"bg and didn't observe a water table along this topographic position to 18"bg.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Ferguson lot 2301 City/County: Lowell, OR Sampling Date: May 1, 2019
Applicant/Owner: Tristan Ferguson State: OR Sampling Point: SP8U
Investigator(s): Meiering Section, Township, Range: 14,19S,01W
Landform (hillslope, terrace, etc.): Flats terrace Local relief (concave, convex, none): CONVEX/FLATS Slope (%): 0-2%
Subregion (LRR): A Lat: 43.922817 Long: -122.784789 Datum: NAD83 2011 (Lat/Lon Decimal Degrees)
Soil Map Unit Name: 102C, PANTHER SILTY CLAY LOAM, 2 TO 12 PERCENT SLOPES NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)
Are Vegetation ____ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation x , Soil ☑ , or Hydrology ☑ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No ____	**Is the Sampled Area within a Wetland?**	**Yes** ____ **No** x
Hydric Soil Present?	Yes x	No ____		
Wetland Hydrology Present?	Yes ____	No x		

Remarks:
Plot paired with SP6 to establish eastern boundary of W1. Plot established in area mapped as wetland in 2008 (see cover page of report) Please note that a preliminary March 19, 2019 site visit didn't observe a water table along this topographic position. All three wetland criteria are noted as naturally problematic due to the alteration of hydrology circa 2005 and the above average precipitation in April 2019.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia	30	✓	FACW
2.	0		
3.	0		
4.	0		
	30	= Total Cover	

Sapling/Shrub Stratum (Plot size: 30 ft)			
1. NONE	0		
2.	0		
3.	0		
4.	0		
5.	0		
	0	= Total Cover	

Herb Stratum (Plot size: 6 ft)			
1. Schedonorus arundinaceus	10	✓	FAC
2. Alopecurus pratensis	30	✓	FAC
3. Daucus carota	20	✓	FACU
4. Hypochaeris radicata	5		FACU
5. Taraxacum officinale	5		FACU
6.			
7.			
8.			
9.			
10.			
11.			
	70	= Total Cover	

Woody Vine Stratum (Plot size: 12 ft)			
1. NONE			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	40	x 3 =	120
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	100 (A)		300 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☐ 2 - Dominance Test is >50%
☑ 3 - Prevalence Index is ≤3.0[1]
☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ 5 - Wetland Non-Vascular Plants[1]
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** x **No** ____

Remarks:
Fraxinus in plot established before channel modification

SOIL

Sampling Point: SP8U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	10YR3/2	98	10YR5/6	2	C	M	SiCL	--
12-15	10YR3/2	95	10YR4/4	5	C	M	SiC	see remarks below
15-18	10YR4/2	100	--	--	--	--	SiC	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** X **No**

Remarks:

SICL becomes SiC at approximately 14" bg and soil peds become small and rounded, but dry to 18".

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐ No	☑ Depth (inches):	none	
Water Table Present?	Yes	☐ No	☑ Depth (inches):	none	
Saturation Present? (includes capillary fringe)	Yes	☐ No	☑ Depth (inches):	none	

Wetland Hydrology Present? **Yes** **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

It is assumed that this plot has relict hydric soils and no longer maintains hydrology under normal circumstances due to the altered site hydrology. Hydrology is assumed to occur here during significant flood events, although an early May visit indicated that normal 2-yr flood events wouldn't support hydrology at this location. Please note that a preliminary March 19, 2019 site visit documented saturation to 16"bg and didn't observe a water table along this topographic position to 18"bg.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Ferguson lot 2301 City/County: Lowell, OR Sampling Date: May 1, 2019
Applicant/Owner: Tristan Ferguson State: OR Sampling Point: SP9U
Investigator(s): Meiering Section, Township, Range: 14,19S,01W
Landform (hillslope, terrace, etc.): Flats terrace Local relief (concave, convex, none): CONVEX/FLATS Slope (%): 0-6%
Subregion (LRR): A Lat: 43.922817 Long: -122.784789 Datum: NAD83 2011 (Lat/Lon Decimal Degrees)
Soil Map Unit Name: 102C, PANTHER SILTY CLAY LOAM, 2 TO 12 PERCENT SLOPES NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes x No ☐
Are Vegetation x, Soil ☑, or Hydrology ☑ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No ☐	**Is the Sampled Area within a Wetland?**	**Yes ☐ No x**
Hydric Soil Present?	Yes x	No ☐		
Wetland Hydrology Present?	Yes ☐	No x		

Remarks:
Plot transect paired with SP8 and Sp9 to establish eastern boundary of W1. Plot established in area mapped as wetland in 2008 (see cover page of report) Please note that a preliminary March 19, 2019 site visit didn't observe a water table along this topographic position at a8"bg. All three wetland criteria are noted as naturally problematic due to the alteration of hydrology circa 2005 and the above average precipitation in April 2019.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. NONE		☐	
2.	0	☐	
3.	0	☐	
4.	0	☐	
	0 = Total Cover		

Sapling/Shrub Stratum (Plot size: 30 ft)			
1. NONE	0	☐	
2.	0	☐	
3.	0	☐	
4.	0	☐	
5.	0	☐	
	0 = Total Cover		

Herb Stratum (Plot size: 6 ft)			
1. Schedonorus arundinaceus	75	✓	FAC
2. Alopecurus pratensis	30	✓	FAC
3. Daucus carota	20	✓	FACU
4. Hypochaeris radicata	5	☐	FACU
5.		☐	
6.		☐	
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
	130 = Total Cover		

Woody Vine Stratum (Plot size: 12 ft)		
1. NONE		☐
2.		☐
	0 = Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66666666666 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species		x 2 =	0
FAC species	105	x 3 =	315
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	130 (A)		415 (B)

Prevalence Index = B/A = 3.1923076923076925

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☐ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0[1]
☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ 5 - Wetland Non-Vascular Plants[1]
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No ☐

Remarks:

SOIL

Sampling Point: SP9U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-16	10YR3/2	98	10YR5/6	2	C	M	SiCL	--
16-20	10YR3/2	100	----	----	----	--	SiC	--
--	--	--	--	----	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** X **No**

Remarks:

SICL becomes SiC at approximately 16" bg and soil peds become small and rounded, but dry to 20".

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): none

Water Table Present? Yes ☐ No ☑ Depth (inches): none

Saturation Present? (includes capillary fringe) Yes ☐ No ☑ Depth (inches): none

Wetland Hydrology Present? **Yes** **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

It is assumed that this plot has relict hydric soils and no longer maintains hydrology under normal circumstances due to the altered site hydrology. Hydrology is assumed to occur here during significant flood events, although an early May visit indicated that normal 2-yr flood events wouldn't support hydrology at this location. Please note that a preliminary March 19, 2019 site visit documented saturation at 18"bg and didn't observe a water table along this topographic position.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Ferguson lot 2301 City/County: Lowell, OR Sampling Date: May 1, 2019
Applicant/Owner: Tristan Ferguson State: OR Sampling Point: SP10W
Investigator(s): Meiering Section, Township, Range: 14,19S,01W
Landform (hillslope, terrace, etc.): Historic Channel bottom Local relief (concave, convex, none): CONCAVE/flat Slope (%): <1%
Subregion (LRR): A Lat: 43.922817 Long: -122.784789 Datum: NAD83 2011 (Lat/Lon Decimal Degrees)
Soil Map Unit Name: 102C, PANTHER SILTY CLAY LOAM, 2 TO 12 PERCENT SLOPES NWI classification: PSSC
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)
Are Vegetation ____ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation x , Soil ☑ , or Hydrology ☑ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	x	No	
Hydric Soil Present?	Yes	x	No	
Wetland Hydrology Present?	Yes	x	No	

Is the Sampled Area within a Wetland? Yes x No ____

Remarks:
Plot paired with SP6 to establish eastern boundary of W1. Plot established in area mapped as wetland in 2008 (see cover page of report) Please note that a preliminary March 19, 2019 site visit didn't observe a water table along this topographic position. All three wetland criteria are noted as naturally problematic due to the alteration of hydrology circa 2005 and the above average precipitation in April 2019.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia	40	✓	FACW
2.	0		
3.	0		
4.	0		
	40	= Total Cover	

Sapling/Shrub Stratum (Plot size: 30 ft)			
1. NONE	0		
2.	0		
3.	0		
4.	0		
5.	0		
	0	= Total Cover	

Herb Stratum (Plot size: 6 ft)			
1. Mentha pulegium	30	✓	OBL
2. Nasturtium officinale	10	✓	OBL
3. Rumex crispus	5	✓	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	45	= Total Cover	

Woody Vine Stratum (Plot size: 12 ft)			
1. NONE			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 50

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A = NaN

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☑ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0[1]
☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ 5 - Wetland Non-Vascular Plants[1]
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No ____

Remarks:

SOIL

Sampling Point: SP10W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-4	10YR3/2	90	10YR4/4	100	C	M	SiC	--
4-12	10YR4/2	95	10YR4/4	5	C	M	SiC	see remarks below
12-18	10YR4/2	100	--	--	--	--	C	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--
			--	--	--	--	--	--

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type: Clay

Depth (inches): Begins 12"bg

Hydric Soil Present? **Yes** X **No**

Remarks:

SiC becomes Clay at approximately 12"bg

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☑ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☑ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☑	Depth (inches):	none
Water Table Present?	Yes	☑	No	☐	Depth (inches):	10"bg
Saturation Present? (includes capillary fringe)	Yes	☑	No	☐	Depth (inches):	5"bg

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Please note that a preliminary March 19, 2019 site visit documented 1-2" of surface water within the lower reach of this swale.

APPENDIX C:
GROUND LEVEL PHOTOS

pp1 looking n.pdf

pp1 looking ne.pdf

pp1 looking s.pdf

pp1 looking s-sw .pdf

pp1 looking w-sw.pdf

pp1b looking n.pdf

pp1b looking ne.pdf

pp1b looking n-ne.pdf

pp1b looking north with fenceline in center frame .pdf

pp1c looking n-ne along d1 .pdf

pp1c looking n-ne.pdf

pp1d looking e-se across ne corner of sa.pdf

pp2 looking ne.pdf

pp2 looking n-nw.pdf

pp2 looking se.pdf

pp2 looking s-se.pdf

pp2 looking s-sw.pdf

pp2b facing ne up historic channel.pdf

pp3 looking e-ne.pdf

pp3 looking n-nw.pdf

pp3 looking w-nw.pdf

pp4 looking e.pdf

pp4 looking east.pdf

pp4 looking n.pdf

pp4 looking ne.pdf

pp4 looking n-nw.pdf

pp4 looking w-nw.pdf

pp5 looking east.pdf

pp5 looking n.pdf

pp5 looking n-nw.pdf

pp5 looking s.pdf

pp5 looking sw.pdf

pp5 looking w.pdf

pp5b looking nw.pdf

pp7 looking n.pdf

pp7 looking s-sw.pdf

pp7b looking sw.pdf

pp8 looking n-ne.pdf

pp8 looking s.pdf

pp8 looking sw.pdf

pp8 looking w-sw.pdf

pp8b looking s.pdf

pp8b looking sw.pdf

pp9 looking n-ne.pdf

pp9 looking n-nw.pdf

pp9 looking w.pdf

pp9 looking w-sw.pdf

looking east across sp4u (at gps) from sp3w. foot bridge over d1 is visible right of center frame.pdf

APPENDIX D

ADDITIONAL INFORMATION

Monthly Total Precipitation for LOOKOUT POINT DAM, OR

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2019	M	M	2.44	9.78	2.00	0.79	0.22	0.92	M	M	M	M	M
Mean	M	M	2.44	9.78	2.00	0.79	0.22	0.92	M	M	M	M	M

WETS Table

WETS Station: LOOKOUT POINT DAM, OR								
Requested years: 1997 - 2017								
Month	Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0.10 or more	Avg Snowfall
Jan	47.8	36.4	42.1	6.22	4.23	7.43	13	-
Feb	51.3	37.4	44.4	4.75	3.32	5.65	11	-
Mar	55.0	39.3	47.1	5.47	4.26	6.33	14	-
Apr	59.3	41.5	50.4	4.36	3.65	4.91	12	-
May	65.6	45.9	55.7	3.30	2.23	3.94	9	-
Jun	71.8	50.3	61.1	1.77	0.99	2.16	5	-
Jul	81.0	54.1	67.6	0.42	0.11	0.46	1	-
Aug	81.0	54.1	67.6	0.54	0.14	0.50	1	-
Sep	75.1	51.5	63.3	1.58	0.60	1.92	4	-
Oct	63.4	46.7	55.0	3.62	2.33	4.36	8	-
Nov	53.1	41.3	47.2	6.14	4.43	7.25	12	-
Dec	46.5	36.0	41.3	6.89	5.10	8.08	13	-
Annual:					40.07	49.24		
Average	62.6	44.5	53.6	-	-	-	-	-
Total	-	-	-	45.07			104	-

GROWING SEASON DATES			
Years with missing data:	24 deg = 2	28 deg = 1	32 deg = 1
Years with no occurrence:	24 deg = 13	28 deg = 4	32 deg = 0
Data years used:	24 deg = 19	28 deg = 20	32 deg = 20
Probability	24 F or higher	28 F or higher	32 F or higher
50 percent *	Insufficient data	1/30 to 12/13: 317 days	3/21 to 11/21: 245 days
70 percent *	Insufficient data	1/15 to 12/29: 348 days	3/12 to 12/1: 264 days
* Percent chance of the growing season occurring between the Beginning and Ending dates.			

STATS TABLE - total precipitation (inches)													
Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annl
1955									M1.55	5.26	6.91	M13.16	26.88
1956	9.25	5.92	3.96	1.79	4.71	3.00	0.08	0.69	0.39	8.71	1.63	4.70	44.83
1957	2.46	6.73	8.79	2.33	3.40	2.18	0.47	0.30	1.42	3.52	2.37	9.32	43.29
1958	7.29	7.61	2.51	2.98	2.00	3.83	0.30	0.44	1.05	1.77	8.63	3.56	41.97
1959	8.15	5.49	4.65	1.16	4.95	1.56	0.39	0.00	2.48	3.30	1.57	3.56	37.26
1960	4.39	5.61	8.78	4.36	6.05	0.90	0.00	0.80	0.55	3.08	10.69	2.74	47.95
1961	2.12	12.51	6.72	2.30	3.88	1.02	0.37	0.12	1.83	4.18	10.02	6.03	51.10
1962	2.46	3.10	6.65	3.42	3.97	0.89	0.08	1.07	1.01	5.24	5.65	3.93	37.47

1963	1.33	5.74	5.49	6.42	4.47	3.08	0.88	0.03	2.39	2.92	7.01		39.76
1964	11.58	1.48	4.67	3.11	1.49	3.20	0.78	0.90	1.00	1.35	7.90	15.79	53.25
1965	7.47	1.59	0.76	4.27	1.84	1.16	0.15	2.22	0.14	2.32	5.48	5.21	32.61
1966	11.77	2.50	5.84	1.12	0.83	0.88	1.79	0.08	1.70	2.02	9.45	5.91	43.89
1967	7.28	2.59	4.60	3.91	2.67	0.83	0.00	0.00	2.72	4.66	2.88	4.86	37.00
1968	5.66	4.98	2.81	2.13	4.26	1.65	0.39	5.13	2.80	4.82	7.67	7.24	49.54
1969	9.20	3.20	2.17	2.63	3.04	6.14	0.16	0.00	1.77	3.78	2.57	10.11	44.77
1970	10.66	1.79	3.04	4.44	1.89	0.78	0.02	0.11	2.27	4.47	6.85	8.19	44.51
1971	9.66	4.50	6.08	3.75	2.80	2.63	0.09	0.83	3.86	2.96	7.46	6.71	51.33
1972	9.63	5.46	6.45	5.55	3.34	1.17	0.01	0.56	2.23	2.34	3.03	5.60	45.37
1973	4.81	2.01	5.37	1.72	1.34	1.86	0.02	0.63	3.18	2.34	16.92	8.28	48.48
1974	8.09	7.08	8.32	4.43	1.61	1.28	0.39	0.39	0.10	2.17	5.01	7.41	46.28
1975	6.64	5.52	6.41	4.00	2.84	1.28	1.18	1.86	0.11	5.87	5.06	8.28	49.05
1976	6.62	4.79	5.46	3.58	2.02	0.95	1.05	3.33	1.97	1.32	2.39	1.23	34.71
1977	1.26	2.53	4.87	1.82	6.36	0.58	0.06	2.05	2.87	3.16	7.94	9.75	43.25
1978	5.13	3.88	2.09	4.06	3.12	1.24	1.18	3.74	3.71	0.44	5.43	4.50	38.52
1979	3.58	8.46	3.82	7.00	2.59	1.52	0.16	2.17	1.43	5.67	5.02	5.11	46.53
1980	7.41	3.46	4.40	3.48	2.09	2.29	0.32	0.07	1.31	2.14	6.46	11.15	44.58
1981	2.06	4.28	4.44	3.51	4.60	3.34	0.21	0.00	3.06	3.98	6.94	15.43	51.85
1982	7.37	5.74	4.38	4.59	0.67	2.88	M0.98	1.06	3.25	5.17	5.63	9.28	51.00
1983	4.29	9.33	7.97	4.37	2.66	3.02	2.40	1.34	0.67	2.21	9.11	7.89	55.26
1984	1.78	8.19	6.00	5.51	3.67	4.69	0.57	0.16	1.28	5.83	13.11	3.80	54.59
1985	0.74	4.96	4.83	2.09	1.90	2.50	0.57	0.37	2.66	4.80	4.93	2.95	33.30
1986	6.93	9.96	3.85	2.59	3.60	1.30	0.78	0.11	4.54	2.14	8.12	2.22	46.14
1987	5.75	4.62	3.46	1.66	2.67	0.72	3.52	0.07	0.27	0.12	4.50	10.15	37.51
1988	M7.39	1.52	4.74	6.14	5.01	3.30	0.40	0.00	2.34	0.43	11.26	3.98	46.51
1989	5.92	2.56	10.25	2.50	4.37	1.46	0.74	4.07	0.68	2.85	3.77	1.54	40.71
1990	7.58	4.51	2.88	3.38	3.27	2.13	1.36	2.02	0.43	6.39	7.23	3.82	45.00
1991	2.29	4.83	6.29	4.40	6.23	1.30	0.36	0.92	0.09	3.78	10.58	3.74	44.81
1992	2.70	3.96	1.59	6.94	0.73	1.67	1.39	0.18	1.46	3.38	5.73	9.56	39.29
1993	5.17	2.98	6.34	7.82	7.28	4.94	3.08	1.57	0.13	1.13	2.09	4.34	46.87
1994	2.43	3.35	4.07	2.49	2.10	2.81	0.23	0.00	1.94	2.89	9.58	4.08	35.97
1995	9.69	3.19	3.75	6.39	3.21	4.14	0.93	1.18	2.41	2.98	7.96	9.13	54.96
1996	11.13	8.32	2.46	6.44	7.00	1.63	0.28	0.23	1.77	7.11	14.30	15.36	76.03

1997	8.14	3.73	6.42	4.43	2.63	2.05	0.88	1.89	3.06	5.69	2.76	3.42	45.10
1998	8.75	6.63	5.44	4.10	7.32	1.62	0.13	0.00	0.56	3.09	12.05	9.40	59.09
1999	7.92	9.29	5.59	3.53	3.70	1.91	0.28	2.28	0.12	2.55	5.58	4.54	47.29
2000	11.23	6.66	3.71	4.57	3.50	1.50	0.21	0.00	1.18	3.33	3.22	4.56	43.67
2001	2.74	2.78	4.26	3.81	1.91	2.24	0.75	0.55	0.75	4.43	8.04	8.05	40.31
2002	5.78	3.68	4.34	3.91	1.49	0.71	0.03	0.20	1.82	0.90	4.36	8.75	35.97
2003	6.67	4.64	5.96	6.53	2.01	0.09	0.06	0.58	2.26	2.43	6.63	12.12	49.98
2004	7.82	4.67	3.11	2.60	5.59	1.53	0.05	2.11	2.09	5.07	2.69	5.91	43.24
2005	1.36	2.14	5.10	4.77	7.66	2.92	0.54	0.08	0.78	4.00	7.25	9.40	46.00
2006	13.19	3.58	4.75	4.49	4.53	3.02	0.27	0.01	1.84	1.11	10.29	7.96	55.04
2007	4.11	4.69	3.44	3.12	M0.76	M1.10	0.56	0.79	1.00	M2.97	5.78	7.78	36.10
2008	10.03	2.06	6.31	3.42	1.53	1.13	0.27	0.73	M0.33	2.06	4.07	6.28	38.22
2009	3.17	3.17	5.06	3.31	M2.96	M0.47	0.25	0.28	1.40	4.01	M6.42	4.51	35.01
2010	6.38	3.43	M4.80	M4.66	3.50	M5.38	0.08	M0.79	2.61	4.45	M6.79	M5.31	48.18
2011	3.59	2.38	9.18	6.74	M3.02	1.17	2.80	0.00	0.26	2.63	M3.54	M4.31	39.62
2012	M8.00	5.33	M10.70	6.38	4.53	M3.99	0.49	0.01	0.05	M3.03	13.65	11.64	67.80
2013	5.46	2.30	2.94	3.33	2.64	2.05	0.00	0.55	8.18	1.38	2.81	2.57	34.21
2014	3.42	12.51	9.76	3.97	3.57	1.20	0.10	0.29	2.17	6.46	6.52	9.96	59.93
2015	2.16	4.15	2.60	3.52	2.49	0.96	0.02	0.30	0.55	1.27	5.35	8.78	32.15
2016	6.30	3.48	4.49	3.05	1.59	0.92	0.95	0.00	0.37	10.81	3.74	7.06	42.76
2017	4.37	8.54	6.95	7.28	2.27	1.25	0.01	0.00	1.88	4.40	7.40	2.40	46.75
2018	5.25	2.56	4.85	5.12									17.78

Notes: Data missing in any month have an "M" flag. A "T" indicates a trace of precipitation.

Data missing for all days in a month or year is blank.

Creation date: 2016-07-22

Climatological Data for LOOKOUT POINT DAM, OR - April 2019

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2019-04-01	67	42	54.5	15	5	0.11	0.0	0
2019-04-02	56	48	52.0	12	2	0.72	0.0	0
2019-04-03	59	51	55.0	15	5	0.28	0.0	0
2019-04-04	56	49	52.5	13	3	0.19	0.0	0
2019-04-05	59	49	54.0	14	4	0.39	0.0	0
2019-04-06	57	45	51.0	11	1	0.29	0.0	0
2019-04-07	56	45	50.5	11	1	1.45	0.0	0
2019-04-08	55	50	52.5	13	3	2.42	0.0	0
2019-04-09	53	44	48.5	9	0	0.98	0.0	0
2019-04-10	55	43	49.0	9	0	0.17	0.0	0
2019-04-11	52	44	48.0	8	0	0.55	0.0	0
2019-04-12	48	45	46.5	7	0	0.70	0.0	0
2019-04-13	58	45	51.5	12	2	0.00	0.0	0
2019-04-14	52	41	46.5	7	0	0.37	0.0	0
2019-04-15	52	41	46.5	7	0	0.08	0.0	0
2019-04-16	49	41	45.0	5	0	0.36	0.0	0
2019-04-17	62	45	53.5	14	4	0.00	0.0	0
2019-04-18	67	49	58.0	18	8	0.00	0.0	0
2019-04-19	79	51	65.0	25	15	0.00	0.0	0
2019-04-20	70	48	59.0	19	9	0.68	0.0	0
2019-04-21	55	46	50.5	11	1	0.04	0.0	0
2019-04-22	59	46	52.5	13	3	0.00	0.0	0
2019-04-23	69	46	57.5	18	8	0.00	0.0	0
2019-04-24	67	48	57.5	18	8	0.00	0.0	0
2019-04-25	64	40	52.0	12	2	0.00	0.0	0
2019-04-26	69	40	54.5	15	5	0.00	0.0	0
2019-04-27	66	38	52.0	12	2	0.00	0.0	0
2019-04-28	60	33	46.5	7	0	0.00	0.0	0
2019-04-29	66	35	50.5	11	1	0.00	0.0	0
2019-04-30	67	37	52.0	12	2	0.00	0.0	0
Average|Sum	60.1	44.2	52.2	373	94	9.78	0.0	0.0

Climatological Data for LOOKOUT POINT DAM, OR - May 2019

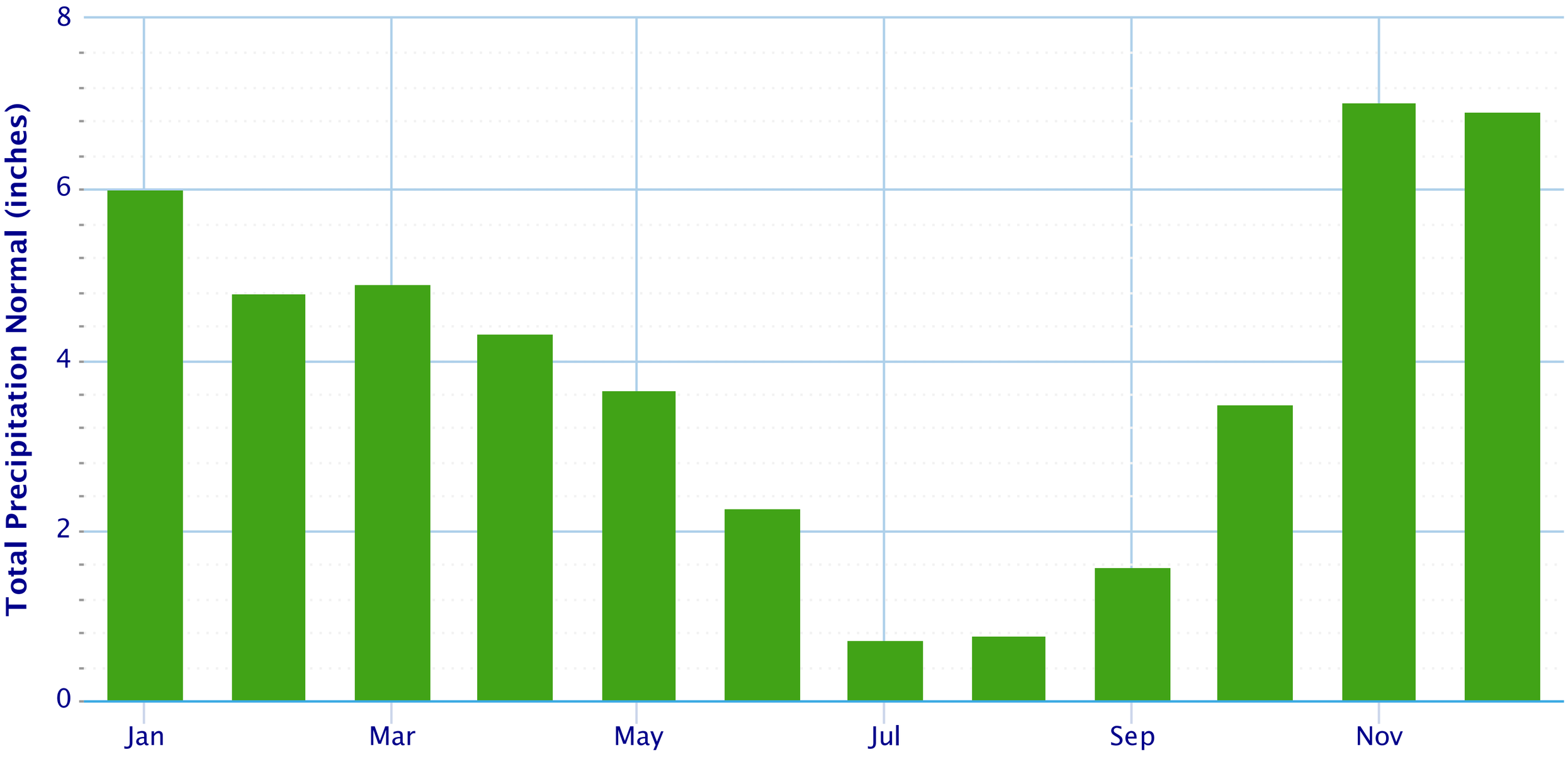
Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2019-05-01	66	40	53.0	13	3	0.00	0.0	0
2019-05-02	68	34	51.0	11	1	0.00	0.0	0
2019-05-03	63	37	50.0	10	0	0.00	0.0	0
2019-05-04	69	42	55.5	16	6	0.00	0.0	0
2019-05-05	71	50	60.5	21	11	0.00	0.0	0
2019-05-06	73	50	61.5	22	12	0.00	0.0	0
2019-05-07	77	50	63.5	24	14	0.00	0.0	0
2019-05-08	74	44	59.0	19	9	0.00	0.0	0
2019-05-09	72	47	59.5	20	10	0.00	0.0	0
2019-05-10	84	53	68.5	29	19	0.00	0.0	0
2019-05-11	81	57	69.0	29	19	0.00	0.0	0
2019-05-12	80	45	62.5	23	13	0.00	0.0	0
2019-05-13	71	45	58.0	18	8	0.00	0.0	0
2019-05-14	68	49	58.5	19	9	0.00	0.0	0
2019-05-15	61	51	56.0	16	6	0.06	0.0	0
2019-05-16	56	51	53.5	14	4	0.34	0.0	0
2019-05-17	57	50	53.5	14	4	0.15	0.0	0
2019-05-18	60	51	55.5	16	6	0.06	0.0	0
2019-05-19	69	50	59.5	20	10	0.28	0.0	0
2019-05-20	61	50	55.5	16	6	0.01	0.0	0
2019-05-21	67	48	57.5	18	8	0.12	0.0	0
2019-05-22	59	49	54.0	14	4	0.25	0.0	0
2019-05-23	66	50	58.0	18	8	0.01	0.0	0
2019-05-24	71	51	61.0	21	11	0.00	0.0	0
2019-05-25	64	49	56.5	17	7	0.00	0.0	0
2019-05-26	56	46	51.0	11	1	0.38	0.0	0
2019-05-27	59	46	52.5	13	3	0.29	0.0	0
2019-05-28	58	51	54.5	15	5	0.05	0.0	0
2019-05-29	62	51	56.5	17	7	0.00	0.0	0
2019-05-30	71	51	61.0	21	11	0.00	0.0	0
2019-05-31	72	53	62.5	23	13	0.00	0.0	0
Average|Sum	67.3	48.1	57.7	558	248	2.00	0.0	0.0

Climatological Data for LOOKOUT POINT DAM, OR - July 2019

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2019-07-01	78	50	64.0	24	14	0.00	0.0	0
2019-07-02	61	55	58.0	18	8	0.02	0.0	0
2019-07-03	68	50	59.0	19	9	0.01	0.0	0
2019-07-04	74	52	63.0	23	13	0.00	0.0	0
2019-07-05	80	54	67.0	27	17	0.00	0.0	0
2019-07-06	75	54	64.5	25	15	0.00	0.0	0
2019-07-07	71	54	62.5	23	13	0.01	0.0	0
2019-07-08	78	52	65.0	25	15	0.00	0.0	0
2019-07-09	80	52	66.0	26	16	0.00	0.0	0
2019-07-10	69	57	63.0	23	13	0.00	0.0	0
2019-07-11	78	62	70.0	30	20	0.00	0.0	0
2019-07-12	80	57	68.5	29	19	0.00	0.0	0
2019-07-13	80	59	69.5	30	20	0.00	0.0	0
2019-07-14	80	56	68.0	28	18	0.00	0.0	0
2019-07-15	84	59	71.5	32	22	0.00	0.0	0
2019-07-16	77	60	68.5	29	19	0.00	0.0	0
2019-07-17	78	60	69.0	29	19	0.00	0.0	0
2019-07-18	80	60	70.0	30	20	0.17	0.0	0
2019-07-19	73	49	61.0	21	11	0.01	0.0	0
2019-07-20	77	50	63.5	24	14	0.00	0.0	0
2019-07-21	81	52	66.5	27	17	0.00	0.0	0
2019-07-22	83	56	69.5	30	20	0.00	0.0	0
2019-07-23	81	56	68.5	29	19	0.00	0.0	0
2019-07-24	76	50	63.0	23	13	0.00	0.0	0
2019-07-25	83	52	67.5	28	18	0.00	0.0	0
2019-07-26	86	53	69.5	30	20	0.00	0.0	0
2019-07-27	86	56	71.0	31	21	0.00	0.0	0
2019-07-28	82	55	68.5	29	19	0.00	0.0	0
2019-07-29	82	55	68.5	29	19	0.00	0.0	0
2019-07-30	81	55	68.0	28	18	0.00	0.0	0
2019-07-31	74	52	63.0	23	13	0.00	0.0	0
Average|Sum	77.9	54.6	66.3	822	512	0.22	0.0	0.0

Monthly Climate Normals (1981–2010) – LOOKOUT POINT DAM, OR

Click and drag to zoom to a shorter time interval



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ATTACHMENT I

TRISTAN FERGUSON
N. DAMON ST. IMPROVEMENTS

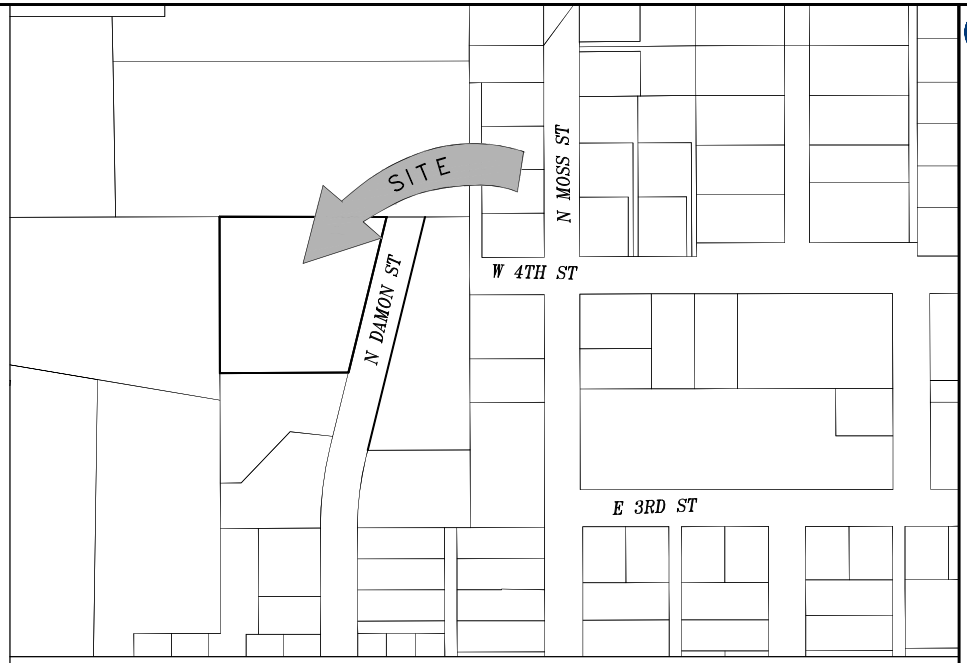
VERTICAL DATUM: NAVD88

ELEVATIONS ARE BASED ON RTK GPS OBSERVATIONS TAKEN SEPT. 26, 2019 USING THE OREGON REAL-TIME GEODETIC NETWORK AND GEOID 12A. (NAVD88)

UTILITY PROVIDERS

UTILITY	PROVIDER	PHONE NUMBER
WATER	CITY OF LOWELL	541-937-2157
SEWER	CITY OF LOWELL	541-937-2157
STORM	CITY OF LOWELL	541-937-2157
ELECTRIC	LANE ELECTRIC	541-484-1151
GAS	NW NATURAL	503-220-2415
TELEPHONE/INTERNET	CENTURY LINK	800-283-4237
TELEVISION	SPECTRUM	888-485-8165

LOCATION OF UTILITIES SHOWN ON THE PLANS IS APPROXIMATE. THE CONTRACTOR SHALL CALL THE "ONE-CALL" UTILITY LOCATION NUMBER, 1-800-332-2344, FOR FIELD LOCATION AND DEPTH BEFORE EXCAVATING.



VICINITY MAP - SCALE: 1"=100'

LEGEND

- EXISTING CONTOUR LINE (730)
- PROPOSED CONTOUR LINE (729)
- PROPERTY LINE
- EXISTING ASPHALT
- EXISTING FENCE
- EXISTING SANITARY SEWER (E)SS
- EXISTING TOP OF BANK
- EXISTING TOE OF BANK
- PROPOSED TOP OF BANK
- PROPOSED TOE OF BANK
- HDPE CULVERT
- DRAINAGE DIRECTION
- RIP RAP
- BUILDING
- DECIDUOUS TREE
- GRAVEL STREET/DRIVEWAY
- MAPPED WETLAND
- POTENTIAL FUTURE SHALLOW DETENTION
- STORMWATER FILTER STRIP
- CONCRETE
- DETENTION TANK
- INLET CATCH BASIN
- ELECTRICAL TRANSFORMER
- PROPOSED EASEMENT
- WATER METER WM
- PROPOSED NEW WATER MAIN W

PROJECT TEAM

OWNER
TRISTAN FERGUSON
P.O. BOX 244
DEXTER, OR 97431
CONTACT: TRISTAN FERGUSON
TEL: 541-556-0882

ARCHITECT
STRUX ENGINEERING
P.O. BOX 324
209 N MCKALEY
PRAIRIE CITY, OR 97869

CIVIL ENGINEER
BRANCH ENGINEERING, INC.
310 5TH STREET
SPRINGFIELD, OR 97477
CONTACT: CHRIS MORRIS, E.I.T.
DAMIEN GILBERT, PE.
541-746-0637

SURVEYOR
BRANCH ENGINEERING, INC.
310 5TH STREET
SPRINGFIELD, OR 97477
CONTACT: DANIEL A. NELSON, PLS
PHONE: 541-746-0637

WETLAND CONSULTANT
WETLANDS AND WILDLIFE, LLC
375 W 4TH AVE SUITE 203
EUGENE, OR 97401
CONTACT: BRIAN MEIERING
PHONE: 541-214-6051

INDEX

C0.0 COVER
C1.0 EXISTING CONDITIONS
C2.0 SITE PLAN
C3.0 UTILITY PLAN
C4.0 GRADING PLAN
C5.0 N. DAMON ST. PLAN
C6.0 CROSS-SECTIONS
C7.0 DETAILS
L1.0 LANDSCAPE PLAN
A1.0 FLOOR PLAN
A1.1 CROSS-SECTIONS & WINDOW DETAILS
A3.0 ELEVATION VIEWS
A3.1 ELEVATIONS VIEWS

TABULATION OF COVERAGE

PROPERTY
TAX MAP 19-01-14-22, TAX LOT 2301
TOTAL PROPERTY AREA 1.37 AC
DEVELOPMENT AREA 0.30 AC

EXISTING CONDITIONS (DEVELOPMENT AREA)
IMPERVIOUS AREA
ROOF, PARKING AND SIDEWALKS 0 AC
PERVIOUS AREA 0.30 AC

PROPOSED CONDITIONS (DEVELOPMENT AREA)
IMPERVIOUS AREA
ROOF, PARKING AND SIDEWALKS 0.12 AC
PERVIOUS AREA 0.18 AC

PARKING REQUIREMENTS

VEHICULAR PARKING STANDARDS

LDC 9.513: SINGLE-FAMILY DWELLINGS: 1 BEDROOM - SINGLE SPACE PER DWELLING.

VEHICULAR PARKING TABULATION

SINGLE-FAMILY DWELLING: 1 DWELLING = 1 SPACE

EXISTING

STANDARD	0 SPACES
COMPACT	0 SPACES
ADA	0 SPACES
TOTAL	0 SPACES

PROPOSED

STANDARD	4 SPACES

OPEN SPACE

OPEN SPACE TOTALS

TOTAL OPEN SPACE	
GROSS SITE AREA	1.37 AC
TOTAL OPEN SPACE	1.25 AC

SITE DATA

FLOODPLAIN AND FLOODWAY
BASED ON FLOOD INSURANCE RATE MAP NO. 41039C1695F, EFFECTIVE DATE: JUNE 2, 1999, THIS PROPERTY IS OUTSIDE THE 500 YEAR FLOODPLAIN.

ELEVATION DATUM
ELEVATIONS SHOWN HEREON ARE IN NAVD'88 AS MEASURED BY GPS UNLESS OTHERWISE NOTED.

ZONING
R-1 RESIDENTIAL

SOIL TYPES
ACCORDING TO THE NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY, THE EXISTING SOILS ARE:
(113E) RITNER COBBLY SILTY CLAY LOAM, 12-30% SLOPES
(102C) PANTHER SILTY CLAY LOAM, 2-12% SLOPES

TAX MAP 19-01-14-22 TAX LOT 2301 & 77

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REGISTERED PROFESSIONAL ENGINEER
OREGON
DAMIEN GILBERT
Digitally signed by Damien Gilbert
Date: 2020.10.28 09:45:49 -07'00'
Expires: June 30, 2021

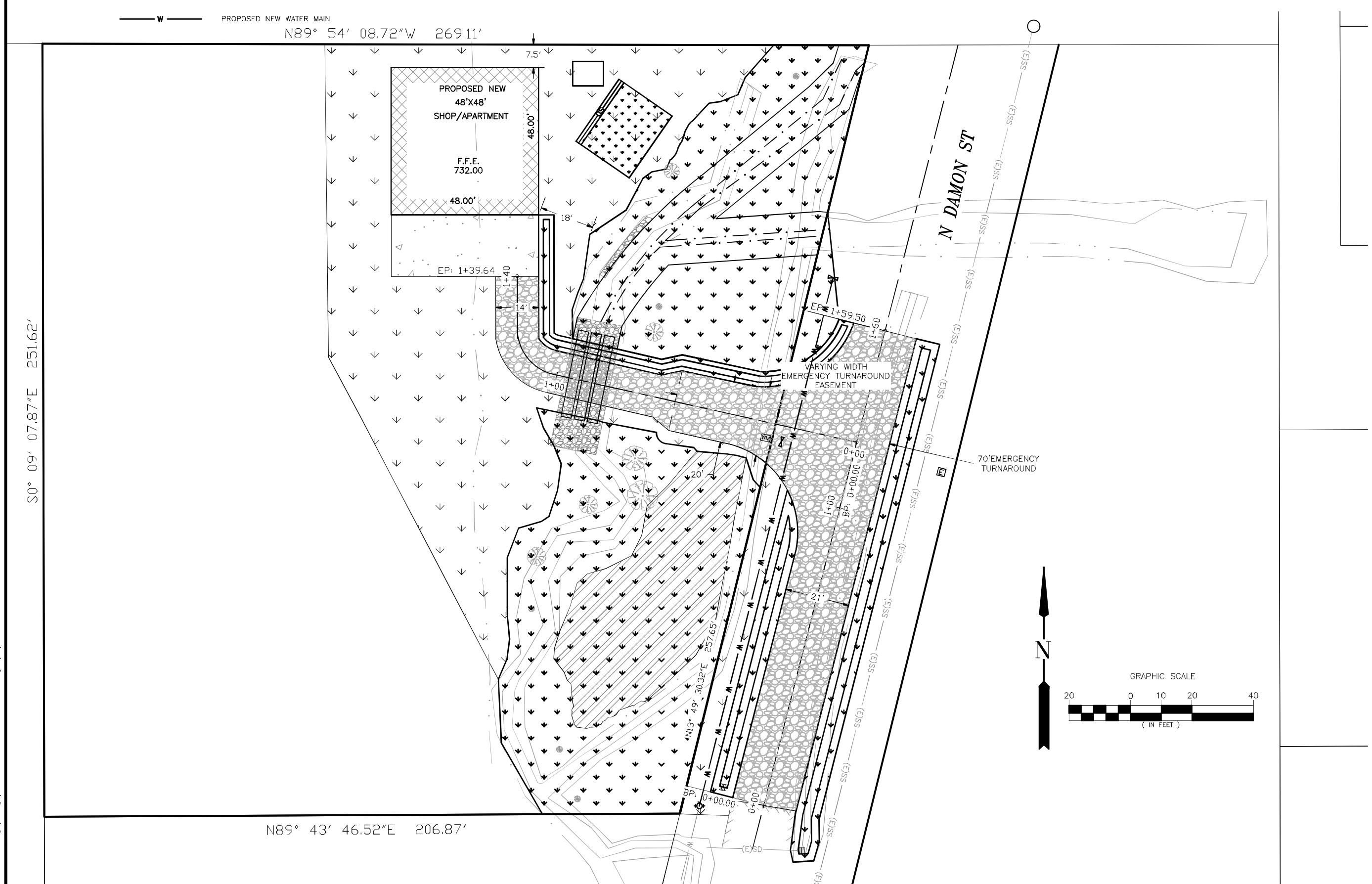
project title:
TRISTAN FERGUSON
N DAMON ST IMPROVEMENTS
N DAMON ST
LOWELL, OREGON
97452

revisions:

date: OCTOBER 27, 2020
drawn by: CM
designer: CM
project no: 19-264

COVER SHEET

sheet: C0.0



LEGEND

730 / 729	EXISTING CONTOUR LINE / PROPOSED CONTOUR LINE
	PROPERTY LINE
	EXISTING ASPHALT
	EXISTING FENCE
(E)SS	EXISTING SANITARY SEWER
	EXISTING TOP OF BANK
	EXISTING TOE OF BANK
	PROPOSED TOP OF BANK
	PROPOSED TOE OF BANK
	HDPE CULVERT
	DRAINAGE DIRECTION
	RIP RAP
	BUILDING
	DECIDUOUS TREE
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	STORMWATER FILTER STRIP
	CONCRETE
	DETENTION TANK
	INLET CATCH BASIN
E	ELECTRICAL TRANSFORMER
	PROPOSED EASEMENT
WM	WATER METER
W	PROPOSED NEW WATER MAIN
	UPLAND SEED MIX
	WETLAND SEED MIX

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TAX MAP 19-01-14-22 TAX LOT 2301

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DAMIEN GILBERT
EXPIRES: JUNE 30, 2021

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N DAMON ST
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project no: 19-264

SITE PLAN

sheet: C2.0

UTILITY NOTES

1. CONTRACTOR TO POTHOLE EXISTING UTILITIES TO VERIFY DEPTH AND SIZE. NOTIFY ENGINEER OF ANY DISCREPANCIES OR CONFLICTS AT LEAST 48 HOURS BEFORE EXCAVATION/CONSTRUCTION.
2. CONTRACTOR TO COORDINATE WITH LANE ELECTRIC FOR NEW ELECTRICAL MAIN AND ALL ELECTRIC UTILITY CONNECTIONS AND DEVICES.
3. ELECTRIC VAULT MUST BE 10 FEET FROM TREES AND BUILDING EAVES AND 0.5 FEET FROM ALL OTHER UNDERGROUND UTILITIES.
4. CONTRACTOR TO COORDINATE WITH LOWELL PUBLIC WORKS DEPARTMENT FOR NEW WATER MAIN AS WELL AS ALL WATER UTILITY CONNECTIONS AND DEVICES.
5. CONTRACTOR TO COORDINATE WITH LOWELL PUBLIC WORKS DEPARTMENT FOR PRIVATE SANITARY LATERAL CONNECTION.

UTILITY CONSTRUCTION NOTES

(200) NEW WATER MAIN CONNECTION TO EXISTING WATER MAIN. CONTRACTOR TO POTHOLE AND LOCATE STUB OFF OF EXISTING HYDRANT.

(201) CONNECTION TO NEW WATER MAIN.

(203) INSTALL NEW WATER METER.

(204) FURNISH AND INSTALL NEW 8" WATER MAIN.

(207) FURNISH AND INSTALL NEW DOMESTIC WATER LINE.

(208) WATER CONNECTION POINT TO BUILDING. SEE PLUMBING PLANS.

(209) FURNISH AND INSTALL NEW WEDGE GATE VALVE.

(300) FURNISH AND INSTALL 8" WASTEWATER TEE FITTING AND REDUCERS TO NEW 4" WASTEWATER SERVICE LINE. CONNECT TO EXISTING 8" WASTEWATER PIPE.

(301) WASTEWATER CONNECTION POINT TO BUILDING. SEE PLUMBING PLANS.

(303) FURNISH AND INSTALL 4" WASTEWATER PIPE @ 1% SLOPE MINIMUM. SEPERATE FROM WATER AND STORM PIPES PER OARs.

(401) FURNISH AND INSTALL INLET CATCH BASIN PER DETAIL, SHEET C7.0.

(404) FURNISH AND INSTALL STORMWATER CLEANOUT PER DETAIL, SHEET C7.0.

(421) FURNISH AND INSTALL 4" STORMWATER PIPE WITH TRACER WIRE AT 1% SLOPE UNLESS OTHERWISE NOTED IN PLANS.

(423) FURNISH AND INSTALL 6" PERFORATED STORMWATER PIPE.

(425) CONSTRUCT LEVEL SPREADER PER DETAIL, SHEET C7.0.

(427) CONSTRUCT STORMWATER CHANNEL PER SECTION, SHEET C6.0.

(428) FURNISH AND INSTALL BRENTWOOD STORMTANK DETENTION FACILITIES PER DETAIL, SHEET C7.0.

(429) FURNISH AND INSTALL 3-40" HDPE CULVERTS AT 2% SLOPE.

(430) CONSTRUCT CLASS 100 RIP RAP INLET/OUTLET PROTECTION AND CULVERT BEDDING PER CROSS-SECTION, SHEET C6.0.

(431) CONSTRUCT TREATMENT SWALE PER DETAIL, SHEET C7.0.

(432) FURNISH AND INSTALL CLASS 100 RIP RAP BANK REVETMENT PER SECTION, SHEET C6.0.

(504) APPROXIMATE LOCATION OF JOINT-UTILITY TRENCH. FURNISH AND INSTALL ELECTRICAL CONDUIT.

(505) APPROXIMATE LOCATION OF ELECTRICAL METER PANELS. COORDINATE WITH LANE ELECTRIC FOR INSTALLATION.

(506) APPROXIMATE LOCATION OF ELECTRICAL TRANSFORMER. FURNISH AND INSTALL 120/240V SINGLE PHASE PADMOUNT CONCRETE TRANSFORMER VAULT. COORDINATE WITH LANE ELECTRIC FOR INSTALLATION.

(514) CONNECT TO EXISTING TRANSFORMER. WORK DONE BY LANE ELECTRIC.

NOTES

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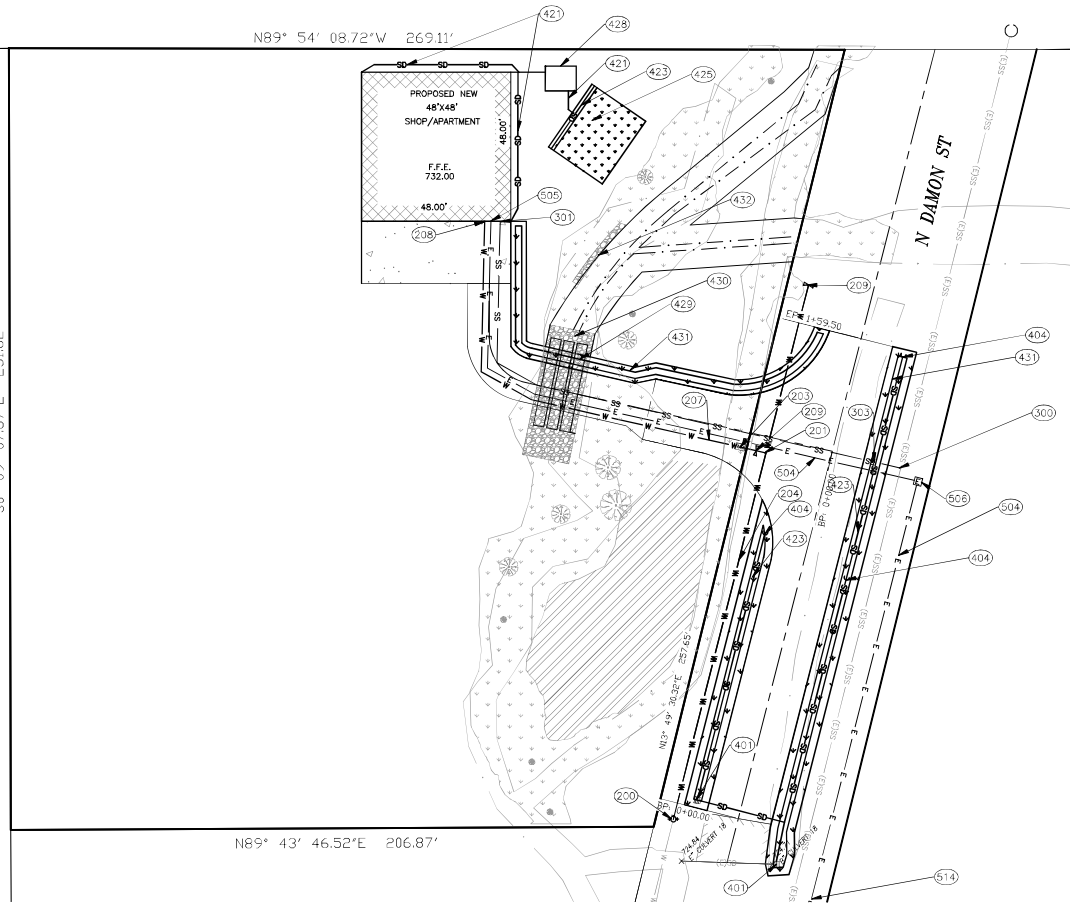

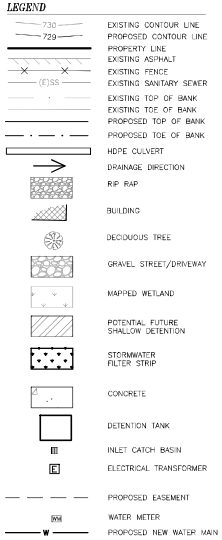

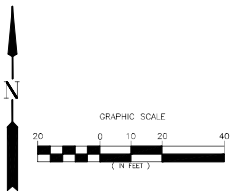

TAX MAP 19-01-14-22 TAX LOT 2301

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97452

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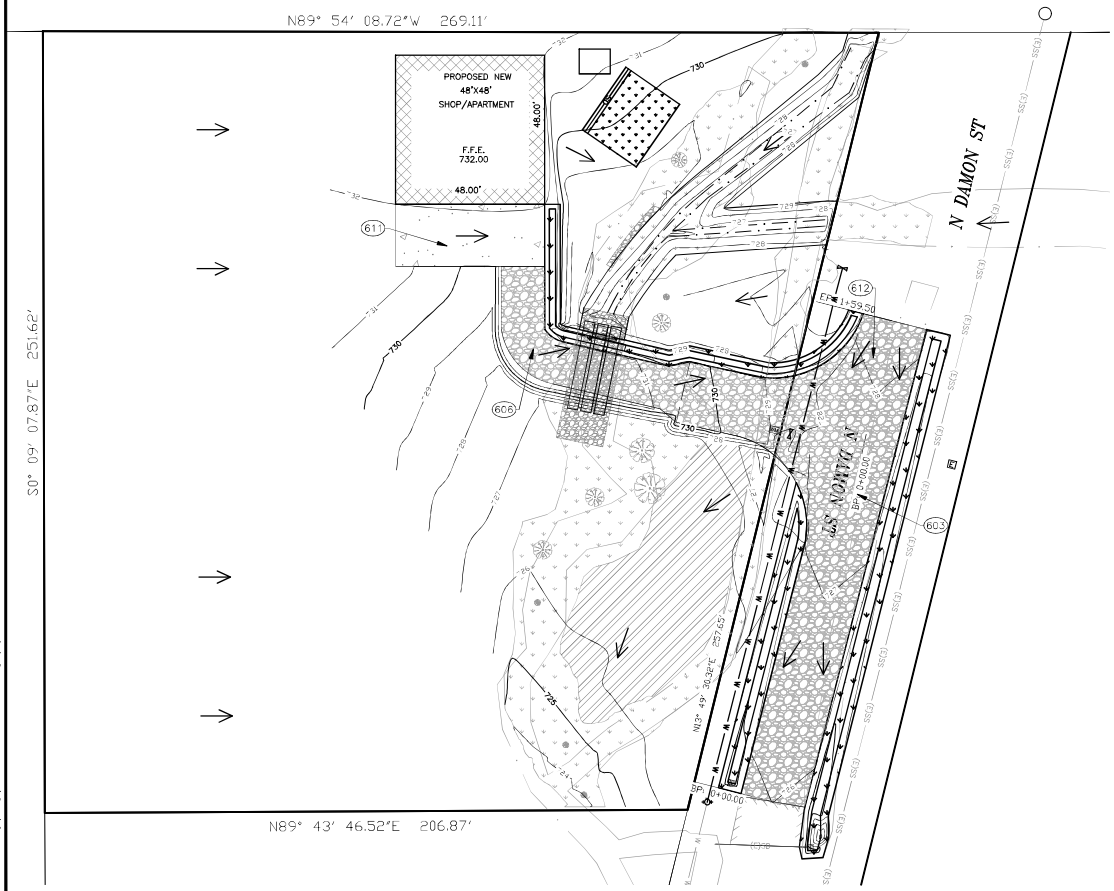
date: OCTOBER 27, 2020
drawn by: CM
designer: CM
project no: 19-264

UTILITY PLAN

sheet: C3.0

GRADING CONSTRUCTION NOTES

(603) CONSTRUCT GRAVEL PAVING SECTION
(606) CONSTRUCT PRIVATE DRIVEWAY
(611) CONSTRUCT CONCRETE PARKING PAD.
(612) CONSTRUCT GRAVEL FIRE TURNAROUND.



LEGEND

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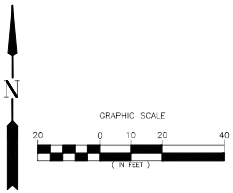
- WATER METER
- PROPOSED NEW WATER MAIN



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GRADING PLAN

sheet: C4.0

GENERAL NOTES

1. NORTH DAMON STREET RIGHT-OF-WAY STREET IMPROVEMENTS TO BE DEFERRED TO FUTURE TIME SHOULD THE ADJACENT LOTS BUILD-OUT. THE APPLICANT SHALL SIGN AN IRREVOCABLE WAIVER OF REMONSTRANCE TO PROVED FOR HALF-STREET IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO; SIDEWALK, CURB AND GUTTERS, STORM DRAINAGE, STREET LIGHTS AND SIGNAGE.

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

LEGEND

- EXISTING CONTOUR LINE
- PROPOSED CONTOUR LINE
- PROPERTY LINE
- EXISTING ASPHALT
- EXISTING FENCE
- EXISTING SANITARY SEWER
- EXISTING TOP OF BANK
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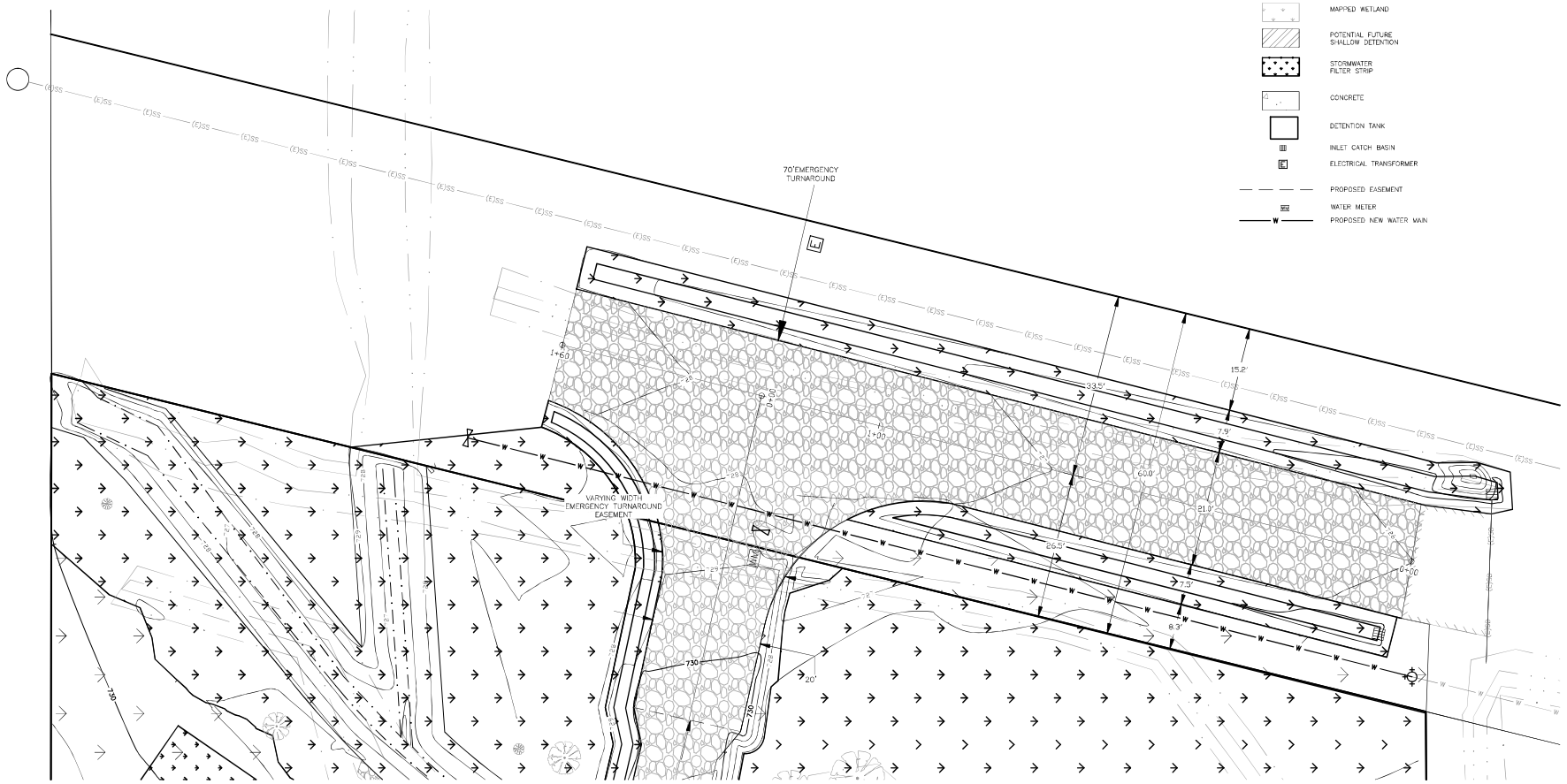
- PROPOSED NEW WATER MAIN



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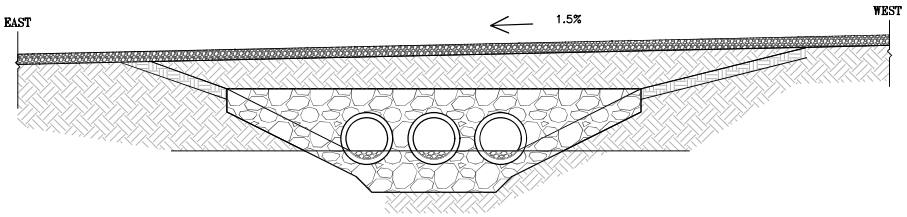
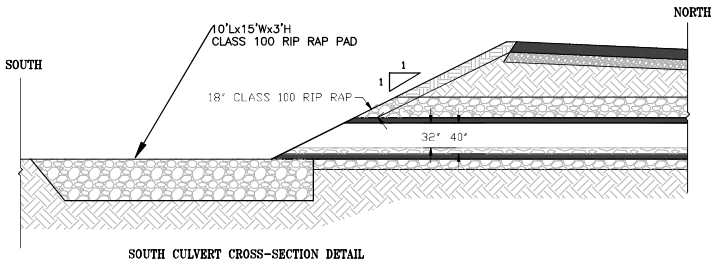
N. DAMON ST IMPROVEMENT PLAN

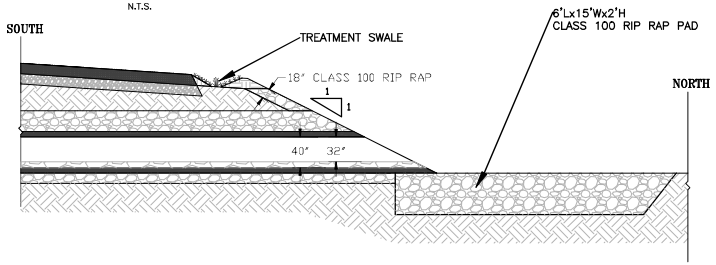
sheet: C5.0



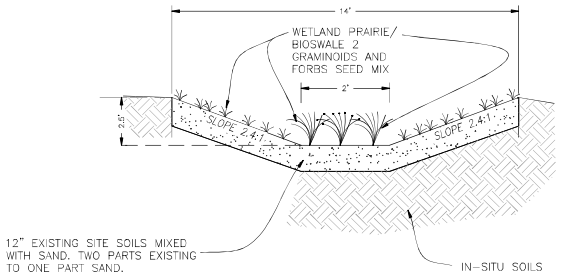
CULVERT CROSSING CROSS-SECTION DETAIL
N.T.S.



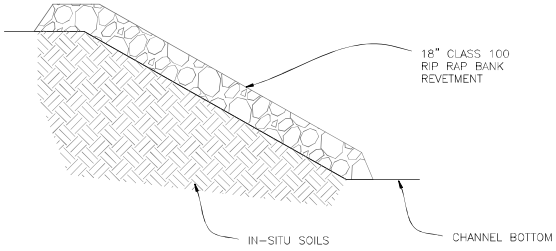
SOUTH CULVERT CROSS-SECTION DETAIL
N.T.S.



NORTH CULVERT CROSS-SECTION DETAIL
N.T.S.



NEW CHANNEL CROSS-SECTION
SCALE: N.T.S.



RIP RAP BANK REVETMENT SECTION
SCALE: N.T.S.

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TAX MAP 19-01-14-22 TAX LOT 2301

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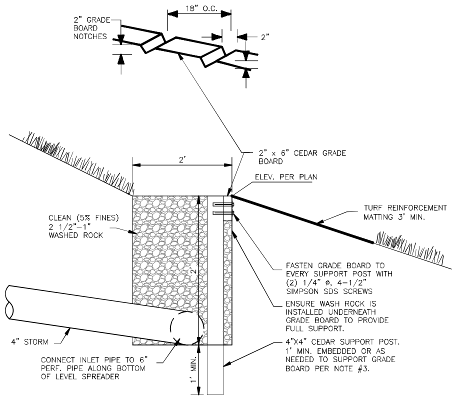
CROSS-SECTIONS PLAN

sheet:
C6.0

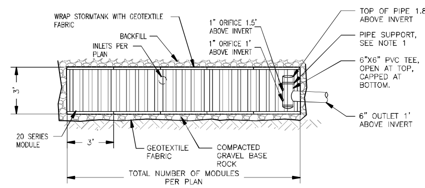
NOTES:

1. THIS TRENCH SHALL BE CONSTRUCTED SO AS TO PREVENT POINT DISCHARGE AND/OR EROSION.
2. TRENCH AND GRADE BOARD MUST BE LEVEL. ALIGN TO FOLLOW CONTOURS OF SITE.
3. SUPPORT POST SPACING AS REQUIRED BY SOIL CONDITIONS TO ENSURE GRADE BOARD REMAINS LEVEL. (6' MAX SPACING)
4. SPLICE ENDS OF GRADE BOARD @ CENTERLINE OF COMMON SUPPORT POST AND FASTEN EACH GRADE BOARD TO CONNECT PER NOTE ABOVE.
5. PROVIDE SUPPORT POST WITHIN 12" OF GRADE BOARD TERMINATIONS.
6. PLANT PT 408 NATIVE WETLAND MIX DOWNSLOPE OF LEVEL SPREADER FOR VEGETATED FILTER STRIP. PLANTING TO BE BY SEPTEMBER 15TH TO ALLOW FOR ESTABLISHMENT PRIOR TO FALL RAINS.

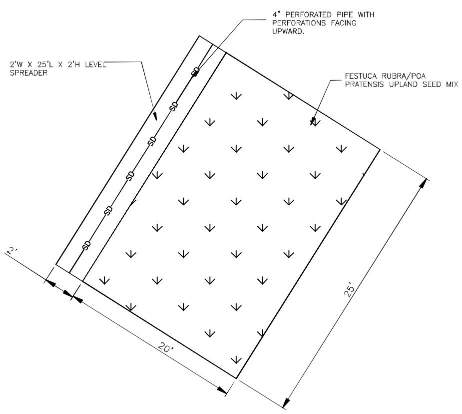


(1) LEVEL SPREADER & VEGETATED FILTER STRIP SECTION VIEW
SCALE: N.T.S.

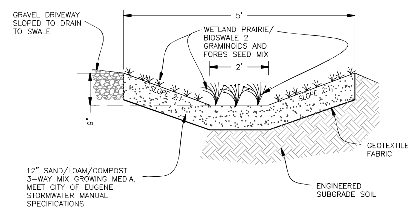
NOTES:
1. PIPE SUPPORTS SHALL BE ANCHORED AT 3' MAX SPACING. PIPE SUPPORT TO BE SS STRAP 1/16" THICK X 1" WIDE BOLTED TO STRUCTURE WALL WITH 3/8" DIAM SS EXPANSION BOLTS.
2. INSTALLATION, BACKFILL AND COMPACTION SHALL CONFORM TO MANUFACTURERS SPECIFICATIONS. CONTACT ENGINEER TO WITNESS INSTALLATION.
3. PERFORM TANK WATER-TIGHTNESS TESTING, AS REQUIRED. CONTACT INSPECTOR TO WITNESS TESTING.



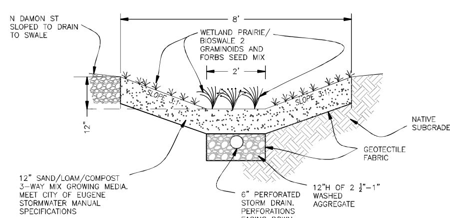
(2) BRENTWOOD 20 SERIES MODULE STORMTANK SECTION VIEW
SCALE: N.T.S.



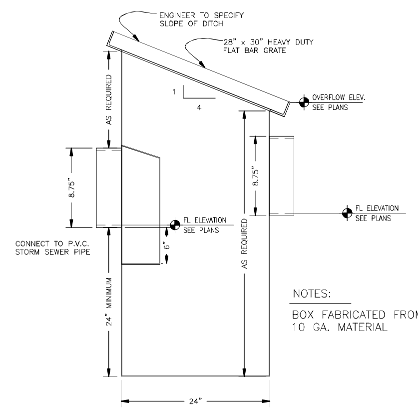
(3) LEVEL SPREADER & VEGETATED FILTER STRIP PLAN VIEW
SCALE: N.T.S.



(4) PRIVATE VEGETATED TREATMENT SWALE SECTION VIEW
SCALE: N.T.S.



(5) PUBLIC VEGETATED TREATMENT SWALE SECTION VIEW
SCALE: N.T.S.



(6) DITCH INLET CATCH BASIN SECTION VIEW
SCALE: N.T.S.

FOR SITE PLAN REVIEW ONLY
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TAX MAP 19-01-14-22 TAX LOT 2301

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REGISTERED PROFESSIONAL ENGINEER 62780PE
DIGITALLY SIGNED
OREGON
JULY 13, 2001
DAMIEN GILBERT
EXPIRES: JUNE 30, 2021

project title:

TRISTAN FERGUSON
N DAMON ST IMPROVEMENTS
N DAMON ST
LOWELL, OREGON
97452

revisions:

date: OCTOBER 27, 2020
drawn by: CM
designer: CM
project no: 19-264

DETAIL SHEET

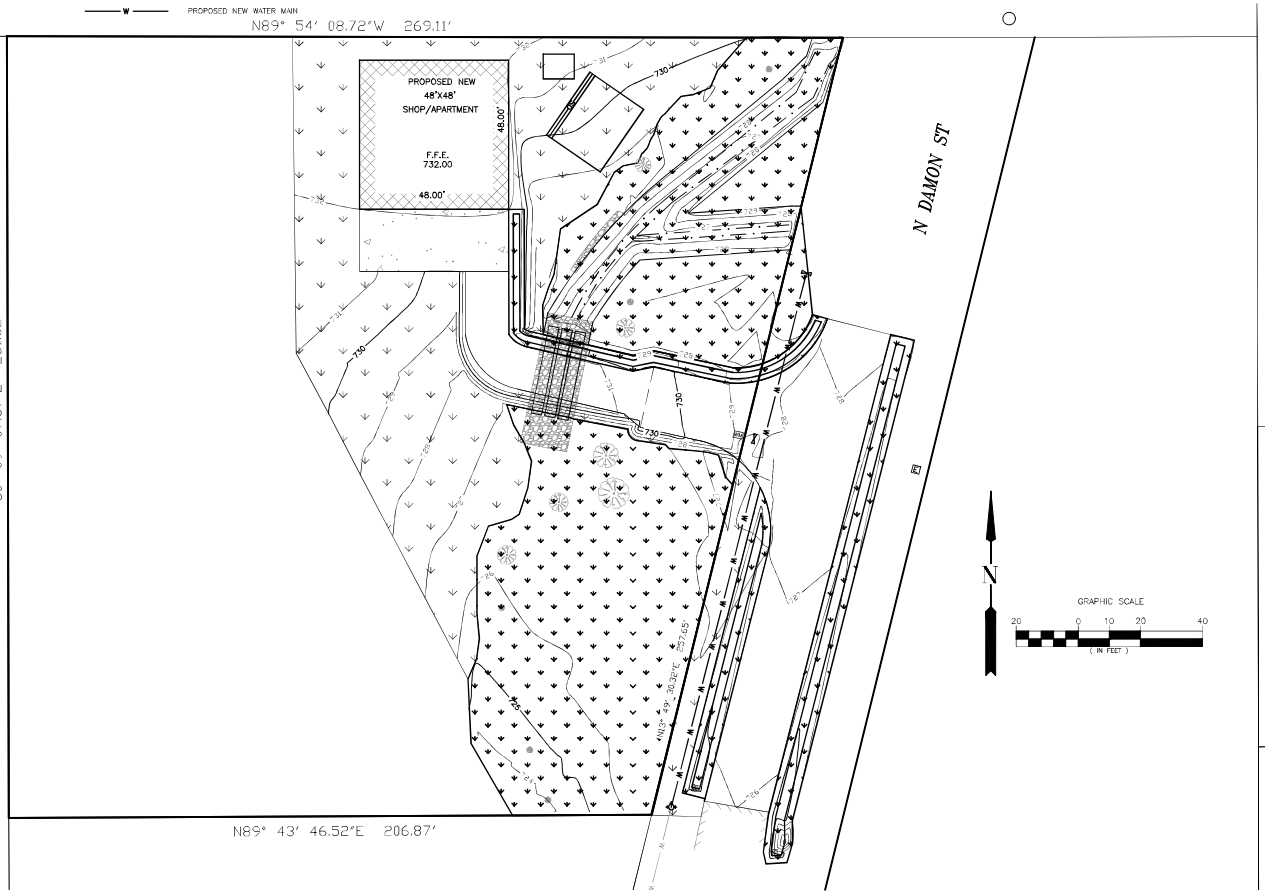
sheet: C7.0

LANDSCAPE NOTES:

THE PROPOSED RESTORATION AND LANDSCAPE SEEDING WILL INVOLVE HYDROSEEDING ONE-HALF OF THE SEED MIX FOLLOWED BY BROADCAST SEEDING THE REMAINING SEED.

PLANTING SCHEDULE

SYMBOL	SPECIES	DENSITY	QUANTITY	SIZE
	POA PRATENSIS/FESTUCA RUBRA MIX (OR APPROVED EQUAL)	8 LBS PER ACRE	0.3 ACRES	SEED
	WETLAND PRAIRIE/ BIOSWALE 2 GRAMINOIDS AND FORBS SEED MIX	8 LBS PER ACRE	0.4 ACRES	SEED



LEGEND

- EXISTING CONTOUR LINE
- PROPOSED CONTOUR LINE
- UPLAND SEED MIX
- WETLAND SEED MIX
- RIP RAP
- BUILDING
- DECIDUOUS TREE
- PROPOSED TOP OF BANK
- PROPOSED TOE OF BANK
- HDPE CULVERT
- MAPPED WETLAND
- CONCRETE

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TAX MAP 19-01-14-22 TAX LOT 2301

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LANDSCAPE PLAN

sheet: **L1.0**

ATTACHMENT J

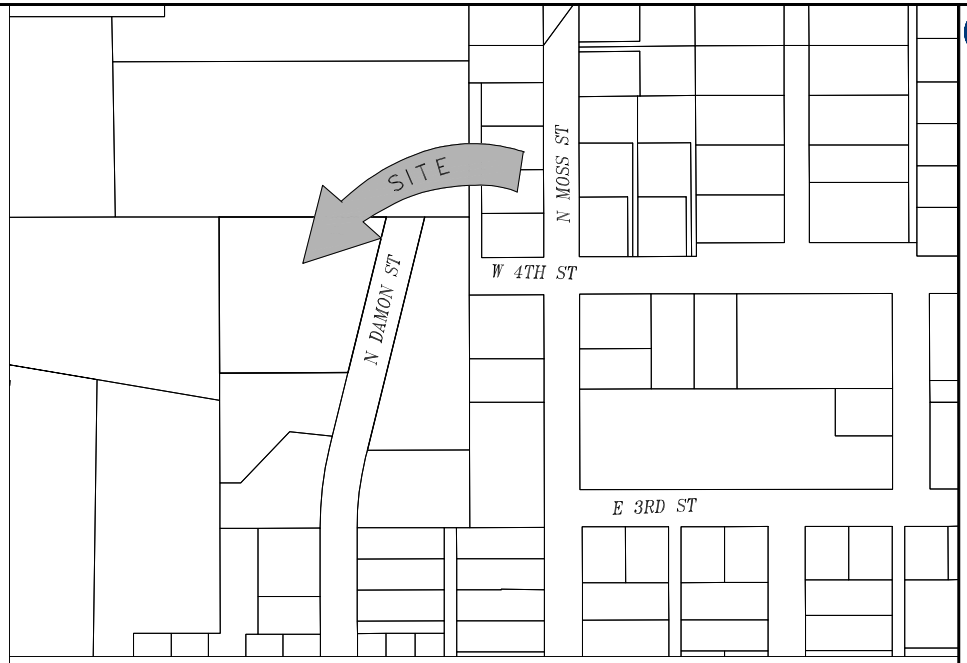
TRISTAN FERGUSON
N. DAMON ST. IMPROVEMENTS

VERTICAL DATUM: NAVD88

ELEVATIONS ARE BASED ON RTK GPS OBSERVATIONS TAKEN SEPT. 26, 2019 USING THE OREGON REAL-TIME GEODETIC NETWORK AND GEOID 12A. (NAVD88)

UTILITY PROVIDERS		
UTILITY	PROVIDER	PHONE NUMBER
WATER	CITY OF LOWELL	541-937-2157
SEWER	CITY OF LOWELL	541-937-2157
STORM	CITY OF LOWELL	541-937-2157
ELECTRIC	LANE ELECTRIC	541-484-1151
GAS	NW NATURAL	503-220-2415
TELEPHONE/INTERNET	CENTURY LINK	800-283-4237
TELEVISION	SPECTRUM	888-485-8165

LOCATION OF UTILITIES SHOWN ON THE PLANS IS APPROXIMATE. THE CONTRACTOR SHALL CALL THE "ONE-CALL" UTILITY LOCATION NUMBER, 1-800-332-2344, FOR FIELD LOCATION AND DEPTH BEFORE EXCAVATING.



VICINITY MAP - SCALE: 1"=100'

LEGEND

- EXISTING CONTOUR LINE (730)
- PROPOSED CONTOUR LINE (729)
- PROPERTY LINE
- EXISTING ASPHALT
- EXISTING FENCE
- EXISTING SANITARY SEWER (E)SS
- EXISTING TOP OF BANK
- EXISTING TOE OF BANK
- PROPOSED TOP OF BANK
- PROPOSED TOE OF BANK
- HDPE CULVERT
- DRAINAGE DIRECTION
- RIP RAP
- BUILDING
- DECIDUOUS TREE
- GRAVEL STREET/DRIVEWAY
- MAPPED WETLAND
- POTENTIAL FUTURE SHALLOW DETENTION
- STORMWATER FILTER STRIP
- CONCRETE
- DETENTION TANK
- INLET CATCH BASIN
- ELECTRICAL TRANSFORMER
- PROPOSED EASEMENT
- WATER METER
- PROPOSED NEW WATER MAIN W
- GRADE AND DIRECTION 1.0%

PROJECT TEAM

OWNER
TRISTAN FERGUSON
P.O. BOX 244
DEXTER, OR 97431
CONTACT: TRISTAN FERGUSON
TEL: 541-556-0882

ARCHITECT
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BRANCH ENGINEERING, INC.
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SPRINGFIELD, OR 97477
CONTACT: CHRIS MORRIS, E.I.T.
DAMIEN GILBERT, PE.
541-746-0637

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WETLAND CONSULTANT
WETLANDS AND WILDLIFE, LLC
375 W 4TH AVE SUITE 203
EUGENE, OR 97401
CONTACT: BRIAN MEIERING
PHONE: 541-214-6051

INDEX

C0.0 COVER
C1.0 EXISTING CONDITIONS
C2.0 SITE PLAN
C3.0 UTILITY PLAN
C4.0 GRADING PLAN
C5.0 N. DAMON ST. PLAN
C6.0 CROSS-SECTIONS
C7.0 DETAILS
L1.0 LANDSCAPE PLAN
A1.0 FLOOR PLAN
A1.1 CROSS-SECTIONS & WINDOW DETAILS
A3.0 ELEVATION VIEWS
A3.1 ELEVATIONS VIEWS

TABULATION OF COVERAGE

PROPERTY
TAX MAP 19-01-14-22, TAX LOT 2301
TOTAL PROPERTY AREA 1.37 AC
DEVELOPMENT AREA 0.30 AC

EXISTING CONDITIONS (DEVELOPMENT AREA)
IMPERVIOUS AREA
ROOF, PARKING AND SIDEWALKS 0 AC
PERVIOUS AREA 0.30 AC

PROPOSED CONDITIONS (DEVELOPMENT AREA)
IMPERVIOUS AREA
ROOF, PARKING AND SIDEWALKS 0.12 AC
PERVIOUS AREA 0.18 AC

PARKING REQUIREMENTS

VEHICULAR PARKING STANDARDS

LDC 9.513: SINGLE-FAMILY DWELLINGS: 1 BEDROOM - SINGLE SPACE PER DWELLING.

VEHICULAR PARKING TABULATION

SINGLE-FAMILY DWELLING: 1 DWELLING = 1 SPACE

EXISTING

STANDARD	0 SPACES
COMPACT	0 SPACES
ADA	0 SPACES
TOTAL	0 SPACES

PROPOSED
STANDARD 4 SPACES

OPEN SPACE

OPEN SPACE TOTALS
TOTAL OPEN SPACE
GROSS SITE AREA 1.37 AC
TOTAL OPEN SPACE 1.25 AC

SITE DATA

FLOODPLAIN AND FLOODWAY

BASED ON FLOOD INSURANCE RATE MAP NO. 41039C1695F, EFFECTIVE DATE: JUNE 2 1999, THIS PROPERTY IS OUTSIDE THE 500 YEAR FLOODPLAIN.

ELEVATION DATUM

ELEVATIONS SHOWN HEREON ARE IN NAVD'88 AS MEASURED BY GPS UNLESS OTHERWISE NOTED.

ZONING

R-1 RESIDENTIAL

SOIL TYPES

ACCORDING TO THE NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY, THE EXISTING SOILS ARE:
(113E) RITNER COBBLY SILTY CLAY LOAM, 12-30% SLOPES
(102C) PANTHER SILTY CLAY LOAM, 2-12% SLOPES

TAX MAP 19-01-14-22 TAX LOT 2301 & 77

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OREGON
DAMIEN GILBERT
EXPIRES: JUNE 30, 2021
Digitally signed by Damien Gilbert
Date: 2020.12.15 09:35:57 -08'00'

project title:
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TENTATIVE SITE PLAN REVIEW
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LOWELL, OREGON
97452

revisions:

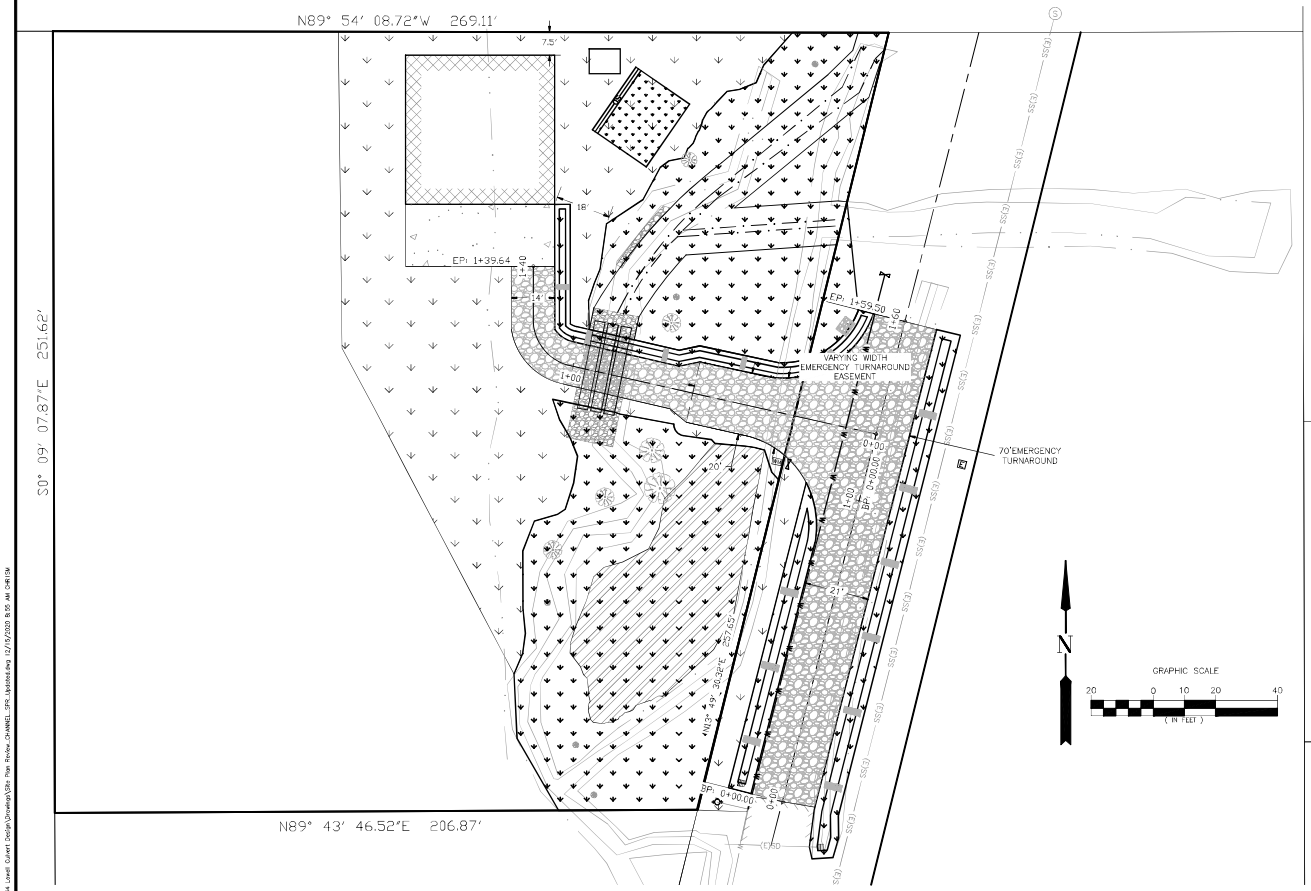
date: DECEMBER 15, 2020
drawn by: CM
designer: CM
project no: 19-264

COVER SHEET

sheet: **C0.0**

GENERAL NOTES

1. NORTH DAMON STREET RIGHT-OF-WAY STREET IMPROVEMENTS TO BE DEFERRED TO FUTURE TIME SHOULD THE ADJACENT LOTS BUILD-OUT. THE APPLICANT SHALL SIGN AN IRREVOCABLE WAIVER OF REMONSTRANCE TO A FUTURE ASSESSMENT TO PROVIDE FOR HALF-STREET IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO; SIDEWALK, CURB AND GUTTERS, STORM DRAINAGE, STREET LIGHTS AND SIGNAGE.



LEGEND

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- PROPOSED CONTOUR LINE
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- EXISTING ASPHALT
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- EXISTING SANITARY SEWER
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TAX MAP 19-01-14-22 TAX LOT 2301

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SITE PLAN

sheet: C2.0

UTILITY NOTES

1. CONTRACTOR TO POTHOLE EXISTING UTILITIES TO VERIFY DEPTH AND SIZE. NOTIFY ENGINEER OF ANY DISCREPANCIES OR CONFLICTS AT LEAST 48 HOURS BEFORE EXCAVATION/CONSTRUCTION.
2. CONTRACTOR TO COORDINATE WITH LANE ELECTRIC FOR NEW ELECTRICAL MAIN AND ALL ELECTRIC UTILITY CONNECTIONS AND DEVICES.
3. ELECTRIC VAULT MUST BE 10 FEET FROM TREES AND BUILDING EAVES AND 0.5 FEET FROM ALL OTHER UNDERGROUND UTILITIES.
4. CONTRACTOR TO COORDINATE WITH LOWELL PUBLIC WORKS DEPARTMENT FOR NEW WATER MAIN AS WELL AS ALL WATER UTILITY CONNECTIONS AND DEVICES.
5. CONTRACTOR TO COORDINATE WITH LOWELL PUBLIC WORKS DEPARTMENT FOR PRIVATE SANITARY LATERAL CONNECTION.
6. ALL DOMESTIC WATER LINES, METERS, VALVES AND HARDWARE THAT ARE IN CONTACT WITH POTABLE WATER ARE TO BE NSF APPROVED MATERIALS.

GENERAL NOTES

1. NORTH DAMON STREET RIGHT-OF-WAY STREET IMPROVEMENTS TO BE DEFERRED TO FUTURE TIME SHOULD THE ADJACENT LOTS BUILD-OUT. THE APPLICANT SHALL SIGN AN IRREVOCABLE WAIVER OF REMONSTRANCE TO A FUTURE ASSESSMENT TO PROVIDE FOR HALF-STREET IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO; SIDEWALK, CURB AND GUTTERS, STORM DRAINAGE, STREET LIGHTS AND SIGNAGE.

UTILITY CONSTRUCTION NOTES

- (200) NEW WATER MAIN CONNECTION TO EXISTING WATER MAIN. CONTRACTOR TO COORDINATE WITH LOWELL PUBLIC WORKS TO POTHOLE AND LOCATE WATER MAIN AND STUB.
- (201) CONNECT TO NEW WATER MAIN PER CITY OF LOWELL STANDARD DRAWING 407.
- (203) COORDINATE WITH LOWELL PUBLIC WORKS TO INSTALL NEW WATER METER.
- (204) FURNISH AND INSTALL NEW 8" WATER MAIN. TRENCH PER CITY OF LOWELL STANDARD DRAWING 301 AND THRUST BLOCK PER CITY OF LOWELL STANDARD DRAWING 401.
- (207) FURNISH AND INSTALL NEW DOMESTIC WATER LINE.
- (208) WATER CONNECTION POINT TO BUILDING. SEE PLUMBING PLANS.
- (209) FURNISH AND INSTALL NEW WEDGE GATE VALVE AND BLOWOFF VALVE PER CITY OF LOWELL STANDARD DRAWINGS 403 & 404.
- (210) FURNISH AND INSTALL NEW WEDGE GATE VALVE PER CITY OF LOWELL STANDARD DRAWING 403.
- (300) FURNISH AND INSTALL 8" WASTEWATER TEE FITTING AND REDUCERS TO NEW 6" WASTEWATER SERVICE LINE. COORDINATE WITH LOWELL PUBLIC WORKS TO LOCATE AND CONNECT TO EXISTING 8" WASTEWATER PIPE PER CITY OF LOWELL STANDARD DRAWING 311.
- (301) WASTEWATER CONNECTION POINT TO BUILDING. SEE PLUMBING PLANS.
- (303) FURNISH AND INSTALL 6" WASTEWATER PIPE @ 2% SLOPE MINIMUM. SEPARATE FROM WATER AND STORM PIPES PER OARs.
- (304) INSTALL SANITARY CLEANOUT WITH 6" THICK CONCRETE PAD 6" OUTSIDE CLEANOUT LIMOITS PER CITY OF LOWELL STANDARD DRAWING 313.
- (401) FURNISH AND INSTALL INLET CATCH BASIN PER DETAIL, SHEET C7.0.
- (404) FURNISH AND INSTALL STORMWATER CLEANOUT CITY OF LOWELL STANDARD DRAWING 313.
- (421) FURNISH AND INSTALL 4" STORMWATER PIPE WITH TRACER WIRE AT 1% SLOPE UNLESS OTHERWISE NOTED IN PLANS.
- (423) FURNISH AND INSTALL 8" PERFORATED STORMWATER PIPE.
- (424) FURNISH AND INSTALL 8" STORMWATER PIPE WITH TRACER WIRE.
- (425) CONSTRUCT LEVEL SPREADER PER DETAIL, SHEET C7.0.
- (427) CONSTRUCT STOMRWATER CHANNEL PER SECTION, SHEET C6.0.
- (428) FURNISH AND INSTALL BRENTWOOD STORMTANK DETENTION FACILITIES PER DETAIL, SHEET C7.0.
- (429) FURNISH AND INSTALL 3–40" HDPE CULVERTS AT 2% SLOPE.
- (430) CONSTRUCT CLASS 100 RIP RAP INLET/OUTLET PROTECTION AND CULVERT BEDDING PER CROSS-SECTION, SHEET C6.0.
- (431) CONSTRUCT TREATMENT SWALE PER DETAIL, SHEET C7.0.
- (432) FURNISH AND INSTALL CLASS 100 RIP RAP BANK REVETMENT PER SECTION, SHEET C6.0.
- (433) FURNISH AND INSTALL CLASS 50 RIP RAP WEIR PER SECTIONS, SHEET C6.0.
- (434) FURNISH AND INSTALL CLASS 50 RIP RAP CHECK DAM PER SECTION, SHEET C7.0.
- (504) APPROXIMATE LOCATION OF JOINT-UTILITY TRENCH. FURNISH AND INSTALL ELECTRICAL CONDUIT.
- (505) APPROXIMATE LOCATION OF ELECTRICAL METER PANELS. COORDINATE WITH LANE ELECTRIC FOR INSTALLATION.
- (506) APPROXIMATE LOCATION OF ELECTRICAL TRANSFORMER. FURNISH AND INSTALL 120/240V SINGLE PHASE PADMOUNT CONCRETE TRANSFORMER VAULT. COORDINATE WITH LANE ELECTRIC FOR INSTALLATION.
- (514) CONNECT TO EXISTING TRANSFORMER. WORK DONE BY LANE ELECTRIC.

NOTES

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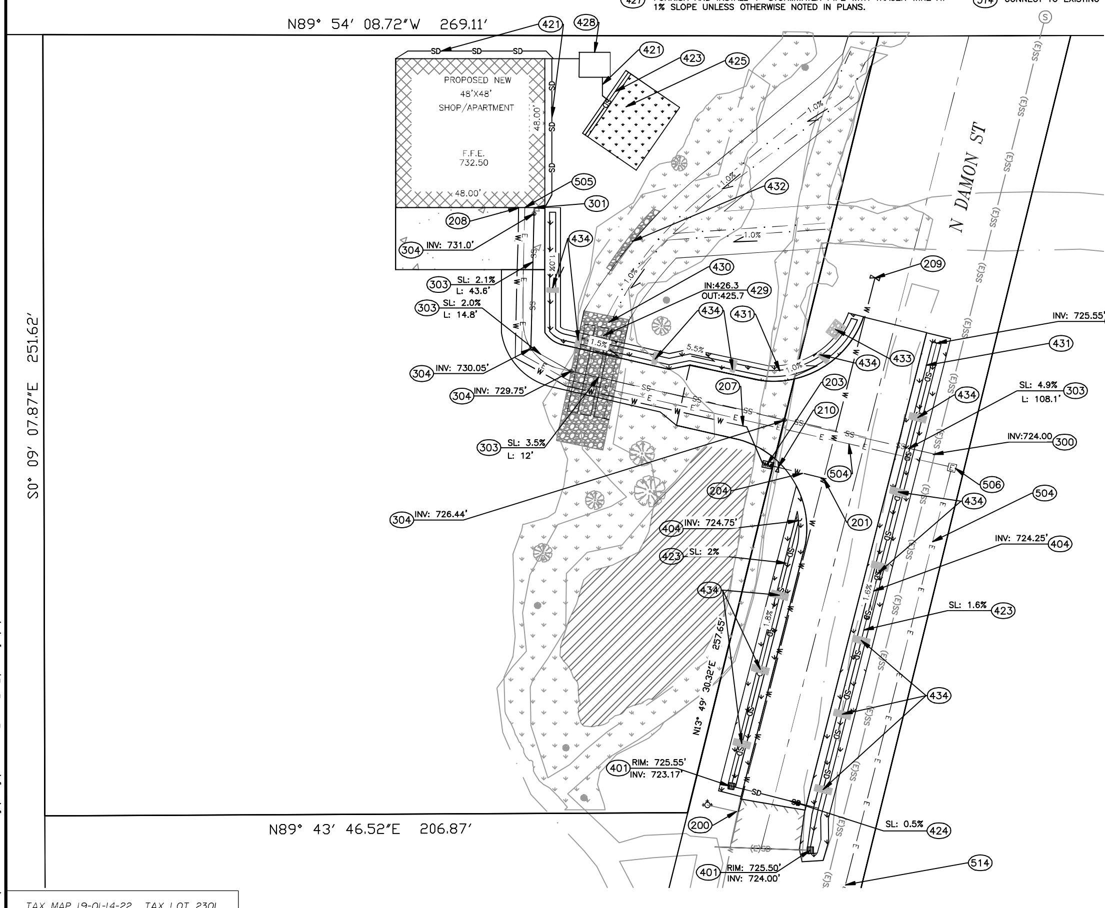

LEGEND

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- PROPOSED NEW WATER MAIN
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GRAPHIC SCALE 20 0 10 20 40 (IN FEET)

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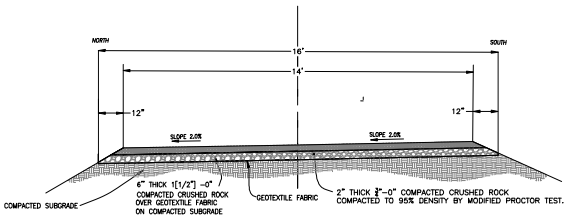
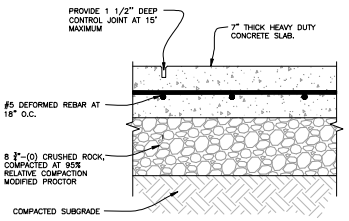
UTILITY PLAN

sheet: C3.0



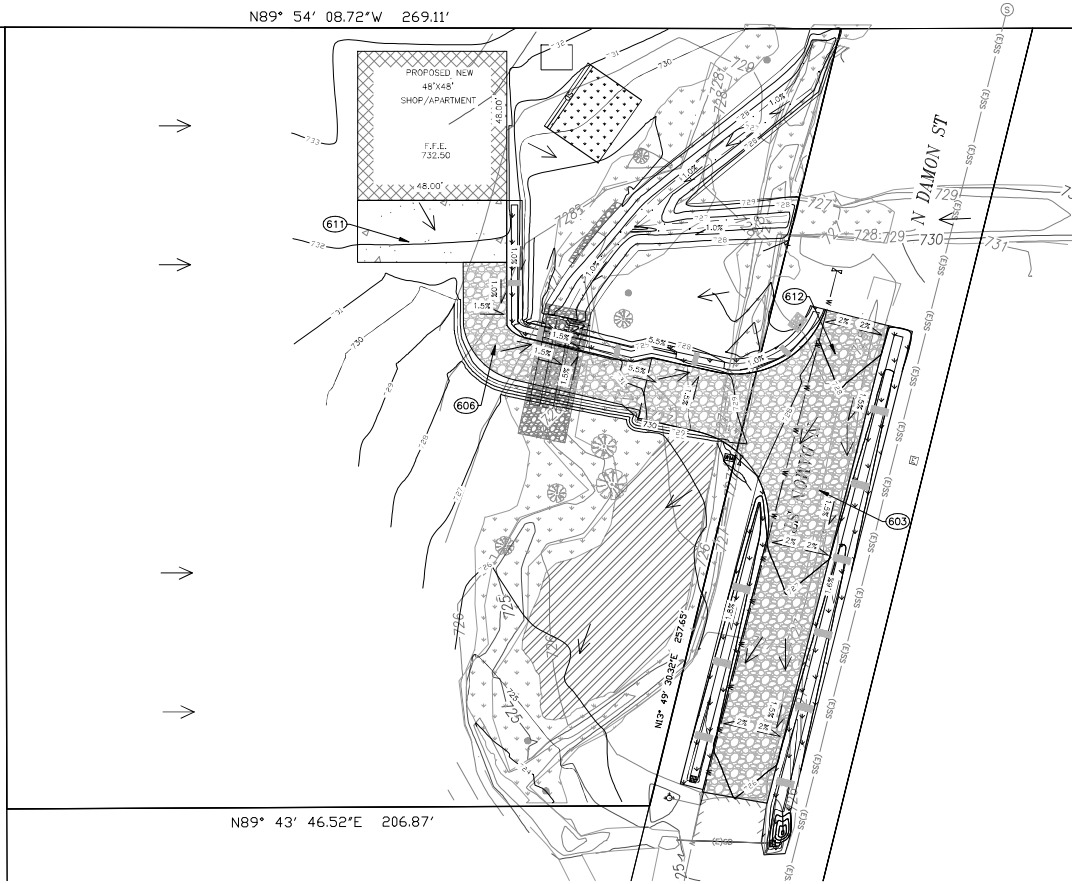
PRIVATE DRIVEWAY SECTION
SCALE: N.T.S.



HEAVY DUTY CONCRETE PARKING SECTION
SCALE: N.T.S.

GRADING CONSTRUCTION NOTES

(603) CONSTRUCT GRAVEL PAVING SECTION PER SECTION, SHEET C5.0.
(606) CONSTRUCT PRIVATE DRIVEWAY PER SECTION, THIS SHEET.
(611) CONSTRUCT CONCRETE PARKING PAD PER SECTION, THIS SHEET.
(612) CONSTRUCT 70' WIDE GRAVEL EMERGENCY TURNAROUND.



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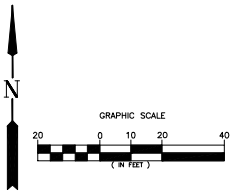

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GRADING PLAN

sheet: **C4.0**

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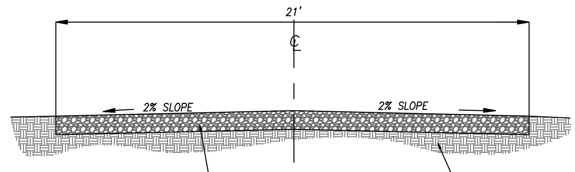

N. DAMON ST. CROSS-SECTION
SCALE: N.T.S.

LEGEND

730	EXISTING CONTOUR LINE
729	PROPOSED CONTOUR LINE
	PROPERTY LINE
	EXISTING ASPHALT
	EXISTING FENCE
(E)SS	EXISTING SANITARY SEWER
	EXISTING TOP OF BANK
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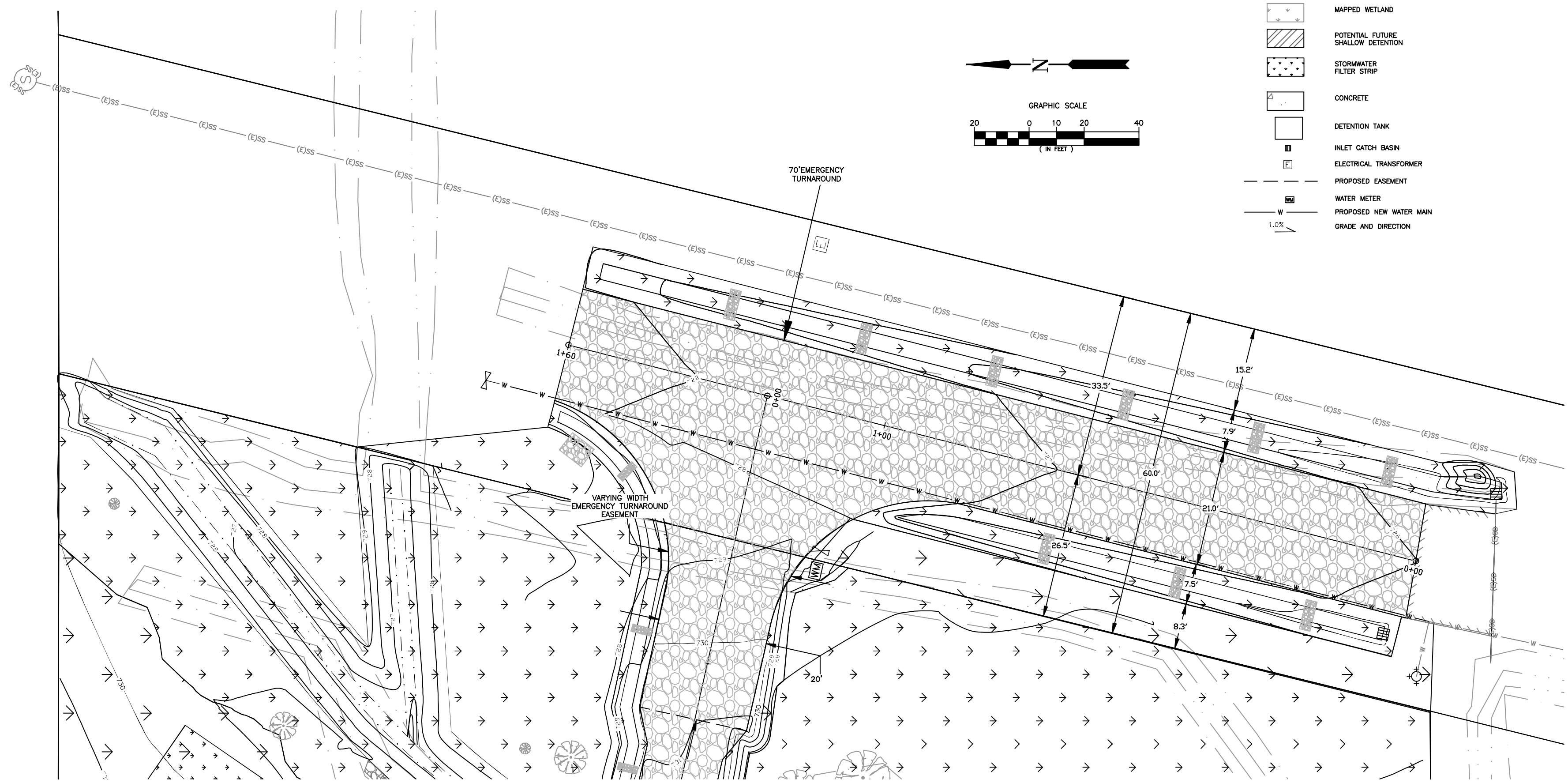
E	ELECTRICAL TRANSFORMER
	PROPOSED EASEMENT
	WATER METER
W	PROPOSED NEW WATER MAIN
1.0%	GRADE AND DIRECTION

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)



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TAX MAP 19-01-14-22 TAX LOT 2301

Z:\2019\19-264 Lowell Culvert Design\Drawings\Site Plan Review_CHANNEL_SPR_Updated.dwg 12/15/2020 8:55 AM CHRISM

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REGISTERED PROFESSIONAL ENGINEER #62780PE DIGITALLY SIGNED OREGON DAMIEN GILBERT
EXPIRES: JUNE 30, 2021

project title:

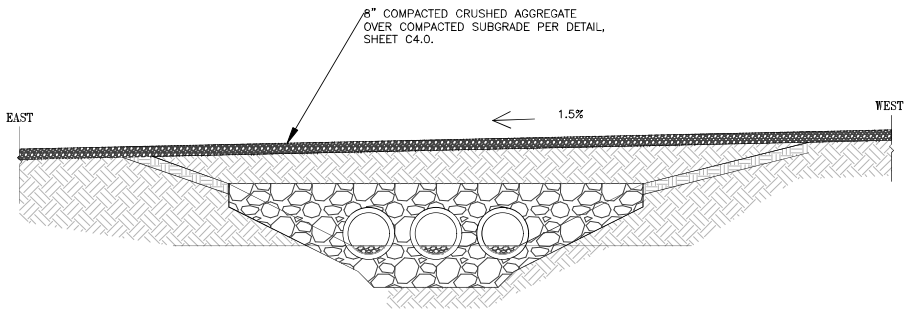
TRISTAN FERGUSON
TENTATIVE SITE PLAN REVIEW
N DAMON ST
LOWELL, OREGON
97452

revisions:

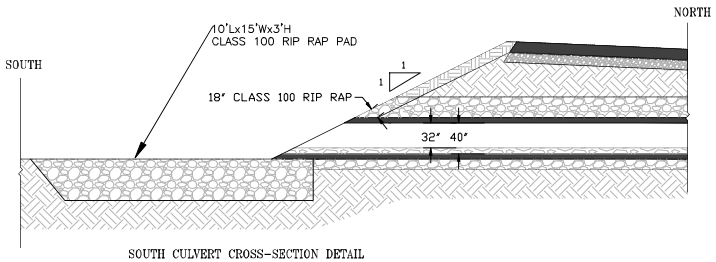
date: DECEMBER 15, 2020
drawn by: CM
designer: CM
project no: 19-264

N. DAMON ST IMPROVEMENT PLAN

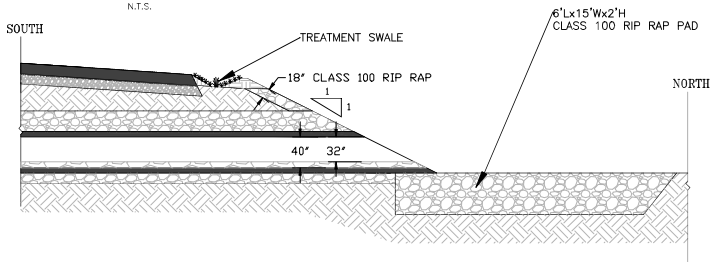
sheet: C5.0



CULVERT CROSSING CROSS-SECTION DETAIL
N.T.S.



SOUTH CULVERT CROSS-SECTION DETAIL
N.T.S.



NORTH CULVERT CROSS-SECTION DETAIL
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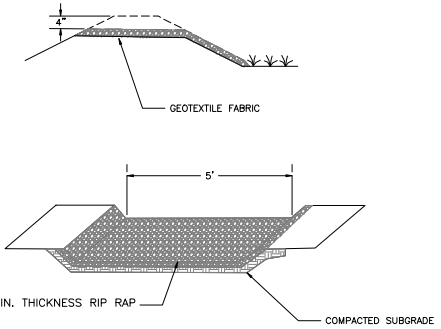

OVERFLOW WEIR SECTIONS
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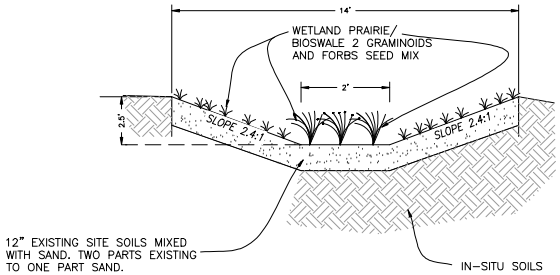

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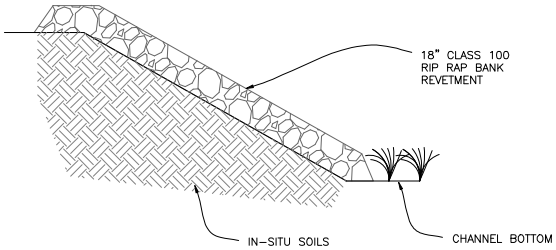

RIP RAP BANK REVETMENT SECTION
SCALE: N.T.S.

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TAX MAP 19-01-14-22 TAX LOT 2301

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REGISTERED PROFESSIONAL ENGINEER
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OREGON
DAMIEN GILBERT
EXPIRES: JUNE 30, 2021

project title:

TRISTAN FERGUSON
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date: DECEMBER 15, 2020
drawn by: CM
designer: CM
project no: 19-264

CROSS-SECTIONS PLAN

sheet:
C6.0

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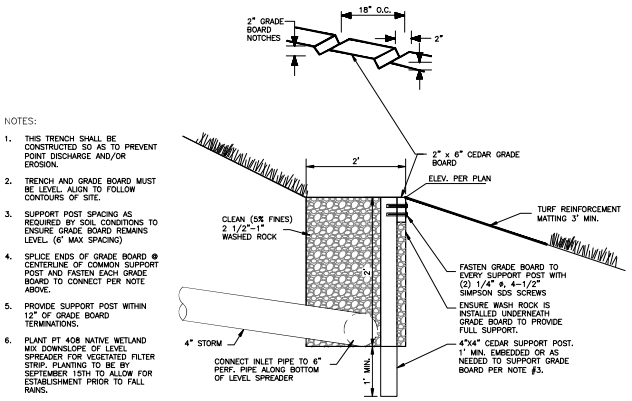
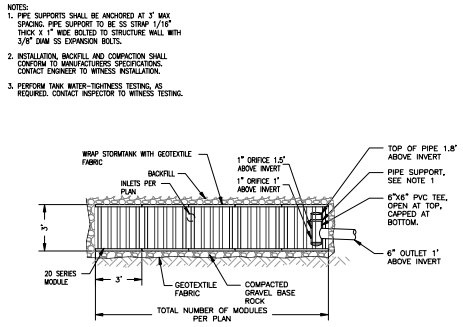
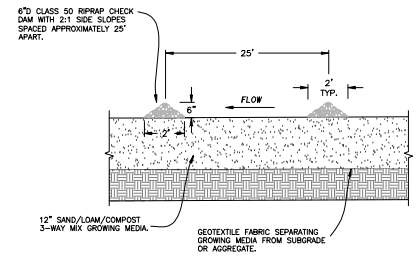


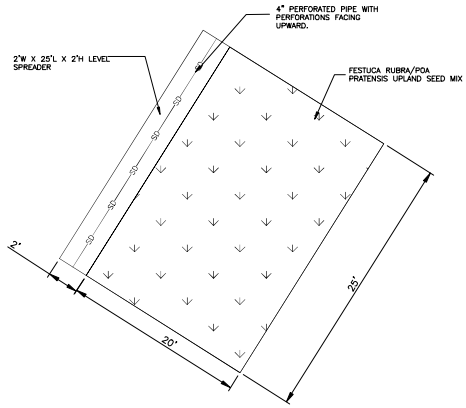
1 *LEVEL SPREADER & VEGETATED FILTER STRIP SECTION VIEW*
SCALE: N.T.S.



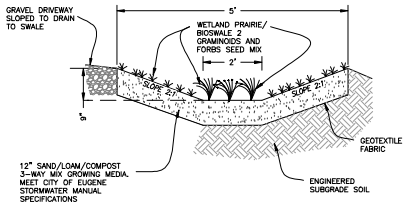
2 *BRENTWOOD 20 SERIES MODULE STORMTANK SECTION VIEW*
SCALE: N.T.S.



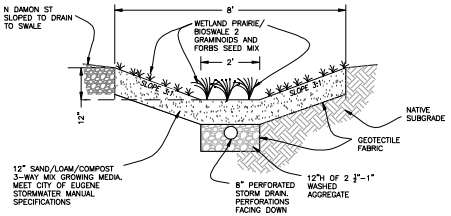
2 *TREATMENT GRASSY SWALE CHECK DAM SECTION VIEW*
SCALE: N.T.S.



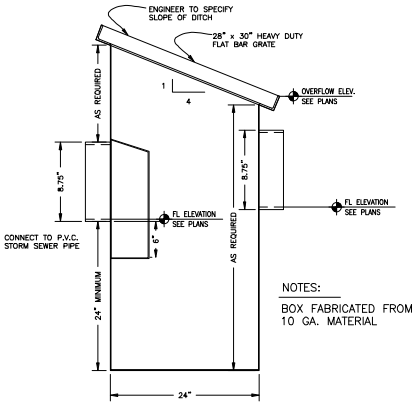
3 *LEVEL SPREADER & VEGETATED FILTER STRIP PLAN VIEW*
SCALE: N.T.S.



4 *PRIVATE GRASSY SWALE SECTION VIEW*
SCALE: N.T.S.



5 *PUBLIC GRASSY SWALE SECTION VIEW*
SCALE: N.T.S.



6 *DITCH INLET CATCH BASIN SECTION VIEW*
SCALE: N.T.S.

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TAX MAP 19-01-14-22 TAX LOT 2301

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www.BranchEngineering.com
Springfield OR | Albany OR

REGISTERED PROFESSIONAL ENGINEER #62780PE DIGITALLY SIGNED OREGON DAMIEN GILBERT
EXPIRES: JUNE 30, 2021

project title:

TRISTAN FERGUSON
TENTATIVE SITE PLAN REVIEW
N DAMON ST
LOWELL, OREGON
97452

revisions:

date: DECEMBER 15, 2020
drawn by: CM
designer: CM
project no: 19-264

DETAIL SHEET

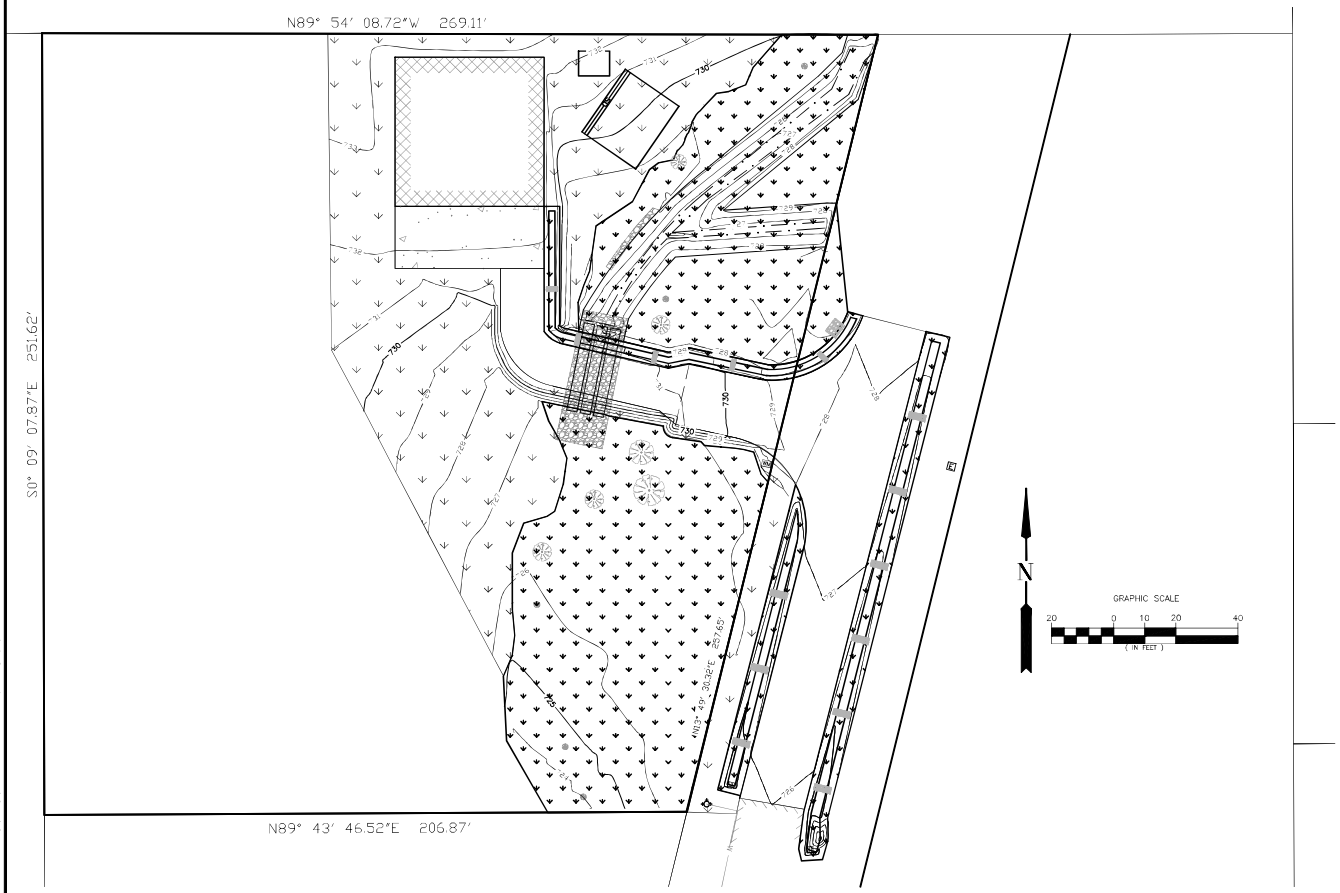
sheet: C7.0

LANDSCAPE NOTES:

THE PROPOSED RESTORATION AND LANDSCAPE SEEDING WILL INVOLVE HYDROSEEDING ONE-HALF OF THE SEED MIX FOLLOWED BY BROADCAST SEEDING THE REMAINING SEED.

PLANTING SCHEDULE

SYMBOL	SPECIES	DENSITY	QUANTITY	SIZE
	POA PRATENSIS/FESTUCA RUBRA MIX (OR APPROVED EQUAL)	8 LBS PER ACRE	0.3 ACRES	SEED
	WETLAND PRAIRIE/ BIOSWALE 2 GRAMINOIDS AND FORBS SEED MIX	8 LBS PER ACRE	0.4 ACRES	SEED



LEGEND

- EXISTING CONTOUR LINE
- PROPOSED CONTOUR LINE
- UPLAND SEED MIX
- WETLAND SEED MIX
- RIP RAP
- BUILDING
- DECIDUOUS TREE
- PROPOSED TOP OF BANK
- PROPOSED TOE OF BANK
- HDPE CULVERT
- MAPPED WETLAND
- CONCRETE

TAX MAP 19-01-14-22 TAX LOT 2301

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Springfield OR | Albany OR

REGISTERED PROFESSIONAL ENGINEER
#62769PE
DIGITALLY SIGNED
OREGON
DAMIEN GILBERT
EXPIRES: JUNE 30, 2021

project title:

TRISTAN FERGUSON
TENTATIVE SITE PLAN REVIEW
N DAMON ST
LOWELL, OREGON
97452

revisions:

date: DECEMBER 15, 2020
drawn by: CM
designer: CM
project no: 19-264

LANDSCAPE PLAN

sheet: **L1.0**

ATTACHMENT K

AFFIDAVIT OF MAILING

JAN 04 2021

LANE COUNCI L OF GOVERNMENTS
859 Willamette Street. Suite 500
Eugen, OR 97401

I, Henry Hearley, contracted planner, depose and state that I mailed, by regular first-class mail, on **JANUARY 4, 2021,** a notice of a public hearing for a SITE PLAN REVIEW at Map and Tax Lot 19-01-14-22-02301, known as the **LU 2020 01** in the City of Lowell to the addresses contained herein.

Signature

Henry Hearley

Print Name

JAN 04 2021

CITY OF LOWELL
NOTICE OF PUBLIC HEARING
Mailing Date JANUARY 4, 2021

Notice is hereby given for a Public Hearing by the Lowell Planning Commission for a **Site Plan Review** for new homesite development.

The Hearing will occur on February 3, 2021 at 7:00 pm remotely via ZOOM.

Requested Action: new homesite development with accompanying garage located at on Map and Tax Lot 19-01-14-22-02301

Owner/Applicant: Tristan Ferguson
Applicant's Representative: Chris Morris, Branch Engineering
Property Location: No Address Assigned
Assessor Map: 19-01-14-22
Tax Lot: 2301
Existing Area: 1.37 acres
Existing Zone: R-1

The Lowell Land Use Development Code specifies the applicable procedures and criteria for evaluation of the requested action. Applicable Code Sections include: **Section 9.250 Site Plan Review**, and **Section 9.204 Application Site Plan.** The specific criteria will be addressed in the Staff Report. See map on reverse.

A copy of the Application, all documents and evidence relied upon by the Applicant and the Staff Report containing the applicable criteria will be available for inspection at the Lowell City Hall at least seven days prior to the public hearing meeting or by contacting Henry Hearley for an electronic copy. Paper copies can be provided at a reasonable cost of printing.

Failure of an issue to be raised in the Hearing or by letter, or failure to provide sufficient detail to afford the decision makers an opportunity to respond to the issue precludes appeal to the Land Use Board of Appeals (LUBA) on that issue.

A Site Plan Review requires a Public Hearing. Oral testimony may be presented at the Hearing or written testimony may be delivered or mailed to the Lowell City Hall located at 107 East Third Street, Lowell, Oregon 97452 or emailed to Jeremy Caudle, City Administrator, at jcaudle@ci.lowell.or.us or to Henry Hearley, Lane Council of Governments, 859 Willamette Street, Suite 500, Eugene, OR, 97401, hhearley@lcog.org 541-682-3089.

Oral and Written Testimony may also be presented at the public hearing remotely via Zoom.

To participate in the public hearing on Zoom, please email or call Jeremy to request the link.

Written Testimony shall be received by the City no later than 4:00 pm on February 3, 2021.

For additional information please write to City Hall at the above address or call City Hall at (541) 937-2157 or fax to 541-937-2066, or to Henry Hearley at the address listed in this notice.

Henry Hearley
LCOG
hhearley@lcog.org

Subject Property

JAN 04 2021

BOYLES PATRICK J & ONETA
PO BOX 477
LOWELL OR 97452

LOWELL NICHOLAS B & ROSE E
PO BOX 713
CRESWELL OR 97426

ERSPAMER ROBERT LEE
31 W 4TH ST # 33
LOWELL OR 97452

GEORGE LIVING TRUST
PO BOX 305
LOWELL OR 97452

GEORGE LIVING TRUST
PO BOX 305
LOWELL OR 97452

GEORGE LIVING TRUST
PO BOX 305
LOWELL OR 97452

GEORGE LIVING TRUST
PO BOX 305
LOWELL OR 97452

HARRISON ALAN S & PAMELA J
PO BOX 394
LOWELL OR 97452

VALENCIA JERRY L
PO BOX 246
LOWELL OR 97452

FERGUSON TRISTAN
PO BOX 244
DEXTER OR 97431

SPRINGER CLAY & MARITES
PO BOX 279
LOWELL OR 97452

DRAGT LON & SAMANTHA
306 N DAMON ST
LOWELL OR 97452

GRIGSBY LESLIE EARL
PO BOX 386
LOWELL OR 97452

COZAD LAURA M
PO BOX 552
LOWELL OR 97452

PARMENTER MICHAEL R & KELLY
PO BOX 131
LOWELL OR 97452

REID BYRON JAMES
PO BOX 2073
JASPER OR 97438

LEACH DAVID A & ROXEANNE D
135 W 2ND ST
LOWELL OR 97452

BOYLES PATRICK J & ONETA S
PO BOX 477
LOWELL OR 97452

RIBERAL GARY M & LISA D
PO BOX 86
LOWELL OR 97452

HALL MADONNA L & RICK R
PO BOX 72
LOWELL OR 97452

MARRON ARCHIE O & JEAN M
PO BOX 575
LOWELL OR 97452

DARLANE ROGERSON FAMILY TRUST
PO BOX 164
LOWELL OR 97452

ATTACHMENT L

Land Use Permit Application

__x__ Site Plan Review ____Lot Line Adjustment _____Partition _____Subdivision
____Conditional Use ____Variance _____Map Amendment _____Text Amendment
____Annexation ____Vacation _____Other, specify _____

Please complete the following application. If any pertinent required information or material is missing or incomplete, the application will not be considered complete for further processing. If you have any questions about filling out this application, please contact staff at Lowell City Hall, phone (541) 937-2157, 107 East Third, Lowell.

List all Assessor's Map and Tax Lot numbers of the property included in the request.

Map# 19-01-14-22 Lot # 2301

Map# 19-01-14-22 Lot # N. Damon St ROW

Map# _____ Lot # _____

Street Address (if applicable)**:** _____

Area of Request (square feet/acres): 1.37 acres

Existing Zoning: Residential

Existing Use of the Property: Undeveloped

Proposed Use of the Property Residential

Pre-application Conference Held: No _____ Yes __X_____ If so, Date ___10/8/19_____

Submittal Requirements:

___x___ 1. Copy of deed showing ownership or purchase contract with property legal description.

___x___ 2. Site Plan/Tentative Plan with, as a minimum, all required information. Submit one copy of all plans11X17 or smaller; 12 copies of all plans larger than 11x17. (See attached checklist for required information)

___x___ 3. Applicant's Statement: Explain the request in as much detail as possible. Provide all information that will help the decision makers evaluate the application, including addressing each of the decision criteria for the requested land use action.

_____ 4. Other submittals required by the City or provided by the applicant. Please List.

a. DSL Removal-Fill Permit b. _____

c. DEQ 401 WQC Permit d. _____

e. Stormwater Analysis Report f. _____

___x___ 5. Filing Fee: Amount Due: $290.

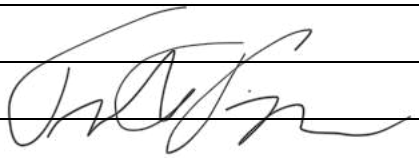
By signing, the undersigned certifies that he/she has read and understood the submittal requirements outlined, and that he/she understands that incomplete applications may cause delay in processing the application. I (We), the undersigned, acknowledge that the information supplied in this application is complete and accurate to the best of my (our) knowledge. I (We) also acknowledge that if the total cost to the City to process this application exceeds 125% of the application fee, we will be required to reimburse the City for those additional costs in accordance with Ordinance 228.

PROPERTY OWNER

Name (print): Tristan Ferguson Phone: 541-556-0882

Address: P.O. Box 244

City/State/Zip: Dexter, OR 97431

Signature: 

APPLICANT, If Different

Name (print): _____ Phone: _____

Company/Organization: _____

Address: _____

City/State/Zip: _____

Signature: _____

E-mail (if applicable): _____

APPLICANTS REPRESENTATIVE, if applicable

Name (print): Chris Morris Phone: 541-746-0637

Company/Organization: Branch Engineering, Inc.

Address: 310 5th St

City/State/Zip: Springfield, OR 97477

E-mail (if applicable): chrism@branchengineering.com

For City Use. Application Number _____

Date Submitted: _____ Received by: _____ Fee Receipt # _____

Date Application Complete: _____ Reviewed by: _____

Date of Hearing: _____ Date of Decision _____ Date of Notice of Decision _____

APPLICATION SITE PLAN REQUIREMENTS CHECKLIST
Lowell Land Development Code, Section 2.140

Applications for land divisions or land use requests that require a site plan shall submit the site plan on 8 1/2 x 11 inch or 11 x 17 inch black/white reproducible sheets for copying and distribution. Larger drawings may be required for presentation and City review. Drawings shall be drawn to scale. The scale to be used shall be in any multiple of 1 inch equals 10 feet (1" = 20', 1" = 30". 1' = 100', etc.) and may be increased or decreased as necessary to fit the sheet size. The Application and site plan shall show clearly and with full dimensioning the following information, as applicable, for all existing and proposed development. It is understood that some of the requested information may not apply to every application.

__x__ The names of the owner(s) and applicant, if different.

__x__ The property address or geographic location and the Assessor Map number and Tax Lot number.

__x__ The date, scale and northpoint.

__x__ A vicinity map showing properties within the notification area and roads. An Assessor Map, with all adjacent properties, is adequate.

__x__ Lot dimensions.

__x__ The location, size, height and uses for all existing and proposed buildings.

__x__ Yards, open space and landscaping.

__x__ Walls and fences: location, height and materials.

_____ Off-street parking: location, number of spaces, dimensions of parking area and internal circulation patterns.

__x__ Access: pedestrian, vehicular, service, points of ingress and egress.

_____ Signs: location, size, height and means of illumination.

_____ Loading: location, dimension, number of spaces, internal circulation.

_____ Lighting: location and general nature, hooding devices.

__x__ Street dedication and improvements.

__x__ Special site features including existing and proposed grades and trees, and plantings to be preserved and removed.

__x__ Water systems, drainage systems, sewage disposal systems and utilities.

__x__ Drainage ways, water courses, flood plain and wetlands.

_____ The number of people that will occupy the site including family members, employees or customers.

_____ The number of generated trips per day from each mode of travel by type: employees, customers, shipping, receiving, etc.

_____ Time of operation, where appropriate. Including hours of operation, days of the week and number of work shifts.

_____ Specifications of the type and extent of emissions, potential hazards or nuisance characteristics generated by the proposed use. The applicant shall accurately specify the extent of emissions and nuisance characteristics relative to the proposed use. Misrepresentation or omission of required data shall be grounds for denial or termination of a Certificate of Occupancy.

Uses which possess nuisance characteristics or those potentially detrimental to the public health, safety and general welfare of the community including, but not limited to; noise, water quality, vibration, smoke, odor, fumes, dust, heat, glare or electromagnetic interference, may require additional safeguards or conditions of use as required by the Planning Commission or City Council.

All uses shall meet all applicable standards and regulations of the Oregon State Board of Health, the Oregon Department of Environmental Quality, and any other public agency having appropriate regulatory jurisdiction. City approval of a land use application shall be conditional upon evidence being submitted to the City indicating that the proposed activity has been approved by all appropriate regulatory agencies.

__x__ Such other data as may be necessary to permit the deciding authority to make the required findings.

NOTE: Additional information may be required after further review in order to adequately address the required criteria of approval.

December 15, 2020

TENTATIVE SITE PLAN REVIEW
TRISTAN FERGUSON IMPROVEMENTS, TAX MAP 19-01-14-22, TAX LOT 2301 AND N. DAMON ST. RIGHT-OF-WAY
WRITTEN STATEMENT
Branch Engineering Inc. Project No. 19-264

This site plan review application is for the property west of North Damon Street in Lowell, Oregon, Tax Map 19-01-14-22, Tax Lots 2301 and North Damon Street right-of-way. Tax Lot 2301 is currently vacant with no improvements. The proposed improvements to the private undeveloped parcel include a single building, concrete parking pad, gravel driveway with fish passage culverts and associated utilities. The public improvements within the public North Damon Street right-of-way are a gravel street extension, electrical extension with transformer and concrete pad and public water line extension.

The applicable approval criteria are addressed below.

Section 9.250 Site Plan Review

(a) Site Plan Review Application

Section 9.203 Application Procedure

9.203(a)-(n) *Application Procedure*

The applicant understands the application procedure, has submitted all applicable items with this submittal and has paid the applicable fees.

Section 9.204 Application Site Plan

9.204(a)-(v) *Application Site Plan Set*

The project complies with Section 9.204(a) thru Section 9.204(v) as all applicable components have been submitted by the applicant with the Site Plan Review package and can be seen on plans C0.0, C1.0, C2.0, C3.0 and C4.0.

(b) Design Criteria

9.250(b)(1) *Zoning District Standards*

The project complies with Section 9.411 zoning district standards for a single-family residential district (R-1) development. The development is for one single-family residence on a legal lot. The development meets the minimum lot size of 7,000 sq. ft. as it is a total of 59,710 sq. ft. It also meets the minimum lot width of 60 feet as it is 251.62 feet wide at the narrowest point. Additionally, the development meets the minimum lot depth of 80 feet as it is 206.87 feet deep at the shallowest point. The building coverage is much less than the maximum 35% at approximately 4% coverage. The highest roof peak will be designed to be under the maximum 30 feet in height from the average adjacent ground elevation. As illustrated in the plan set, the project meets all yard setback requirements with a minimum of 20 feet front yard, 7.5 feet side yard and 10 feet rear yard setbacks.

9.250(b)(2) *Applicable City Code and Ordinances (General Development Standards)*

The proposed development complies with all directly and loosely applicable General Development Standards within Section 9.501 thru Section 9.530. As stated above in Section 9.250(b)(1), the development complies with Section 9.504 Height Standards, 9.507 Lot Size, and 9.509 Yard Setbacks. The proposed development complies with Section 9.511 as the proposed structures meet the 15-foot drainageway setback requirements. The development complies with Section 9.513 and Section 9.514 with the single-bedroom loft apartment having more than two off-street parking spots for the unit, the locations of which are shown on the drawings and comply with all applicable criteria under Section 9.513(a)-(j). The development complies with Section 9.516 as the lot abuts a street for greater than the minimum 16 feet. However, as the street will not be paved as part of this development, it is illogical to pave the driveway at this time. The applicant can pave if and when the street is improved and paved.

As allowed under Section 9.517(a), the applicant is asking the City to defer the public street improvements conditional on the applicant signing an Irrevocable Waiver of Remonstrance since there is not an existing sidewalk or storm drain system to which to connect. The Irrevocable Waiver of Remonstrance to a future assessment will be providing for half-street improvements which include, but is not limited to, sidewalk, curb and gutter, storm drainage, street lights and signage. As stated above, the applicant will be providing an Irrevocable Waiver of Remonstrance to a future assessment to comply to Section 9.518.

The development meets Section 9.520 as the development and stormwater has been designed to both treat the 25-year storm event for the project as well as pass the 25-year storm event for full build-out for the upstream portions of the City, per the Storm Drainage Master Plan. The development conforms to Section 9.521 as a public water line extension is designed and will be installed with the proposed development. The development design complies to Section 9.522 with the sanitary sewer line connecting to the existing sanitary sewer within the North Damon Street Right-of-Way. The proposed development complies to Section 9.523 as the proposed design includes all utilities located underground with the extension of electrical with an above ground transformer and pad located at the property line near the electrical stub to the proposed building. The proposed development conforms to Section 9.524 as the design applies a PUE for the public water and electric extension as well as an Emergency Vehicle Turnaround easement for the proposed fire hammerhead turnaround. The proposed site development complies to all grading requirements of 9.527. All yard setbacks that are impacted will be landscaped per Section 9.528 with native vegetation while the undeveloped portions will not be landscaped as they meet the exceptions stated within this Section.

9.250(b)(2) *Applicable City Code and Ordinances (Special Development Standards)*

The project complies with Section 9.601 thru 9.636. The development complies with all Wetlands Development Standards specified within Section 9.610 and has received permits from Oregon Department of State Lands and US Army Corps of Engineers for removal-fill of waters of the State and US, Oregon DEQ for 401 Water Quality Certification and NOAA National Marine Fisheries Services for SLOPES V under the Endangered Species Act. The project is in Zone X, Area of Minimal Flooding and is not considered hillside development. Thus, Sections 9.620 and 9.630 are not applicable.

9.250(b)(3) *Traffic Flow, Pedestrian & Vehicle Safety and Future ROWs*

The project complies with Section 9.250(b)(3) as it does not interfere with traffic flow or patterns and the proposed design incorporates a 70-foot Emergency Vehicle Turnaround within the public Right-of-Way (ROW) and easement on the private property. The design also protects the public ROW for future build-out should North Damon Street ever be connected to a ROW to the north or east.

9.250(b)(4) *Proposed Signs and Lighting*

No new signs or lighting are proposed as part of this development; therefore, the project complies with Section 9.250(b)(4).

9.250(b)(5) *Proposed Utility Connections*

The project complies with Section 9.250(b)(5) as the proposed development's design connects the new single-family home's sanitary sewer to the public sanitary sewer located in the North Damon Street Right-of-Way (ROW). The design also includes a public water line extension as well as a public electrical line extension and new transformer and pad. The design detains and treats all stormwater onsite before discharging to the drainage that transects the site and will not connect to the public system. The public ROW stormwater will be treated and detained within the ROW before discharging to the drainage to the west.

9.250(b)(6) *Existing and Proposed Drainageways*

The project complies with Section 9.250(b)(6) as the proposed design improves the existing drainageway by moving it from the unpermitted stormwater channel along the western edge of the public Right-of-Way to the original historic drainageway. The new drainageway design will allow for a better flow pattern, reduced erosion, has a higher capacity and is designed such to reduce flooding of the site and adjacent properties. The driveway culvert design is for fish passage and will allow for any fish migration upstream.

9.250(b)(7) *Impacts, Hazards and Nuisance*

The project complies with Section 9.250(b)(7) as the proposed development will not cause any negative impacts, or create hazards or nuisances. The project complies with all regulatory agencies with jurisdiction including: Oregon Department of State Lands, Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, US Army Corps of Engineers, National Oceanic and Atmospheric Administration's National Marine Fisheries Service and the City of Lowell.

Article 9.8 ***Public Improvements***

9.801–9.851 *Public Improvement Requirements*

The applicant is aware of the need for public improvements with the extension of the public water line and electrical. These will come with a public improvement project with the City after Tentative Site Plan Review.

December 14, 2020

TENTATIVE SITE PLAN REVIEW
TRISTAN FERGUSON IMPROVEMENTS, TAX MAP 19-01-14-22, TAX LOT 2301 AND N. DAMON ST. RIGHT-OF-WAY

CITY COMMENT RESPONSE
Branch Engineering Inc. Project No. 19-264

This response is towards the City Engineer's comments made for the Tentative Site Plan Review application dated November 6th, 2020.

The Site Plan Review comments and how they were addressed (blue text) follow below.

1. Per Lowell Development Code 9.517 (streets) and 9.521 (water), public improvements should be extended the full frontage of the property. I understand the rationale for not extending this infrastructure, but it will need Council Approval as it is a deviation from Code. Applicant states that a Letter of Non-Remonstrance will be provided, but generally that does not obligate money for the future project. It would have to be a Letter of Non-Remonstrance to a future assessment. A letter of Non-Remonstrance to a future assessment is called out in plans and in written statement.

2. Similar, the Development Code does not allow for gravel streets or driveways. Will require City approval. Will address with the planning commission hearing.

3. On the Improvement Plans:
   a. Sewer:
      i. Is private sewer lateral above or below 40" HDPE culverts. Just above
      ii. Provide grades of sewer lateral. Grades added to plans.
      iii. Minimum slope of sewer lateral is 2% unless otherwise approved. Slope is 2% minimum.
      iv. Sewer lateral connection to existing sewer should be per City of Lowell Standard Detail 311 or 312 (depending on depth). Callout to detail was added to plans.
      v. Sewer lateral will be required to have cleanout at property line. Cleanout and note added to plans.

b. Water
   i. Water service lateral & connection to main shall be per City of Lowell Standard Detail 407. Callout to detail was added to plans.
   ii. Draw existing system correctly. Per current drawing, it appears the main line is being connected to a fire hydrant. The connection to existing main was moved to where it is thought to be within Damon St. ROW.
   iii. Adjust water main to be ~10' west of ROW centerline (within street section). Identify material and standard trench details, including backfill. Add reference to City Standard Detail 401 for thrust blocking. The connection to existing main was moved to where it is thought to be within Damon St. ROW. Callout to detail was added to plans.
   iv. Install blow-off per City of Lowell Standard Detail 404 at north end of watermain. Callout to detail was added to plans.
   v. Add note: "All materials which are in contact with potable water shall be NSF approved". Note was added to utility plan.
   vi. Provide clarification that water meter box is traffic rated and bedded to hold up to potential heavy traffic (fire truck) driving across it. Conversely, relocate water meter outside of roadway area. Water meter box was moved outside of drive area.

c. Street:
   i. Provide detail of proposed road section, including width and depth of materials. Section detail was added to C5.0.
   ii. Confirm turn-around geometry is approvable by Fire Department. Geometry was confirmed with Lon.

Drainage:
   i. Provide outlet for filter strip north of driveway. Weir outlet was added to swale.
   ii. Provide references to details of drainage features. References added for all features.
   iii. Provide inlet and outlet elevations for HDPE driveway crossing. Inverts added to utility plan.

e. Grading
   i. Show existing contours. Existing contours added to grading plan.
   ii. Show roadway and constructed drainage improvement grades and slopes. Grades and slopes added to plans.

4. Drainage Study

a. Section 10 of the Drainage Study identifies the 25-yr full build-out runoff rate to be 231 cfs, which is generally in agreement with the Lowell Stormwater Master Plan. However, calculations for both the pipe crossing and open channel capacities in Appendix C (pages 5 & 6) seem to use a flow rate of 117 cfs. There was confusion to which event was passing what

runoff rate. The 25-year buildout runoff of 231 cfs passes through both channel and culverts without flooding and City Engineer already confirmed such.

SEND TAX STATEMENTS TO:

Tristan Ferguson
P.O. Box 244
Dexter OR 97431

Lane County Clerk
Lane County Deeds and Records 2018-052684

$102.00

01754046201800526840040046

11/13/2018 01:42:20 PM

RPR-DEED Cnt=1 Stn=15 CASHIER 04
$20.00 $11.00 $61.00 $10.00

Quitclaim Deed

RECORDING REQUESTED BY _____
AND WHEN RECORDED MAIL TO:
Tristan Ferguson, Grantee(s)
P.O. Box 244
Dexter OR 97431
Consideration: $"No Consideration"
Property Transfer Tax: $_____
Assessor's Parcel No.: 19-01-14-22-02301
PREPARED BY: Desiree Ferguson certifies herein that he or she has prepared this Deed.

Desiree Ferguson
Signature of Preparer

10-31-2018
Date of Preparation

Desiree Ferguson
Printed Name of Preparer

THIS QUITCLAIM DEED, executed on October 31, 2018 in the County of Lane, State of Oregon
by Grantor(s), Myshkin Ferguson,
whose post office address is 39079 Dexter Rd Dexter OR 97431
to Grantee(s), Tristan Ferguson,
whose post office address is P.O Box 244 Dexter OR 97431

WITNESSETH, that the said Grantor(s), Myshkin Ferguson,
for good consideration and for the sum of Zero dollars and zero cents
($0.00) paid by the said Grantee(s), the receipt whereof is hereby acknowledged,
does hereby remise, release and quitclaim unto the said Grantee(s) forever, all the right, title

FLOOR PLAN NOTES:

1. ALL DIMENSIONS SHOWN ARE MEASURED TO THE FACE OF FRAMING OR TO THE CENTER OF THE ROUGH OPENING.
2. ROUGH OPENING DIMENSIONS SHALL BE COORDINATED WITH THE ACTUAL FURNISHINGS IN WHICH THEY HOUSE.
3. OPENING HEADER HEIGHT SHALL BE 6'-8" U.N.O.
4. ORIENTATION AND LOCATION OF ALL FIXTURES SHALL MEET THOSE REQUIREMENTS PUT FORTH IN THE ORSC.

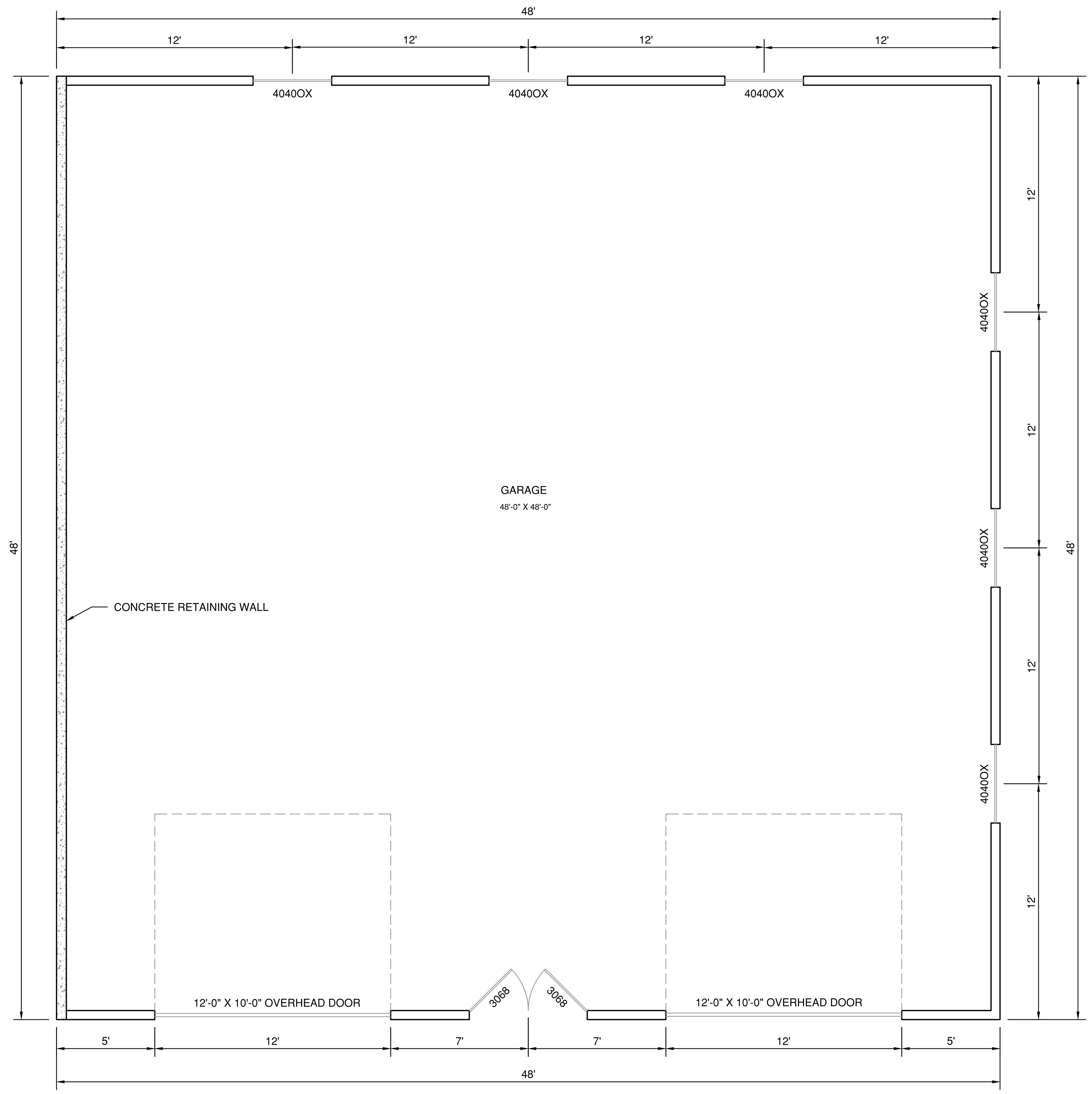
FLOOR PLAN LEGEND:

INDICATES COVERED PORCH

INDICATES UNCOVERED PORCH

FLOOR AREA SUMMARY

TOTAL ENCLOSED LIVING AREA:	1440 SQ. FT.
TOTAL COVERED DECK:	0 SQ. FT.
TOTAL UNCOVERED DECK:	0 SQ. FT.
TOTAL GARAGE:	2304 SQ. FT.



DATE: 10/19/2020
SCALE: NOTED
DRAWN: L VOIGT
CHECKED: L VOIGT
SHEET
A1.0
OF 11 SHEETS

CONSTRUCTION NOTES:
(1)
(2)
(3)
(4)
(5)

FLOOR PLAN

FERGUSON RESIDENCE
LOWELL, OREGON

STRUX ENGINEERING LLC
PO BOX 324
209 N MCHALEY
PRAIRIE CITY, OR 97869
ENGINEER@STRUXENGINEERING.COM

FLOOR PLAN NOTES:

1. ALL DIMENSIONS SHOWN ARE MEASURED TO THE FACE OF FRAMING OR TO THE CENTER OF THE ROUGH OPENING.
2. ROUGH OPENING DIMENSIONS SHALL BE COORDINATED WITH THE ACTUAL FURNISHINGS IN WHICH THEY HOUSE.
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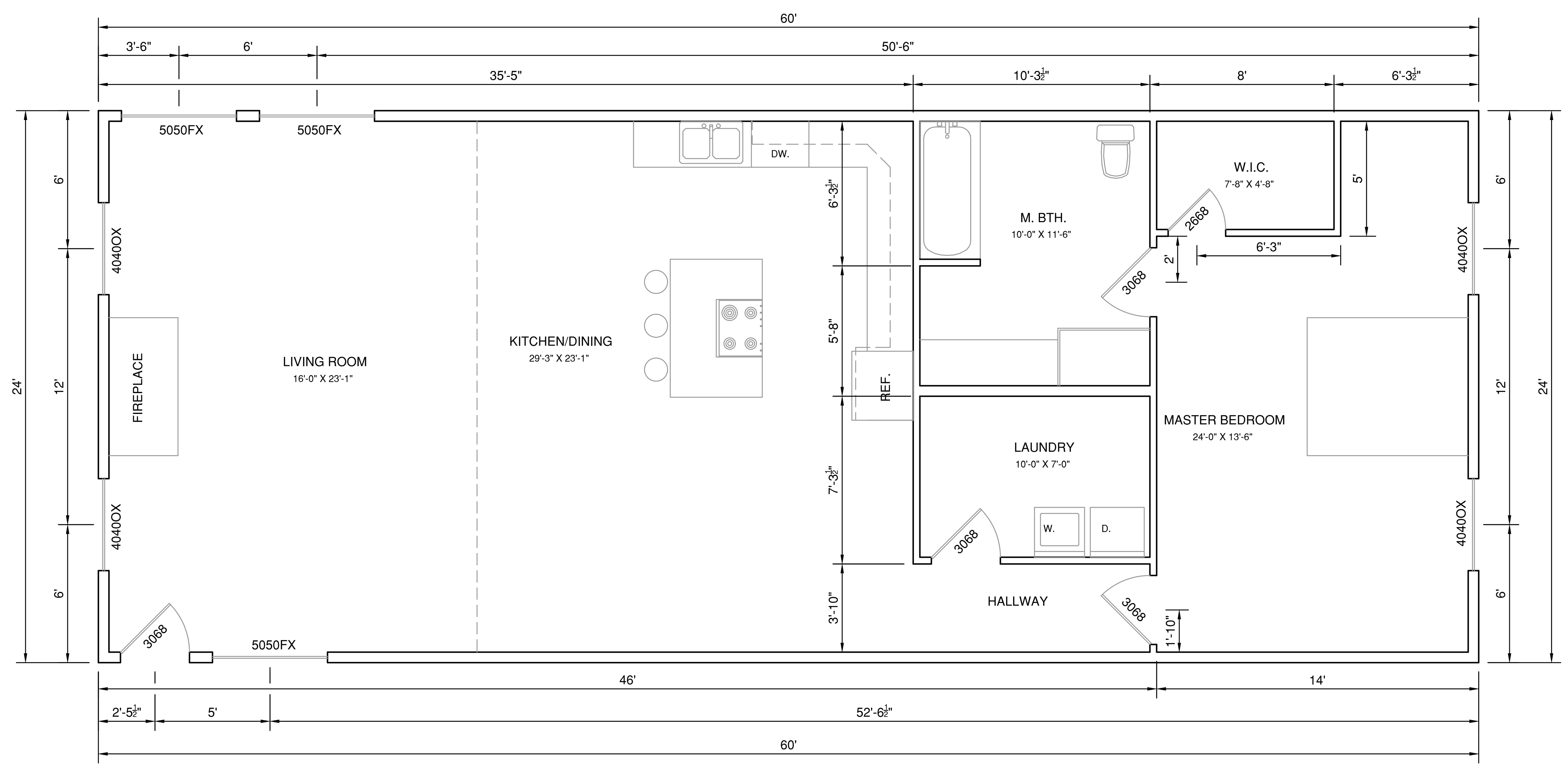


DATE: 10/19/2020
SCALE: NOTED
DRAWN: L. VOIGT
CHECKED: L. VOIGT
SHEET A1.1
OF 11 SHEETS

CONSTRUCTION NOTES:
1)
2)
3)
4)
5)

CROSS SECTIONS & WINDOW DETAILS

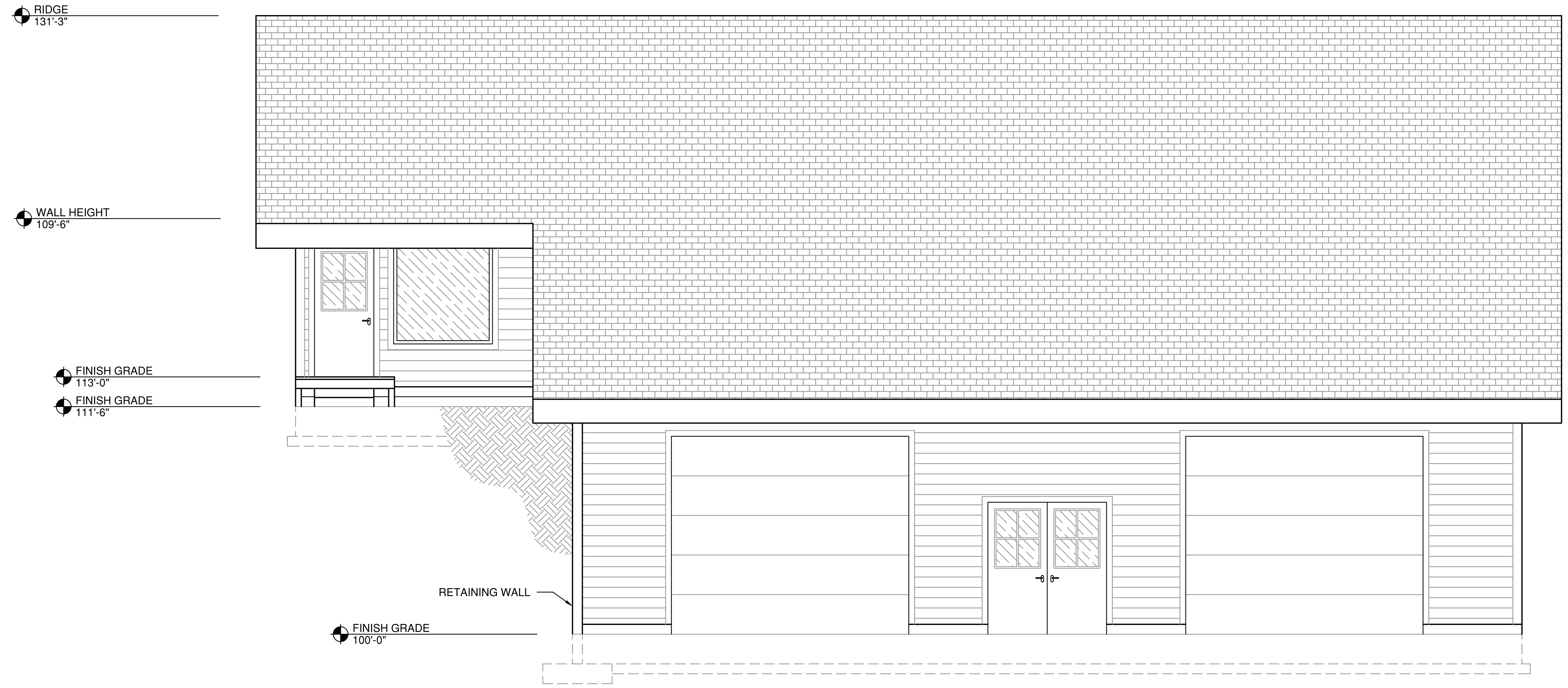
FERGUSON RESIDENCE

LOWELL, OREGON

STRUX ENGINEERING LLC
PO BOX 324
209 N MCHALEY
PRAIRIE CITY, OR 97869
ENGINEER@STRUXENGINEERING.COM

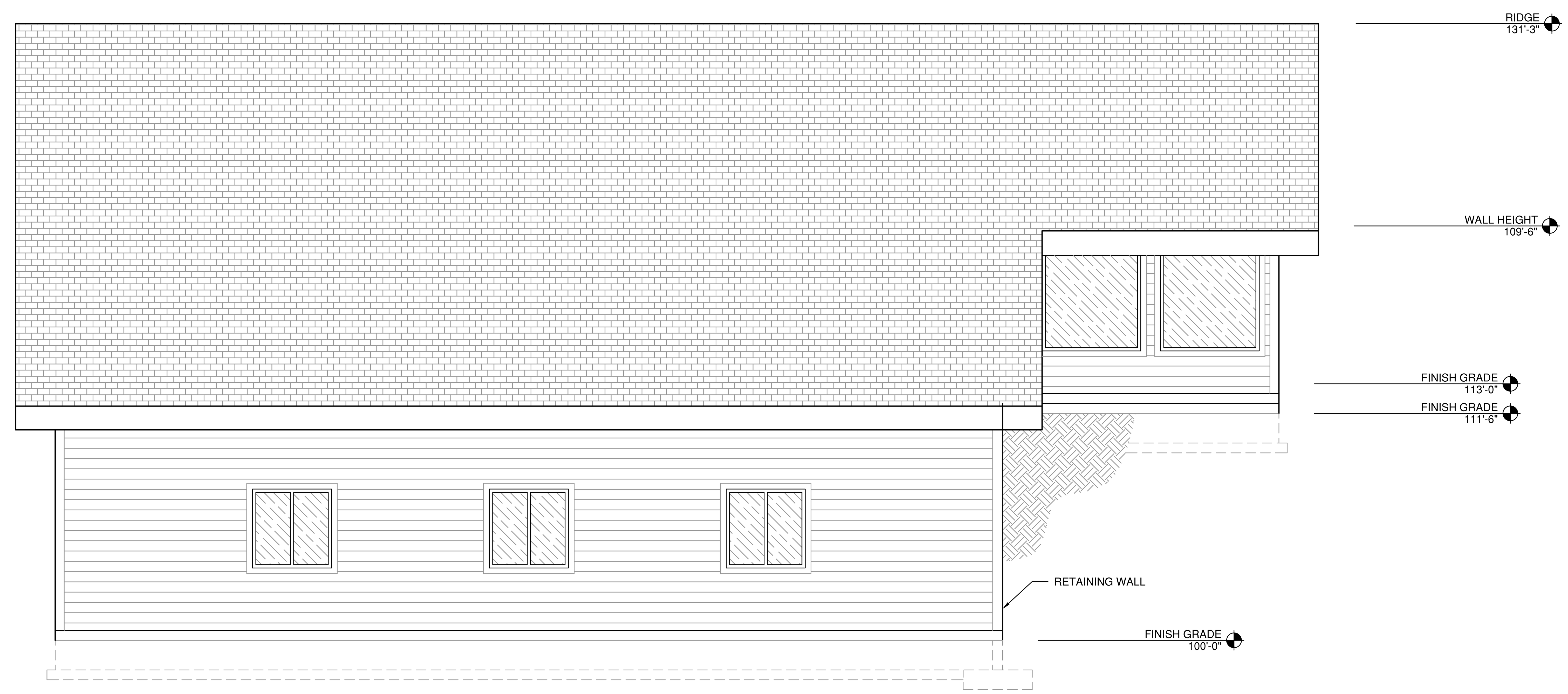
1 SOUTH ELEVATION

SCALE: 1/4"=1'-0"



B NORTH ELEVATION

SCALE: 1/4"=1'-0"



DATE: 10/19/2020
SCALE: NOTED
DRAWN: L VOIGT
CHECKED: L VOIGT
SHEET A3.0 OF 11 SHEETS

CONSTRUCTION NOTES:
(1)
(2)
(3)
(4)
(5)

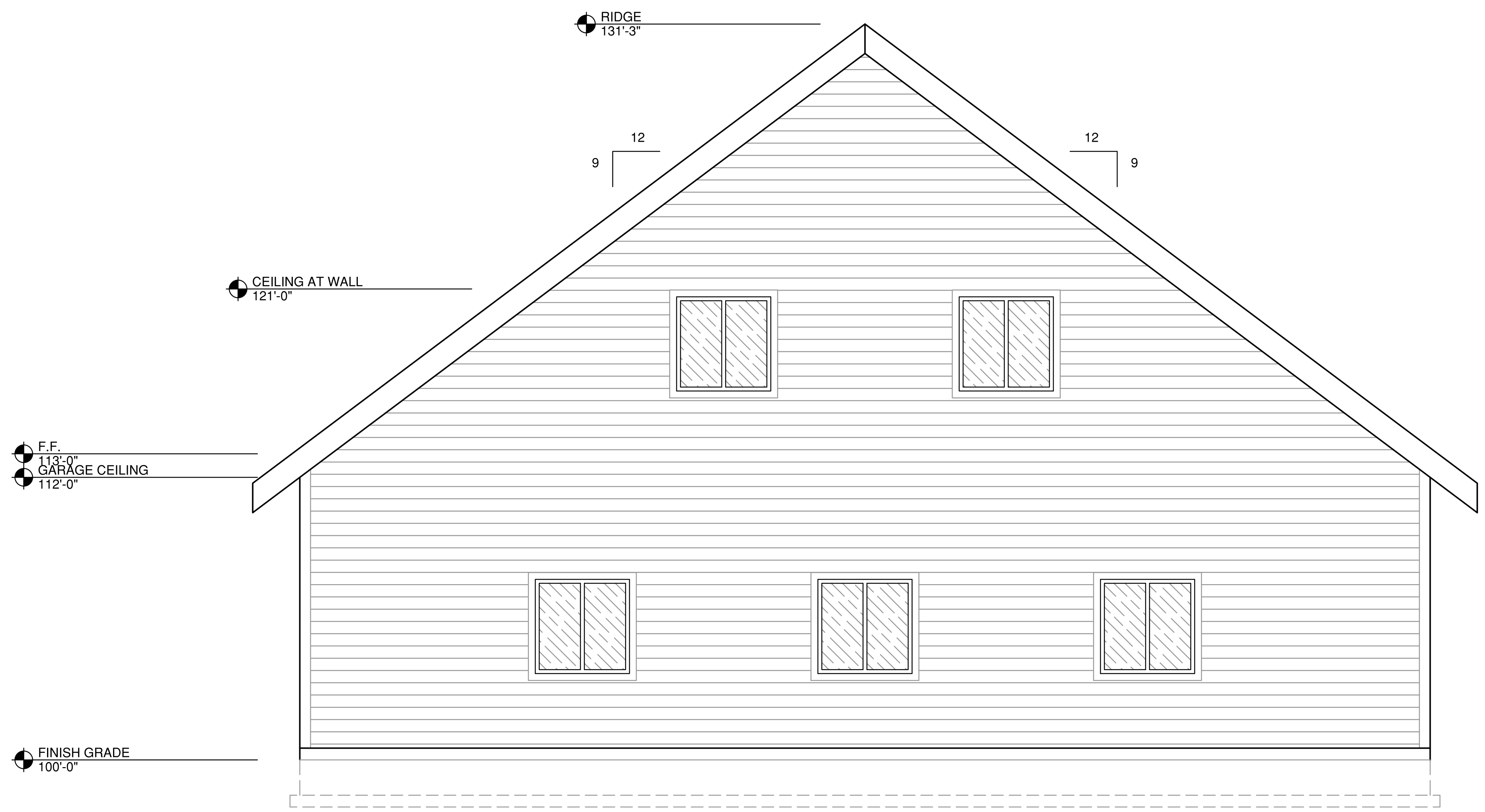
ELEVATION VIEWS

FERGUSON RESIDENCE
LOWELL, OREGON

STRUX ENGINEERING LLC
PO Box 324
209 N McHaley
Prairie City, OR 97869
ENGINEER@STRUXENGINEERING.COM

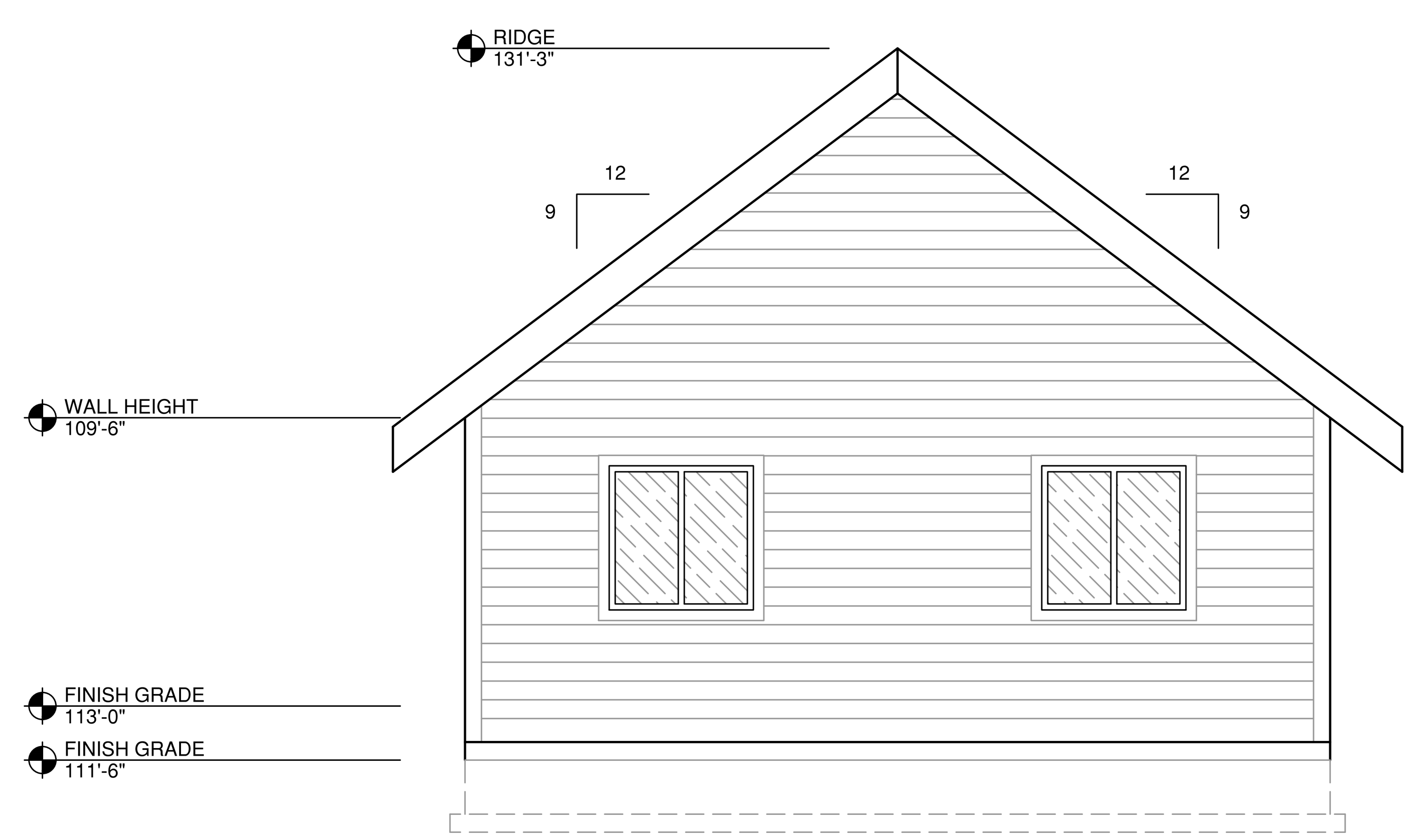
1 EAST ELEVATION

SCALE: 1/4"=1'-0"



B WEST ELEVATION

SCALE: 1/4"=1'-0"



FOR DESIGN REVIEW ONLY

DATE: 10/19/2020
SCALE: NOTED
DRAWN: L VOIGT
CHECKED: L VOIGT
SHEET A3.1 OF 11 SHEETS

CONSTRUCTION NOTES:
(1)
(2)
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ELEVATION VIEWS

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STRUX ENGINEERING LLC
PO BOX 324
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October 22, 2020

TENTATIVE SITE PLAN REVIEW
TRISTAN FERGUSON IMPROVEMENTS, TAX MAP 19-01-14-22, TAX LOT 2301 AND N. DAMON ST. Right-of-w
WRITTEN STATEMENT
Branch Engineering Inc. Project No. 19-264

This site plan review application is for the property west of North Damon Street in Lowell, Oregon, Tax Map 19-01-14-22, Tax Lots 2301 and North Damon Street right-of-way. Tax Lot 2301 is currently vacant with no improvements. The proposed improvements to the private undeveloped parcel include a single building, concrete parking pad, gravel driveway with fish passage culverts and associated utilities. The public improvements within the public North Damon Street right-of-way are a gravel street extension, electrical extension with transformer and concrete pad and public water line extension.

The applicable approval criteria are addressed below.

Section 9.250 Site Plan Review

(a) Site Plan Review Application

Section 9.203 Application Procedure

9.203(a)-(n) *Application Procedure*

The applicant understands the application procedure, has submitted all applicable items with this submittal and has paid the applicable fees.

Section 9.204 Application Site Plan

9.204(a)-(v) *Application Site Plan Set*

The project complies with Section 9.204(a) thru Section 9.204(v) as all applicable components have been submitted by the applicant with the Site Plan Review package and can be seen on plans C0.0, C1.0, C2.0, C3.0 and C4.0.

(b) Design Criteria

9.250(b)(1) *Zoning District Standards*

The project complies with Section 9.411 zoning district standards for a single-family residential district (R-1) development. The development is for one single-family residence on a legal lot. The development meets the minimum lot size of 7,000 sq. ft. as it is a total of 59,710 sq. ft. It also meets the minimum lot width of 60 feet as it is 251.62 feet wide at the narrowest point. Additionally, the development meets the minimum lot depth of 80 feet as it is 206.87 feet deep at the shallowest point. The building coverage is much less than the maximum 35% at approximately 4% coverage. The highest roof peak will be designed to be under the maximum 30 feet in height from the average adjacent ground elevation. As illustrated in the plan set, the project meets all yard setback requirements with a minimum of 20 feet front yard, 7.5 feet side yard and 10 feet rear yard setbacks.

9.250(b)(2) *Applicable City Code and Ordinances (General Development Standards)*

The proposed development complies with all directly and loosely applicable General Development Standards within Section 9.501 thru Section 9.530. As stated above in Section 9.250(b)(1), the development complies with Section 9.504 Height Standards, 9.507 Lot Size, and 9.509 Yard Setbacks. The proposed development complies with Section 9.511 as the proposed structures meet the 15-foot drainageway setback requirements. The development complies with Section 9.513 and Section 9.514 with the single-bedroom loft apartment having more than two off-street parking spots for the unit, the locations of which are shown on the drawings and comply with all applicable criteria under Section 9.513(a)-(j). The development complies with Section 9.516 as the lot abuts a street for greater than the minimum 16 feet. However, as the street will not be paved as part of this development, it is illogical to pave the driveway at this time. The applicant can pave if and when the street is improved and paved.

As allowed under Section 9.517(a), the applicant is asking the City to defer the public street improvements conditional on the applicant signing an Irrevocable Waiver of Remonstrance since there is not an existing sidewalk or storm drain system to which to connect. The Irrevocable Waiver of Remonstrance will be providing for half-street improvements which include, but is not limited to, sidewalk, curb and gutter, storm drainage, street lights and signage. As stated above, the applicant will be providing an Irrevocable Waiver of Remonstrance to comply to Section 9.518.

The development meets Section 9.520 as the development and stormwater has been designed to both treat the 25-year storm event for the project as

well as pass the 25-year storm event for full build-out for the upstream portions of the City, per the Storm Drainage Master Plan. The development conforms to Section 9.521 as a public water line extension is designed and will be installed with the proposed development. The development design complies to Section 9.522 with the sanitary sewer line connecting to the existing sanitary sewer within the North Damon Street Right-of-Way. The proposed development complies to Section 9.523 as the proposed design includes all utilities located underground with the extension of electrical with an above ground transformer and pad located at the property line near the electrical stub to the proposed building. The proposed development conforms to Section 9.524 as the design applies a PUE for the public water and electric extension as well as an Emergency Vehicle Turnaround easement for the proposed fire hammerhead turnaround. The proposed site development complies to all grading requirements of 9.527. All yard setbacks that are impacted will be landscaped per Section 9.528 with native vegetation while the undeveloped portions will not be landscaped as they meet the exceptions stated within this Section.

9.250(b)(2) *Applicable City Code and Ordinances (Special Development Standards)*

The project complies with Section 9.601 thru 9.636. The development complies with all Wetlands Development Standards specified within Section 9.610 and has received permits from Oregon Department of State Lands and US Army Corps of Engineers for removal-fill of waters of the State and US, Oregon DEQ for 401 Water Quality Certification and NOAA National Marine Fisheries Services for SLOPES V under the Endangered Species Act. The project is in Zone X, Area of Minimal Flooding and is not considered hillside development. Thus, Sections 9.620 and 9.630 are not applicable.

9.250(b)(3) *Traffic Flow, Pedestrian & Vehicle Safety and Future ROWs*

The project complies with Section 9.250(b)(3) as it does not interfere with traffic flow or patterns and the proposed design incorporates a 70-foot Emergency Vehicle Turnaround within the public Right-of-Way (ROW) and easement on the private property. The design also protects the public ROW for future build-out should North Damon Street ever be connected to a ROW to the north or east.

9.250(b)(4) *Proposed Signs and Lighting*

No new signs or lighting are proposed as part of this development; therefore, the project complies with Section 9.250(b)(4).

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The project complies with Section 9.250(b)(5) as the proposed development's design connects the new single-family home's sanitary sewer to the public sanitary sewer located in the North Damon Street Right-of-Way (ROW). The design also includes a public water line extension as well as a public electrical line extension and new transformer and pad. The design detains and treats all stormwater onsite before discharging to the drainage that transects the site and will not connect to the public system. The public ROW stormwater will be treated and detained within the ROW before discharging to the drainage to the west.

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The project complies with Section 9.250(b)(6) as the proposed design improves the existing drainageway by moving it from the unpermitted stormwater channel along the western edge of the public Right-of-Way to the original historic drainageway. The new drainageway design will allow for a better flow pattern, reduced erosion, has a higher capacity and is designed such to reduce flooding of the site and adjacent properties. The driveway culvert design is for fish passage and will allow for any fish migration upstream.

9.250(b)(7) *Impacts, Hazards and Nuisance*

The project complies with Section 9.250(b)(7) as the proposed development will not cause any negative impacts, or create hazards or nuisances. The project complies with all regulatory agencies with jurisdiction including: Oregon Department of State Lands, Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, US Army Corps of Engineers, National Oceanic and Atmospheric Administration's National Marine Fisheries Service and the City of Lowell.

Article 9.8 ***Public Improvements***

9.801–9.851 *Public Improvement Requirements*

The applicant is aware of the need for public improvements with the extension of the public water line and electrical. These will come with a public improvement project with the City after Tentative Site Plan Review.

ATTACHMENT M

FINAL ORDER AND DECISION
OF THE LOWELL PLANNING COMMISSION

LU 2020 01 Tristan Ferguson Site Review

A. The Lowell Planning Commission finds the following:

1. The Lowell Planning Commission has reviewed all materials relevant to the Ferguson Site Review Application (FILE NO. LU 2020 01) that has been submitted by the applicant and staff regarding this matter for Assessors Map 19-01-14-22-02301, including the criteria, findings and conclusions within the Final Order and referenced staff report.

2. On **FEBURARY 3, 2021**, the Lowell Planning Commission reviewed LU 2020 01 after giving the required notice as per the Lowell Development Code and held a public hearing that was open to the public.

3. At the **FEBURARY 3, 2021**, public hearing, the Lowell Planning Commission made a motion to **approve the application subject to the findings, conclusions and conditions as contained and presented in the Staff Report, presented to the Planning Commission on February 3, 2021.**

4. This approval is subject to a 15-day appeal period. The appeal must be submitted within 15-days of the notice of decision being mailed out.

Signed this_____ day of **FEBURARY 2021**.

_____

Mr. Lon Dragt, Chair, Lowell Planning Commission