Engineering Department
Land Use Application
Review Comments & Conditions

Home of the Tualatin River National Wildlife Refuge

To:	Joy Chang, Senior Planner
From:	Bob Galati P.E., City Engineer
Project:	The Reserve at Cedar Creek Subdivision (SUB 19-02)
Date:	March 11, 2020, Amended April 19, 2020

Engineering staff has reviewed the information provided for the above referenced private development project. Final construction plans will need to meet the standards established by the City of Sherwood Engineering Department and Public Works Department, Clean Water Services (CWS), Washington County Department of Land Use and Transportation (WACO), Oregon Department of Transportation (ODOT), and Tualatin Valley Fire & Rescue (TVF&R), in addition to requirements established by other jurisdictional agencies providing land use comments. City of Sherwood Engineering Department comments are as follows:

General Information

The proposed subdivision consists of two separated single family residential (SFR) development areas with a total of 59 single family residential lots, 2 private street tracts serving 4 SFR lots, and separate tracts of land used for stormwater quality treatment systems and visual corridors.

1. The southern development area consists of 15 SFR lots located on a cul-de-sac (SW Robin Hood Place) which directly accesses Brookman Road.
2. The northern development area consists of 44 SFR lots located on street extensions (SW Atfalati Lane, SW Yamel Terrace, and SW Kalapuya Lane) from the adjacent subdivision development.

Transportation

The submitted plans indicate separate street designs between the northern and southern development areas.

Northern Development Area

The northern development area shows the extension of SW Atfalati Lane and SW Kalapuya Lane which are part of the adjacent Middlebrook Estates Subdivision project, and a connective street of SW Yamel Terrace. SW Atfalati Lane and SW Kalapuya Lane are shown with 28-foot paved width within a 52-foot right-of-way width, which meet City residential street standards with parking limited to one side of the street. SW Yamel Terrace is shown with a 24-foot paved width within a 40-foot (measured) right-of-way width, which meets the City's ¾ street standard. A shadow plat of the adjacent (east side) development indicates the future development will construct the remaining part of the street section and right-of-way.

Southern Development Area

The southern development area shows a residential street (SW Robin Hood Place) with a cul-de-sac intersecting with SW Brookman Road. SW Robin Hood Place is shown with a 28-foot paved width within a 52-foot right-of-way width, ending in a 48-foot cul-de-sac. The length of the cul-de-sac (identified as Street B on sheet P5.2) is shown to be 299-feet length, which exceeds City standards for cul-de-sacs.

The southern development area fronts SW Brookman Road, and will require dedication of 33-feet of right-of-way to meet WACO's standards for half of a 5-lane arterial right-of-way section width of 53-feet as measured from the existing right-of-way centerline.

Per City MC Section 16.118.020.(B), a minimum 8-foot wide public utility easement shall be provided on private property along all public street frontages.

Frontage improvements along SW Brookman Road are required per City standards. However, to meet WACO standards for a 5-lane arterial, significant grading of the existing road section would need to take place. The cost of reconstructing SW Brookman Road to meet WACO design standards would be very expensive and not proportional to the impacts of a 59 lot subdivision. WACO has performed a review of the proposed sight distance based on existing SW Brookman Road vertical alignment conditions, and has concluded that the proposed location and elevation of SW Robin Hood Place would meet WACO sight distance requirements. Given the significant grade differences required to meet WACO design standards, many frontage improvements along SW Brookman Road are being deferred until such time that SW Brookman Road is improved as a WACO capital improvement project. The deferred frontage improvement items include 1) curb and gutter, 2) sidewalks/multi-use path, 2) planter strip plantings, 3) street trees, 4) street lighting systems, 5) irrigation systems, 6) required street signage, 7) storm drainage collection and conveyance system, and 8) undergrounding of any overhead private utilities.

Given the improvement deferment, a fee in-lieu-of construction for the required frontage improvements will be required. The in-lieu fee amount will be based on the estimated cost of the deferred items with a 125% multiplying factor to account for difference in the value of the improvements over time, as approved by the City Engineer.

The length of the proposed SW Robin Hood Street cul-de-sac exceeds the 200-foot maximum length standards specified in MC Section 16.106.040.(E). The applicant has requested a modification to the standards under MC Section 16.106.020.E.(1 thru 4). The applicant has not provided rationale as to why a grant of modification is needed.

However, the City Engineer is open to granting an engineering design modification request to the cul-de-sac length, based design recommendations found in the publication *Residential Streets (3rd Edition)* published by the Urban Land Institute (ULI). ULI design recommendation is on a trip count maximum of 200 trips per day for the cul-de-sac, with 8 to 10 trips per dwelling unit. This equates to a maximum lot count of 20 to 25 lots. The lot count for the southern development area is listed at 15 lots and a cul-de-sac length of 260 feet. The analysis indicates that the maximum trip count would be 150 daily trips, well within the recommended trip limit.

A TIA has been submitted and results identified 4 intersection impacts where proportionate share cost fee in-lieu-of construction amounts are recommended. The 4 listed intersections are:

1) SW Sunset Boulevard/SW Woodhaven Drive - $19,849 for proportionate share cost of signalized intersection improvements.
2) SW Sunset Boulevard/SW Timbrel Lane - $14,858 for proportionate share cost of traffic mini-roundabout improvements.
3) SW Ladd Hill Road-SW Main Street/SW Sunset Boulevard - $17,025 for proportionate share cost of signalized intersection improvements.

4) SW Baker Road/SW Murdock Road/SW Sunset Boulevard - $55,215 for proportionate share cost of addition of future intersection turn lanes improvements.

Given the current transportation planning efforts for SW Brookman Road, ODOT, WACO and the City feel that conditioning full improvement to the intersection of SW Brookman Road and Hwy 99W would not be in the best interest of ODOT, WACO and City or the applicant. If build-out intersection improvements were required to the SW Brookman Road/Hwy 99W intersection, it is viewed that a fully signalized intersection would possibly be required by ODOT. The cost of this level of improvement would probably not be proportional to the impacts that the development would create.

The applicant's TIA indicates that the SW Brookman Road/Hwy 99W intersection currently fails to meet capacity and mobility requirements. The TIA notes that the additional trips generated by the proposed development does not significantly increase the deficit capacity issue. The TIA did not identify any corrective action other than to say the future ODOT/WACO improvements to the intersection would alleviate the issue. However, the TIA performed for the adjacent Middlebrook Subdivision did identify a temporary mitigation measure of a right-turn lane would be appropriate to mitigate development impacts.

As part of the Middlebrook Subdivision land use process, ODOT conditioned that the intersection of SW Brookman Road and Hwy 99W be converted into a right-in/right-out configuration, with a proportionate share fee in-lieu-of construction for a right turn lane being paid to the City in a set aside fund strictly dedicated to a future signalized intersection improvement. For comparison, the Middlebrook Subdivision was require to pay a fee in-lieu amount of $109,430. The Middlebrook Subdivision is comprised of 145 single family lots, which means that a per lot fee in-lieu amount of $754.69. Applying this per lot amount to the Reserve at Cedar Creek's 59 lots results in a proportionate share fee in-lieu amount of $44,526.69.

Since the time of the Middlebrook Subdivision land use approval process, ODOT Region 2 modified the SW Brookman Road & Hwy 99W intersection requirements from right-in/right-out, to right-in/right-out with southbound left-in and east bound through movements. In a letter from ODOT Region 1 dated January 30th, 2020, six items of concern have been described with a conclusion that the TIA be revised to take into account the change in access requirements, and to assign mitigation requirements and proportional fee in-lieu-of construction payments accordingly. The January 30th ODOT letter is attached to these review comments for reference (Exhibit A).

Condition: WACO Transportation Development Tax (TDT) credit eligible offsets will be based on requirements and limitations established by WACO Ordinance Mo. 691A, as modified by Ordinances 729, 741, 746-A, 751 and 793-A, and as described in WACO's *Countywide Transportation Development Tax Procedures Manual*, dated July 2019. City Transportation SDC credit eligible off-sets will be based on requirements and limitations established by City of Sherwood Municipal Code Chapter 15.16 – System Development Charges and Chapter 15.20 – Park and Recreation System Development Charges on New Development.

Condition: Prior to Final Approval of Plat, applicant shall show a 33-foot wide right-of-way dedication to WACO along the SW Brookman Road frontage.

Condition: Prior to Final Approval of Plat, show clear vision easements on all corner lots fronting public streets. The clear vision easement shall be to the City of Sherwood and conform with MC Section 16.58.010.

Condition: Prior to Final Approval of Plat, applicant shall show a minimum 8-foot wide public utility easement (PUE) on private property along all public street frontages.

Condition: Prior to Final Approval of Plat, all proposed private streets shall comply with all the standards stated in the City MC Section 16.118.050 (Private Streets).

Condition: Prior to Final Approval of Engineering Plans, applicant shall submit a separate design variation request for each non-conforming public infrastructure design element, to the City Engineer for review and approval.

Condition: Prior to Final Approval of Engineering Plans, applicant shall pay fee in-lieu-of construction amounts as follows:

a. SW Sunset Boulevard/SW Woodhaven Drive - $19,849 for proportionate share cost of signalized intersection improvements. Funds to be deposited into City funds account and dedicated strictly for a future SW Woodhaven Drive & SW Sunset Boulevard signalized intersection improvements project. This fee in-lieu-of construction payment shall be treated as 100% credit eligible towards Washington County (WACO) TDT and/or City Transportation SDC fee assessments on the developments single family residential units.

b. SW Sunset Boulevard/SW Timbrel Lane - $14,858 for proportionate share cost of traffic mini-roundabout improvements. Funds to be deposited into City funds account and dedicated strictly for a suture SW Timbrel Lane & SW Sunset Boulevard traffic roundabout improvements project. This fee in-lieu-of construction payment shall be treated as 100% credit eligible towards WACO TDT and/or 54% credit eligible towards City Transportation SDC fee assessments on the developments single family residential units.

c. SW Ladd Hill Road-SW Main Street/SW Sunset Boulevard - $17,025 for proportionate share cost of signalized intersection improvements. Funds to be deposited into City funds account and dedicated strictly for a future SW Ladd Hill Road-SW Main Street & SW Sunset Boulevard signalized intersection improvements project. This fee in-lieu-of construction payment shall be treated as 100% credit eligible towards WACO TDT and/or City Transportation SDC fee assessments on the developments single family residential units.

d. SW Baker Road/SW Murdock Road/SW Sunset Boulevard - $55,215 for proportionate share cost of addition of future intersection turn lanes improvements. Funds to be deposited into City funds account and dedicated strictly for a future SW Baker Road-SW Murdock Road/SW Sunset Boulevard signalized intersection improvements project. This fee in-lieu-of construction payment shall be treated as 75% credit eligible towards WACO TDT and/or 100% credit eligible towards City Transportation SDC fee assessments on the developments single family residential units.

e. SW Brookman Road/Hwy 99W - $44,526.69 for proportionate share cost of addition of signalized intersection improvements. Funds to be deposited into City funds account and dedicated strictly for a future SW Brookman Road & Hwy 99W signalized intersection improvements project. This fee in-lieu-of construction payment shall be treated as 100% credit eligible towards Washington County (WACO) TDT fee assessments on the developments single family residential units.

Condition: Prior to Final Approval of Engineering Plans, the applicant shall pay a fee in-lieu-of construction for deferred frontage improvements along SW Brookman Road. The fee in-lieu-of construction amount will be set at 125% of the estimated deferred frontage improvements construction cost, as approved by the City Engineer. The deferred frontage improvements are identified as being;

1) Asphalt Pavement section conforming to the City Engineering Design and Standard Details Manual, Section 210.2.2 for asphalt thickness requirements for arterial road sections.
2) Standard Base Rock section conforming to the City Engineering Design and Standard Details Manual, Section 210.2.1 for leveling course rock and base rock thickness requirements for arterial roads.
3) Concrete curb and cutter
4) Concrete sidewalk/multi-use path
5) Street planter strip plantings
6) Street lighting system (including lights, foundations and conduits)
7) Street trees
8) Street signage and striping conforming to the City Engineering Design and Standard Details Manual, Section 340.
9) Irrigation system (including piping, valves, controllers, sprinkler heads)
10) Stormwater drainage collection, conveyance, and treatment systems for public roadway.
11) Undergrounding of existing overhead utilities.

Funds are to be deposited into WACO TDT funds account and dedicated strictly to a future WACO SW Brookman Road capital improvement project.

Condition: Prior to Final Approval of Engineering Plans, the street lighting design shall include a photometric analysis report for review and approval by City Engineering. City lighting standards require Westbrooke fixtures on all internal streets to the subdivision, and Cobrahead fixtures along the SW Brookman Road right-of-way.

Condition: Prior to Final Approval of Engineering Plans, the applicant shall obtain any necessary Right-of-Way Permits from WACO for constructing public improvements within the SW Brookman Road right-of-way.

Condition: Prior to Final Acceptance of Constructed Public Improvements, connection of the northern development area to the public transportation improvements being constructed by the adjacent Middlebrook Subdivision, will not be permitted until such time as the public transportation improvements being constructed by the Middlebrook Subdivision have been constructed, have received final inspection approval, and have been accepted as public infrastructure by the City. Until that time, a minimum 10-foot physical separation between the Reserve at Cedar Creek site development public transportation infrastructure improvements and the adjacent Middlebrook Subdivision public transportation infrastructure improvements shall be maintained.

Condition: Prior to Final Grant of Occupancy, all TDT and SDC credit requests on credit eligible public improvements must be submitted in accordance with WACO Ordinance Mo. 691A, as modified by Ordinances 729, 741, 746-A, 751 and 793-A, and City of Sherwood Municipal Code Chapter 15.16 – System Development Charges and Chapter 15.20 – Park and Recreation System Development Charges on New Development, and conform and comply with the standards and requirements stated therein.

Condition: Prior to Final Approval of Engineering Plans, SW Yamel Terrace shall be designed to include a curbline along the east side of the ¾ street paved width per City standards.

Condition: Prior to Final Acceptance of Constructed Public Improvements, all private streets shall comply with all the standards stated in the City MC Section 16.118.050 (Private Streets).

City Engineer's Comment: Discussion with City Transportation Engineering (DKS Associates) requesting feedback on any potential safety concerns for SW Brookman Road. Two potential safety concerns were identified are; 1) narrow roadway width, and 2) edge drop-off conditions. SW Brookman Road generally has a narrow paved width section (18 to 20 feet), much narrower than what is typically found on City residential streets. The drop–off edge condition is most concerning in that driver reaction to right side tires falling off the road, result in overcorrection, then driving off the left side of the road. The narrow road pavement section width does not allow for much maneuvering room. This is a physical condition of the road that the City identifies as a potential safety issue, and that the City does not have the funds to correct for in the near future, and that the City cannot condition the developer to correct for as the cost of the needed improvements are not proportional to the impacts generated by the development. It is recommended that at a minimum, pavement edgelines/foglines be re-established along the project frontage along SW Brookman Road prior to Grant of Occupancy.

Sanitary Sewer

The submitted plans show connection of public sanitary sewer service mains to a public sanitary sewer trunk line. Authority for approval of the trunk line design lies with CWS, as part of the larger regional Brookman Sanitary Sewer Trunk Extension Project. This smaller portion of the regional trunk line is being constructed as part of the Middlebrook Estates Subdivision, ending at a point which provides access to the proposed Reserve at Cedar Creek subdivision project.

To allow for further extension of the Brookman Sanitary Sewer Trunk Extension Project the applicant will be conditioned to dedicate a 20-foot wide public sanitary sewer easement across the entirety of the applicants property in alignment with the proposed Brookman Sanitary Sewer Trunk Extension Project as defined by CWS.

Condition: Prior to Final Acceptance of Constructed Public Improvements, connection to that portion of the Brookman Sanitary Sewer Trunk Extension Project being constructed by the adjacent Middlebrook Subdivision, will not be permitted until such time as that portion of the sanitary trunk line have been constructed, have received final inspection approval, and have been accepted as public infrastructure by the City. Until that time, a minimum 10-foot physical separation between the Reserve at Cedar Creek site development public sanitary infrastructure improvements and the adjacent Middlebrook Subdivision public sanitary infrastructure improvements shall be maintained.

Condition: Prior to Final Acceptance of Constructed Public Improvements, all private sanitary laterals shall be installed in compliance with the current Oregon Plumbing Specialty Code.

Condition: Prior to Final Acceptance of Constructed Public Improvements, any public sanitary sewer to be located on private property shall have a recorded public sanitary sewer easement encompassing the related public sanitary sewer improvement meeting Sherwood Engineering standards.

Condition: Prior to Final Acceptance of Constructed Public Improvements, a 20-foot wide public sanitary sewer easement across the entirety of the applicants property in alignment with the proposed Brookman Sanitary Sewer Trunk Line Extension project as specified by CWS, shall be dedicated to the City.

Storm Sewer

The proposed development submittal included an Amended Service Provider Letter issued by CWS (File No.19-001036).

A preliminary stormwater drainage report prepared by PDG, dated April 15th, 2019 has been submitted. Within the preliminary drainage report the following important items are noted:

1) There is an existing flood plain on the property with a 100-year flood plain elevation of 176.
2) Cedar Creek runs southwest to northeast through the center of the property (between the northern development area and the southern development area).
3) There are no identified downstream conveyance system deficiencies within 1/4 mile of the site, hence no on-site detention is required.
4) Two separate stormwater treatment swales will be provided, one for the northern development area and one for the southern development area. These treatment swales are designed to meet CWS standards.

Land Use Application was submitted to the City prior to April 22, 2019. Under CWS regulations, the application is eligible to be conditioned under CWS regulations and policies in-place prior to the changes in regulations and policies requiring hydromodification.

An environmental report prepared by ESA described an existing culvert crossing of Cedar Creek used for private access to the northern part of the existing tax lot from the southern part. No analysis of the condition of this culvert has been provided in the stormwater report, particularly for continued use as a vehicular access between development areas.

Condition: Prior to Final Plat Approval, the stormwater treatment facilities shall be shown as being located in individual tracts of land dedicated to the City of Sherwood.

Condition: Prior to Final Plat Approval, an easement over the vegetated corridors tracts of land granting access to CWS shall be recorded with the plat.

Condition: Prior to Final Engineering Plan Approval, submitted site development plans shall provide for compliance with all requirements and conditions stated in the CWS issued Amended Service Provider Letter (File No. 19-001036).

Condition: Prior to Final Engineering Plan Approval, a structural condition analysis and report shall be performed by a licensed professional engineer, to determine if the structural integrity of this culvert is sufficient for continued use as a vehicle/pedestrian infrastructure. If the culvert is found to be unfit for continued use, replacement of the culvert may be required which may include acquisition of any necessary State or Federal permits (CWS, DEQ, USACE, NMFS, etc.). Any necessary permits and associated requirements will also become part of the Final Engineering Plan Approval requirements.

Condition: Prior to Finale Engineering Plan Approval, submitted site development stormwater improvement plans shall provide for City access to stormwater outfall/outlet structures for maintenance purposes.

Condition: Prior to Finale Engineering Plan Approval, a Final Stormwater Drainage Report shall be provided to City Engineering for review and approval.

Condition: Prior to Final Engineering Plan Approval, a Stormwater Connection Permit shall be obtained from CWS.

Condition: Prior to Final Acceptance of Constructed Public Improvements, the proposed development shall provide stormwater improvements as needed to serve new street and lot improvements meeting CWS and City of Sherwood standards.

Condition: Prior to Final Acceptance of Constructed Public Improvements, any public stormwater system that is located on private property shall have a recorded public stormwater easement encompassing the related public stormwater sewer improvement meeting Sherwood Engineering standards.

Condition: Prior to Grant of Occupancy for any building, the proposed development shall provide storm sewer improvements as needed to serve new street improvements and service all parcels within the subject development meeting CWS and City standards.

Condition: Prior to Final Acceptance of Constructed Public Improvements, all private stormwater laterals shall be installed in compliance with the current Oregon Plumbing Specialty Code.

Water

The proposed development submittal indicates the extension of the public water system previously construction by the Middlebrook Subdivision. The extension through the northern development area will loop an 8-inch waterline down SW Atfalti Lane, SW Yamel Terrace and and back on SW Kalapuya Lane. The southern development area portion will extend a new 12-inch line down SW Brookman Road from the line constructed with the Middlebrook Subdivision. The 12-Inch line will extend along the SW Brookman Road right-of-way from property line to property line. Then a new 8-inch line will be constructed from the 12-inch line in SW Brookman Road north along the SW Hood Place alignment to the end of the cul-de-sac.

Condition: Prior to Final Approval of Engineering Plans, the Engineering Department shall provide review and approval of related public water improvement plans and reports. Public water system plans shall meet City standards. All public water pipe shall have joint restraints.

Condition: Prior to Final Approval of Engineering Plans, applicant shall obtain and provide letter from Sherwood Public Works Department, that existing public water system has the capacity and pressure to provide appropriate public water and fire service to the proposed development.

Condition: Prior to Final Acceptance of Constructed Public Improvements, connection to that portion of the public water system being constructed by the adjacent Middlebrook Subdivision, will not be permitted until such time as that portion of the public water system is constructed, has received final inspection approval, and is accepted as public infrastructure by the City. Until that time, a minimum 10-foot physical separation between the proposed site development public water system and the Middlebrook Subdivision public water systems, shall be maintained.

Condition: Prior to Final Acceptance of Constructed Public Improvements, the installation of the 12-inch waterline running down SW Brookman Road, shall extend the entire length of the property frontage right-of-way line.

Condition: Prior to Issuance of Occupancy of any residential lot structures, all service laterals shall be installed in compliance with the current Oregon Plumbing Specialty Code.

Grading and Erosion Control

An environmental assessment report prepared by ESA, dated August 15, 2019 has been included in the submittal, along with a Wetland Delineation Report approval letter from DSL (WD# 2019-0476).

Since the total site development disturbance area of 15.72 acres is greater than 5 acres, an NPDES 1200-C permit will be required.

The site abuts wetlands that include a FEMA defined 100-year flood plain limit. The plans identify the flood plain limits which indicates a flood plain elevation between 166 and 168. The applicant submittal indicates that each residential structure built in the subdivision shall meet FEMA requirements for the ground finished floor elevation being 1.5-feet above the 100-year flood plain elevation.

Condition: Prior to Final Approval of Engineering Plans, a Flood Plain Certificate for the site flood plain elevation shall be submitted to the City for its records.

Condition: Prior to Final Approval of Engineering Plans, a finalized NPDES 1200-C Permit issued by CWS shall be submitted to the City for its records.

Condition: Prior to Final Acceptance of Constructed Public Improvements, all conditions of the CWS Service Provider Letter (CWS File No.19-001036) shall have been constructed and received final inspection approval by the City, in conformance with the conditions and requirements of the SPL.

Condition: Prior to Grant of Occupancy, for each residential structure constructed within the subdivision and abutting the Flood Plain corridor, a completed FEMA Elevation Certificate Form shall be submitted to the City for its records.

Environmental

Oregon Department of State Lands (DSL) provided a Wetland Land Use Notice Response (WN2020-0059) that included two requirements; 1) That the proposed activity will impact wetlands and required a State Permit, and 2) a Federal permit may be required by US Army Corps of Engineers (USACE).

Condition: Prior to Final Approval of Engineering Plans the applicant shall confirm and if necessary provide DSL Permit as required by WN2020-059, and USACE permit.

Other Engineering Issues

Condition: Prior to Issuance of an Engineering Compliance Agreement, final engineering plan approval by the Engineering Department is required, performance and payment bonds and insurance riders must be submitted to the City.

Condition: Per City Municipal Code Chapter 16.118, all new utilities shall be placed underground unless covered by exceptions noted under Section 16.118.040, and as approved by the City Engineer.

Condition: Prior to Grant of Occupancy for the building, Sherwood Broadband utilities (vaults and conduit) shall be installed along the subject properties frontage per requirements set forth in City Ordinance 2005-017 and City Resolution 2005-074.

Condition: Prior to Final Acceptance of Public Improvements, all vegetated corridors shall be dedicated to the City in recorded tracts of land.

END OF ENGINEERING CONDITIONS OF APPROVAL

Exhibit C

WASHINGTON COUNTY
OREGON

March 9, 2020

To: **Joy Chang – Senior Planner**

From: **Naomi Vogel – Associate Planner**

RE: **Reserves @ Cedar Creek Subdivision**
City File Number: SUB 19-02
County File Number: CP 20-909
Tax Map and Lot Number(s): 3S1060000100 & 3S1060000101
Location: SW Brookman Road

Washington County Department of Land Use and Transportation has reviewed this development application to subdivide approximately 15.76 acres into 59 individual lots for single family detached homes and a public street on SW Brookman Avenue, a County-maintained Arterial (5 lanes). Lots 1-44 will gain access via the public street that will be constructed as part of Middlebrook Subdivision and Lots 45-59 will gain access via a new public street, SW Robin Hood Place (cul-de-sac).

The proposed street, SW Robin Hood Place, does not meet the County's standard for access to an Arterial because the street is not classified as an Arterial or Collector. However, the applicant has requested a Design Exception (October 7, 2019) to the County's access standard for Arterials and has received approval by the County Engineer for the proposed public street connection (December 9, 2019).

A Traffic Impact Analysis and supplemental information by Kittleson & Associates (February 12, 2020) was submitted in accordance with Washington County R&O 86-95, "Determining Traffic Safety Improvements" for developments. County staff has reviewed the TIA and concurs with the findings/recommendations of the analysis.

I. PRIOR TO ISSUANCE OF A SITE DEVELOPMENT PERMIT BY THE CITY OF SHERWOOD, THE APPLICANT SHALL OBTAIN A WASHINGTON COUNTY FACILITY PERMIT FOR CONSTRUCTION OF THE FOLLOWING PUBLIC IMPROVEMENTS ON SW BROOKMAN ROAD:

Department of Land Use & Transportation
Operations and Maintenance
1400 SW Walnut Street, MS 51, Hillsboro, OR 97123-5625
phone: 503-846-7623 • fax: 503-846-7620
www.co.washington.or.us/lut • lutops@co.washington.or.us

A. Submit the following to **Washington County** Public Assurance Staff (503-846-3843):

1. Completed "Design Option" form.

2. **$12,000.00** Administration Deposit.

   NOTE: The Administration Deposit is a cost-recovery account used to pay for County services provided to the developer, including plan review and approval, field inspections, as-built approval, and project administration. The Administration Deposit amount noted above is an estimate of what it will cost to provide these services. If, during the project, the Administration Deposit account is falls below County approved level, additional funds will be requested to cover the estimated time left on the project (at then-current rates per the adopted Washington County Fee Schedule). If there are any unspent funds at project close out, they will be refunded to the applicant. Any point of contact with County staff can be a chargeable cost. If project plans are not complete or do not comply with County standards and codes, costs will be higher. There is a charge to cover the cost of every field inspection. Costs for enforcement actions will also be charged to the applicant.

3. Copy of the City's Notice of Decision (NOD) and the County's letter dated March 9, 2020.

4. Engineering plans and Geotech/Pavement report via ProjectDox for construction of the following public improvements to County standards:

   a. Public street connection to SW Brookman Road. The access shall include curb returns with ADA ramps, including adequate street lighting at the street connection to SW Brookman Road. The access shall be constructed per the approved County's Design Exception dated December 9, 2019 (refer to "3 Lane Interim Design" exhibit).

   b. Construction of a minimum of 22 feet of pavement with 4-foot shoulders and roadside ditching along the site's frontage of SW Brookman Road. Pavement width less than 22 feet subject to approval by the County Engineer.

   c. Improvements required for adequate intersection sight distance at the public street connection to SW Brookman Road, including for construction access (if proposed).

   d. Closure of all existing access from the subject tax lots to SW Brookman Road.

   e. Preliminary certification of adequate sight distance for construction access (if proposed) and public street connection to SW Brookman Road.

f. Construction access and traffic control plan, if proposed.

II. PRIOR TO APPROVAL OF THE PLAT RECORDATION BY THE CITY OF SHERWOOD AND WASHINGTON COUNTY:

A. The following shall be shown on the plat and recorded with Washington County Survey Division (503.846.8723):

1. Dedication of additional right-of-way to provide 53 feet from the centerline of SW Brookman Road, including adequate corner radius at the intersection with the new public street.

III. PRIOR TO OCCUPANCY OF A DWELLING:

A. The road improvements required in condition **I.A.4.** above shall be completed and approved by Washington County.

B. Pay a fee in-lieu of constructing 5 lanes (half-width) on SW Brookman Road to the County. The engineer's estimate shall include the following items:

1. Asphalt (known standards for materials, width and thickness),
2. Standard base rock (known standards for materials and thickness),
3. Sidewalks (known standards for material, thickness and width),
4. Curb and gutter,
5. Striping,
6. Street trees,
7. Street light (including lights and conduits),
8. Planter strip plantings,
9. Irrigation system,
10. Stormwater drainage collection, conveyance, and treatment.

If you have any questions, please contact me at 503-846-7639.

Cc: Road Engineering Services
Traffic Engineering Services
Assurances Section
Transportation File

Exhibit D.1

Oregon
Kate Brown, Governor

Department of Transportation
Region 1 Headquarters
123 NW Flanders Street
Portland, Oregon 97209
(503) 731.8200
FAX (503) 731.8259

January 30, 2020 ODOT #10514

ODOT Response

Project Name: Cedar Creek Subdivision	**Jurisdiction Case #:** SUB 19-02
Jurisdiction: City of Sherwood	**State Highway:** OR 99W
Site Address: 17045 and 17117 SW Brookman Road, Sherwood, OR	

The site of this proposed land use action is in the vicinity of OR 99W. ODOT has permitting authority for this facility and an interest in ensuring that this proposed land use is compatible with its safe and efficient operation.

COMMENTS/FINDINGS

The applicant proposes to subdivide ±15.76 acre of land into 59 individual lots for single-family detached homes within the vicinity of OR 99W. ODOT has reviewed the Traffic Impact Analysis (TIA) prepared by Kittelson and Associates dated September 19, 2019. ODOT has the following comments:

I. The analysis studied the OR 99W intersections at Sunset Blvd and Brookman Rd. The Oregon Highway Plan mobility target for these intersections is a volume to capacity (v/c) ratio of 0.99.

II. The study was prepared with the assumption that Brookman Road is restricted to right in/right out (RI/RO) movements at the intersection with OR 99W. The restriction that has been approved for construction to date is for Right In/Left In/Right Out (RI/LI/RO) movements.

III. The approved configuration of the Brookman Rd/OR 99W intersection will impact the trip generation and distribution for this development and other in process development (approved land uses). This will have a significant impact on the results of the TIA. Therefore, ODOT recommends that the study be updated to reflect this updated configuration of the intersection, including, but not limited to, the associated redistribution of trips from Sunset Blvd.

IV. The TIA includes inaccurate results of mobility targets under background conditions and built condition for the proposed development. Once the study is updated and any of the mobility targets are found to operate above the mobility target the standard becomes no further degradation.

V. Upon updating the study to reflect the correct configuration of the Brookman Rd/OR 99W intersection, the mobility target at OR 99W/Sunset Rd intersection is anticipated to operate above the target under background conditions. If that is the case, the study should identify improvements so that there is no further degradation.

VI. ODOT recommends the city require the applicant to contribute their proportionate share to the planned signal at the Brookman Rd/OR 99W intersection identified in the Sherwood Transportation System Plan.

Please contact the Traffic Contact below to scope the updated Traffic Impact Analysis.

Development Review Planner: Marah Danielson	503.731.8258, marah.b.danielson@odot.state.or.us
Traffic Contact: Avi Tayar, P.E.	503.731.8221 Abraham.tayar@odot.state.or.us

Oregon
Kate Brown, Governor

Exhibit D.2
Department of Transportation
Region 1 Headquarters
123 NW Flanders Street
Portland, Oregon 97209
(503) 731.8200
FAX (503) 731.8259

March 17, 2020 ODOT #10514

ODOT Response

Project Name: Cedar Creek Subdivision	**Jurisdiction Case #:** SUB 19-02
Jurisdiction: City of Sherwood	**State Highway:** OR 99W
Site Address: 17045 and 17117 SW Brookman Road, Sherwood, OR	

The site of this proposed land use action is in the vicinity of OR 99W. ODOT has permitting authority for this facility and an interest in ensuring that this proposed land use is compatible with its safe and efficient operation.

The applicant proposes to subdivide ±15.76 acre of land into 59 individual lots for single-family detached homes within the vicinity of OR 99W. ODOT has reviewed the Traffic Impact Analysis (TIA) prepared by Kittelson and Associates dated February 20, 2020. ODOT has the following comments:

1. OR 99W/SW Elwert/SW Sunset Intersection
    a. The TIA shows that this intersection is operating above the Oregon Highway Plan mobility target under existing conditions as well as with the proposed development (an increase from a 1.06 v/c ratio to a 1.07 v/c ratio). On page 30 of the TIA, the report states, “Given that the already over-capacity v/c ratio change is less than .03 assuming no signal timing changes, the City of Sherwood could make a finding that site development impacts do not require mitigation per ODOT Policy Statement findings relative to the change in v/c ratio.” The Oregon Highway Policy that is referenced is 1F action 5 which states, “For purposes of evaluating amendments to the transportation system plan, acknowledged comprehensive plans and land use regulations subject to OAR 660-012-0060. The proposed land use action is for a subdivision and is not subject to OAR 660-012-0060, therefore this policy is not applicable. Since the mobility target under existing conditions is already exceed, the performance standard is to avoid further degradation which is not met.
2. OR 99W/SW Chapman/SW Brookman Intersection
    a. This intersection does not meet the Oregon Highway Plan mobility target under existing conditions as well as with the proposed development. Therefore, the performance standard is no further degradation. The city’s Transportation System Plan identifies a project to signalize this intersection to address the capacity deficiencies. While the project to install a signal at this intersection would mitigate the proposed development, it is a high cost improvement. Therefore, ODOT recommends that the applicant be required to contribute a proportionate share contribution towards the signalization of the intersection based on the critical movement at the intersection.

b. This intersection is located within the ODOT Region 2 boundary. Attached is a letter from Region 2 which addresses safety and operational issues at the intersection and supporting the recommendation for proportionate share contribution towards the TSP project to signalize the intersection.

Please send a copy of the Notice of Decision including conditions of approval to:

ODOT Region 1 Planning
Development Review
123 NW Flanders St
Portland, OR 97209

ODOT_R1_DevRev@odot.state.or.us

Development Review Planner: Marah Danielson	503.731.8258, marah.b.danielson@odot.state.or.us
Region 1 Traffic Contact: Avi Tayar, P.E.	503.731.822121 Abraham.tayar@odot.state.or.us
Region 2 Access Management Engineer: Scott Nelson, P.E.	503.986.2882 Brian.S.NELSON@odot.state.or.us

Oregon
Kate Brown, Governor

Department of Transportation
ODOT Region 2 HQ
455 Airport Rd SE,

March 6, 2020

Bob Galati, P.E. and Joy Chang
City of Sherwood
22560 SW Pine Street
Sherwood, OR 97140

SUBJECT: ODOT Region 2 Comments for Potential Mitigation at OR 99W and Brookman/Chapman (M.P. 17.47)

Dear Bob and Joy,

This letter is intended to document discussions regarding the operations of the OR99W and Brookman Rd/Chapman Rd intersection. The intersection's most recent Safety Priority Index System (SPIS) rating is approximately a 50, which classifies it as a top 10% site. The SPIS is a method ODOT uses for identifying potential safety problems on state highways. Due to its top 10% status ODOT's Region 2 All Roads Transportation Safety (ARTS) Program has reviewed the site for mitigation options and identified a J-Turn Intersection as a preferred option. The J-Turn Intersection would restrict left-outs for both Brookman and Chapman and provide downstream median u-turn crossovers. Planning level scoping has estimated this project in the 1-2 million dollar price range. ARTS projects are selected on an expected cost-benefit analysis system. In the last cycle the project did not make the cut for more detailed scoping. The ARTS Program has stated that as long as the site remains a top 10% SPIS site they intend to propose the J-Turn Intersection treatment. As the project competes with other high priority sites, it is unknown if the project will receive funding.

ODOT is currently working with the developer of the Middlebrook Subdivision to install features restricting turn movements at the Brookman leg of the intersection. This feature is intended to improve operations; ODOT will continue to monitor the site for safety improvements or degradation.

Regarding the proposed 59 lot subdivision, The Reserve at Cedar Creek, ODOT does not recommend any safety mitigation requirements. No feasible and proportional improvements have been identified. The development shall be responsible for a proportional share of future improvements at OR99W and Brookman Rd. identified in the City of Sherwood TSP.

Sincerely,

B. Scott Nelson, P.E.
Region 2 Access Management Engineer

Tualatin Valley Fire & Rescue

Exhibit E

www.tvfr.com

January 21, 2020

Joy Chang
Senior Planner
City of Sherwood
22560 SW Pine Street
Sherwood, Oregon 97140

Re: Reserves at Cedar Creek
Tax Lot I.D: 3S1060000100, 3S1060000101

Dear Joy,

Thank you for the opportunity to review the proposed site plan surrounding the above named development project. These notes are provided in regards to the plans received December 5, 2019. There may be more or less requirements needed based upon the final project design, however, Tualatin Valley Fire & Rescue will endorse this proposal predicated on the following criteria and conditions of approval.

FIRE APPARATUS ACCESS:

1. **FIRE APPARATUS ACCESS ROAD DISTANCE FROM BUILDINGS AND FACILITIES:** Access roads shall be within 150 feet of all portions of the exterior wall of the first story of the building as measured by an approved route around the exterior of the building or facility. An approved turnaround is required if the remaining distance to an approved intersecting roadway, as measured along the fire apparatus access road, is greater than 150 feet. (OFC 503.1.1)

2. **DEAD END ROADS AND TURNAROUNDS:** Dead end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround. Diagrams can be found in the corresponding guide. http://www.tvfr.com/DocumentCenter/View/1438 (OFC 503.2.5 & D103.1)

3. **ADDITIONAL ACCESS ROADS – ONE- OR TWO-FAMILY RESIDENTIAL DEVELOPMENTS:** Developments of one- or two-family dwellings, where the number of dwelling units exceeds 30, shall be provided with separate and approved fire apparatus access roads and shall meet the requirements of Section D104.3. Exception: Where there are more than 30 dwelling units on a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system in accordance with section 903.3.1.1, 903.3.1.2, or 903.3.1.3 of the International Fire Code, access from two directions shall not be required. (OFC D107)

4. **MULTIPLE ACCESS ROADS SEPARATION:** Where two access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the area to be served (as identified by the Fire Marshal), measured in a straight line between accesses. (OFC D104.3)

5. **FIRE APPARATUS ACCESS ROAD WIDTH AND VERTICAL CLEARANCE:** Fire apparatus access roads shall have an unobstructed driving surface width of not less than 20 feet (26 feet adjacent to fire hydrants (OFC D103.1)) and an unobstructed vertical clearance of not less than 13 feet 6 inches. (OFC 503.2.1)

6. **FIRE APPARATUS ACCESS ROADS FOR AGRICULTURAL/EQUINE EXEMPT STRUCTURES**
Agricultural buildings and equine facilities, as defined in ORS 455.315, shall be exempt from the fire apparatus access requirements contained in Tualatin Valley Fire & Rescue's adopted fire prevention ordinance. (See Appendix B located in the corresponding guide. http://www.tvfr.com/DocumentCenter/View/1438)

7. **NO PARKING SIGNS:** Where fire apparatus roadways are not of sufficient width to accommodate parked vehicles and 20 feet of unobstructed driving surface, "No Parking" signs shall be installed on one or both sides of the roadway and in turnarounds as needed. Signs shall read "NO PARKING - FIRE LANE" and shall be installed with a clear space above grade level of 7 feet. Signs shall be 12 inches wide by 18 inches high and shall have red letters on a white reflective background. (OFC D103.6)

Install no parking signs along Tract A and Tract G on both sides.

8. **NO PARKING:** Parking on emergency access roads shall be as follows (OFC D103.6.1-2):
   1. 20-26 feet road width – no parking on either side of roadway
   2. 26-32 feet road width – parking is allowed on one side
   3. Greater than 32 feet road width – parking is not restricted

9. **PAINTED CURBS:** Where required, fire apparatus access roadway curbs shall be painted red (or as approved) and marked "NO PARKING FIRE LANE" at 25 foot intervals. Lettering shall have a stroke of not less than one inch wide by six inches high. Lettering shall be white on red background (or as approved). (OFC 503.3)

10. **FIRE APPARATUS ACCESS ROADS WITH FIRE HYDRANTS:** Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet and shall extend 20 feet before and after the point of the hydrant. (OFC D103.1)

11. **SURFACE AND LOAD CAPACITIES:** Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced as to provide all-weather driving capabilities. (OFC 503.2.3)

12. **TURNING RADIUS:** The inside turning radius and outside turning radius shall not be less than 28 feet and 48 feet respectively, measured from the same center point. (OFC 503.2.4 & D103.3)

13. **ACCESS ROAD GRADE:** Fire apparatus access roadway grades shall not exceed 15%.

14. **ANGLE OF APPROACH/GRADE FOR TURNAROUNDS:** Turnarounds shall be as flat as possible and have a maximum of 5% grade with the exception of crowning for water run-off. (OFC 503.2.7 & D103.2)

15. **ANGLE OF APPROACH/GRADE FOR INTERSECTIONS:** Intersections shall be level (maximum 5%) with the exception of crowning for water run-off. (OFC 503.2.7 & D103.2)

16. **GATES:** Gates securing fire apparatus roads shall comply with all of the following (OFC D103.5, and 503.6):
   1. Minimum unobstructed width shall be not less than 20 feet (or the required roadway surface width).
   2. Gates serving three or less single-family dwellings shall be a minimum of 12 feet in width.
   3. Gates shall be set back at minimum of 30 feet from the intersecting roadway or as approved.
   4. Electric gates shall be equipped with a means for operation by fire department personnel
   5. Electric automatic gates shall comply with ASTM F 2200 and UL 325.

17. **ACCESS DURING CONSTRUCTION:** Approved fire apparatus access roadways shall be installed and operational prior to any combustible construction or storage of combustible materials on the site. Temporary address signage shall also be provided during construction. (OFC 3309 and 3310.1)

18. **TRAFFIC CALMING DEVICES:** Shall be prohibited on fire access routes unless approved by the Fire Marshal. (OFC 503.4.1). Traffic calming measures linked here: http://www.tvfr.com/DocumentCenter/View/1578

FIREFIGHTING WATER SUPPLIES:

19. **FIREFIGHTING WATER SUPPLY FOR INDIVIDUAL ONE- AND TWO-FAMILY DWELLINGS:** The minimum available fire flow for one and two-family dwellings served by a municipal water supply shall be 1,000 gallons per minute. If the structure(s) is (are) 3,600 square feet or larger, the required fire flow shall be determined according to OFC Appendix B. (OFC B105.2)

20. **FIRE FLOW WATER AVAILABILITY:** Applicants shall provide documentation of a fire hydrant flow test or flow test modeling of water availability from the local water purveyor if the project includes a new structure or increase in the floor area of an existing structure. Tests shall be conducted from a fire hydrant within 400 feet for commercial projects, or 600 feet for residential development. Flow tests will be accepted if they were performed within 5 years as long as no adverse modifications have been made to the supply system. Water availability information may not be required to be submitted for every project. (OFC Appendix B)

    Provide documentation of fire hydrant flow test or modeling.

21. **WATER SUPPLY DURING CONSTRUCTION IN MUNICIPAL AREAS:** In areas with fixed and reliable water supply, approved firefighting water supplies shall be installed and operational prior to any combustible construction or storage of combustible materials on the site. (OFC 3312.1)

FIRE HYDRANTS:

22. **FIRE HYDRANTS – ONE- AND TWO-FAMILY DWELLINGS & ACCESSORY STRUCTURES:** Where the most remote portion of a structure is more than 600 feet from a hydrant on a fire apparatus access road, as measured in an approved route around the exterior of the structure(s), on-site fire hydrants and mains shall be provided. (OFC 507.5.1)

23. **FIRE HYDRANT NUMBER AND DISTRIBUTION:** The minimum number and distribution of fire hydrants available to a building shall not be less than that listed in Table C 105.1. (OFC Appendix C)

    Fire hydrant locations are acceptable as per plans on page P6.0

24. **FIRE HYDRANT(S) PLACEMENT:** (OFC C104)
    - Existing hydrants in the area may be used to meet the required number of hydrants as approved. Hydrants that are up to 600 feet away from the nearest point of a subject building that is protected with fire sprinklers may contribute to the required number of hydrants. (OFC 507.5.1)
    - Hydrants that are separated from the subject building by railroad tracks shall not contribute to the required number of hydrants unless approved by the Fire Marshal.
    - Hydrants that are separated from the subject building by divided highways or freeways shall not contribute to the required number of hydrants. Heavily traveled collector streets may be considered when approved by the Fire Marshal.
    - Hydrants that are accessible only by a bridge shall be acceptable to contribute to the required number of hydrants only if approved by the Fire Marshal.

25. **PRIVATE FIRE HYDRANT IDENTIFICATION:** Private fire hydrants shall be painted red in color. Exception: Private fire hydrants within the City of Tualatin shall be yellow in color. (OFC 507)

    If private hydrants will be installed, then TVFR will review and field inspect the installation.

26. **FIRE HYDRANT DISTANCE FROM AN ACCESS ROAD:** Fire hydrants shall be located not more than 15 feet from an approved fire apparatus access roadway unless approved by the Fire Marshal. (OFC C102.1)

27. **REFLECTIVE HYDRANT MARKERS:** Fire hydrant locations shall be identified by the installation of blue reflective markers. They shall be located adjacent and to the side of the center line of the access roadway that the fire hydrant is located on. In the case that there is no center line, then assume a center line and place the reflectors accordingly. (OFC 507)

28. **PHYSICAL PROTECTION:** Where fire hydrants are subject to impact by a motor vehicle, guard posts, bollards or other approved means of protection shall be provided. (OFC 507.5.6 & OFC 312)

29. **CLEAR SPACE AROUND FIRE HYDRANTS:** A 3 foot clear space shall be provided around the circumference of fire hydrants. (OFC 507.5.5)

BUILDING ACCESS AND FIRE SERVICE FEATURES

30. **PREMISES IDENTIFICATION:** New and existing buildings shall have approved address numbers; building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property, including monument signs. These numbers shall contrast with their background. Numbers shall be a minimum of 4 inches high with a minimum stroke width of 1/2 inch. (OFC 505.1)

FIRE SAFETY DURING CONSTRUCTION

General:

Owner's Responsibility for Fire Protection (Section 3308)

- Designate a fire prevention program superintendent, responsible for fire prevention planning and ensuring it is carried out through the completion of the project. Specific responsibilities include:
- Identifying a pre-fire plan, training responsible personnel, and ensuring fire protection devices are maintained, serviced and in working order.
- The owner shall also ensure a working phone line is readily assessible for emergency notification. It should have the construction site street address posted with it for callers to reference. (Section 3309)

Inherent to the Structure/Site:

Access for Fire Fighting (*Section 3310*):

- Access shall be capable to provide support of the emergency vehicle load in all weather conditions. The access shall be maintained until the permanent fire apparatus access road is available.
- Approved emergency vehicle access shall be provided to every site, allowing access to within 100 feet of temporary or permanent fire department connections.

Addressing (*Section 505*):

- Temporary signage shall be installed and used to identify new construction site. (May include street/intersection, in addition to approved address/building numbers.)

Water Supply: (*Section 3312*):

- An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives on site.

Automatic Fire Sprinkler System (*Section 3314*):

- The automatic fire sprinkler system (when required) shall be installed, tested, and approved before occupancy may be established.

- The sprinkler control valves shall be operated by properly authorized personnel. When valves are closed or the system is turned off to facilitate connections, the valves shall be inspected at the end of each work period to ensure the protection feature has been returned to service.

Standpipes (*Section 3313*):

- Where standpipe systems are required, not less than one shall be provided for use during construction. They shall be installed when the progress of construction is not more than 40 feet in height.
- Standpipes shall be provided with fire department connections

Flammable and Combustible Liquids and Gases (Section 3305 & 3306):

- Storage of these materials shall be in accordance with section 5704, clear of combustible waste, storage, and vegetation, and provided with signage prohibiting smoking or sources of ignition in such areas.
- The Class I & II liquids shall be kept in approved safety containers when not in storage.
- Storage of Flammable gases shall be in accordance with Chapter 58.

Means of Egress (Section 3311):

- Required means of egress shall be maintained during construction. If necessary and as approved, a temporary egress system may be established.

Job Site Operations:

Housekeeping (Section 3304):

- Combustible debris shall not be accumulated within buildings. Combustible debris, rubbish, and waste material shall be removed from the building at the end of each shift of work. Disposing of waste material by burning on site is prohibited.
- Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a listed, tightly sealed, disposal container.

Smoking (Section 3304):

- Smoking shall be prohibited except for in approved areas. Signs shall be posted, and approved ashtrays shall be provided in accordance with section 310.

Cutting and Welding (Section 3304):

- Cutting, welding and other hot work shall be performed in accordance with Chapter 35.

Portable Fire Extinguishers (Section 3315):

- Sites shall be provided with not less than one approved portable fire extinguisher (in accordance with section 906) that is sized for not less than ordinary hazard.
- Placement shall include each stairway on all floor levels where combustible materials have accumulated, in every storage and construction shed, and where special hazards exit (example: flammable liq. storage areas). See Roofing Operations for additional note.

Roofing Operations (Section 3317):

- Asphalt and tar kettles shall be operated in accordance with section 303.
- There shall be not less than one multipurpose portable fire extinguisher with a minimum 3-A 40-B:C rating on the roof being covered or repaired.

Temporary Heating Operations (Section 3303):

- Heating equipment must be listed and labeled for the intended use. Oil-fired heaters shall comply with section 603. LP-gas heaters shall comply with Chapter 61 and the International Fuel Gas Code.
- When refueling the equipment and appliance shall be allowed to cool prior to refueling. Fueling itself shall be in accordance with section 5705.

Fire Watch (Section 3304)

- When required, due to work performed that is hazardous in nature, qualified personnel shall be provided to serve as an on-site fire watch. Click here to access detailed information and logging the activity.

If you have questions or need further clarification or would like to discuss any alternate methods and/or materials, please feel free to contact me at 503-259-1419.

Sincerely,

Tom Mooney

Tom Mooney
Deputy Fire Marshal II

Thomas.mooney@tvfr.com

Cc: File
City of Sherwood

A full copy of the New Construction Fire Code Applications Guide for Residential Development is available at http://www.tvfr.com/DocumentCenter/View/1438

Clean Water Services

Exhibit F.1

MEMORANDUM

Date: February 3, 2020

To: Joy Chang, Senior Planner, City of Sherwood

From: Jackie Sue Humphreys, Clean Water Services (CWS)

Subject: Reserves at Cedar Creek Subdivision, SUB 19-02, 3S1060000100, 00101

Please include the following comments when writing your conditions of approval:

The subject site is currently outside the jurisdictional boundary of Clean Water Services. Site must complete the annexation process in order for public sanitary or storm sewer services to be provided.

PRIOR TO ANY WORK ON THE SITE AND PLAT RECORDING

A Clean Water Services (CWS) Storm Water Connection Permit Authorization must be obtained prior to plat approval and recordation. Application for CWS Permit Authorization must be in accordance with the requirements of the Design and Construction Standards, Resolution and Order No. 19-5 as amended by R&O 19-22, or prior standards as meeting the implementation policy of R&O 18-28, and is to include:

a. Detailed plans prepared in accordance with Chapter 2, Section 2.04.

b. Detailed grading and erosion control plan. An Erosion Control Permit will be required. Area of Disturbance must be clearly identified on submitted construction plans. If site area and any offsite improvements required for this development exceed one-acre of disturbance, project will require a 1200-CN Erosion Control Permit. If site area and any offsite improvements required for this development exceed five-acres of disturbance, project will require a 1200-C Erosion Control Permit.

c. Detailed plans showing each lot within the development having direct access by gravity to public storm and sanitary sewer.

2550 SW Hillsboro Highway • Hillsboro, Oregon 97123
Phone: (503) 681-3600 • Fax: (503) 681-3603 • cleanwaterservices.org

d. Provisions for water quality in accordance with the requirements of the above named design standards. Water Quality is required for all new development and redevelopment areas per R&O 19-5, Section 4.04. Access shall be provided for maintenance of facility per R&O 19-5, Section 4.07.6.

e. If use of an existing offsite or regional Water Quality Facility is proposed, it must be clearly identified on plans, showing its location, condition, capacity to treat this site and, any additional improvements and/or upgrades that may be needed to utilize that facility.

f. If private lot LIDA systems proposed, must comply with the current CWS Design and Construction Standards. A private maintenance agreement, for the proposed private lot LIDA systems, needs to be provided to the City for review and acceptance.

g. Show all existing and proposed easements on plans. Any required storm sewer, sanitary sewer, and water quality related easements must be granted to the City.

h. Applicant shall comply with the conditions as set forth in the Service Provider Letter No. 19-001036, amended September 17, 2019.

i. Developer may be required to preserve a corridor separating the sensitive area from the impact of development. The corridor must be set aside in a separate tract, not part of any buildable lot and, shall be subject to a "Storm Sewer, Surface Water, Drainage and Detention Easement over its entirety", or its equivalent.

j. Detailed plans showing the sensitive area and corridor delineated, along with restoration and enhancement of the corridor.

k. If there is any activity within the sensitive area, the applicant shall gain authorization for the project from the Oregon Department of State Lands (DSL) and US Army Corps of Engineers (USACE). The applicant shall provide Clean Water Services or its designee (appropriate city) with copies of all DSL and USACE project authorization permits.

l. Any proposed offsite construction activities will require an update or amendment to the current Service Provider Letter for this project.

CONCLUSION

This Land Use Review does not constitute CWS approval of storm or sanitary sewer compliance to the NPDES permit held by CWS. CWS, prior to issuance of any connection permits, must approve final construction plans and drainage calculations.

Clean Water Services
Our commitment is clear.

Exhibit F.2

AMENDED Service Provider Letter

CWS File Number: **19-001036**

This form and the attached conditions will serve as your Service Provider Letter in accordance with Clean Water Services Design and Construction Standards (R&O 19-5).

Jurisdiction:	City of Sherwood	**Review Type:**	Tier 2 Analysis
		SPL Original Date:	April 16, 2019
Site Address / Location:	17045 & 17117 SW Brookman RD Sherwood, OR 97140	**SPL Amendment Date:**	September 17, 2019
		SPL Expiration Date:	September 16, 2021

Applicant Information:		**Owner Information:**	
Name	MIKE IRWIN	Name	JACK DALTON
Company	WEEKLEY HOMES, LLC	Company	ENVIRONMENTAL SCIENCE & ASSESS
Address	1930 THOREAU DR SUITE 160 SCHEUMBURG IL 60173	Address	107 SE WASHINGTON ST SUITE 249 PORTLAND OR 97214
Phone/Fax		Phone/Fax	(503) 478-0424
E-mail:	mirwin@dwmoes.com	E-mail:	jack@esapdx.com

Tax lot ID	**Development Activity**
3S1060000100, 101	DW Homes – Brookman Subdivision

Pre-Development Site Conditions:		**Post Development Site Conditions:**	
Sensitive Area Present:	[X] On-Site [X] Off-Site	Sensitive Area Present:	[X] On-Site [X] Off-Site
Vegetated Corridor Width:	Variable	Vegetated Corridor Width:	Variable
Vegetated Corridor Condition:	Good/Marginal/Degraded		

Enhancement of Remaining Vegetated Corridor Required: [X] **Square Footage to be enhanced:** 122,690

Encroachments into Pre-Development Vegetated Corridor:

Type and location of Encroachment:	Square Footage:
Lots, Road (Permanent Encroachment; Mitigation Required)	7,041

Mitigation Requirements:

Type/Location	Sq. Ft./Ratio/Cost
On-site VC Replacement	4,157/2.4:1
Per R&O 13-12, VC Encroachment Requirements Associated with Wetland Mitigation Bank Credits are Waived	5,327

[X] Conditions Attached [X] Development Figures Attached (2) [ ] Planting Plan Attached [ ] Geotech Report Required

This Service Provider Letter does NOT eliminate the need to evaluate and protect water quality sensitive areas if they are subsequently discovered on your property.

ALTERNATIVES ANALYSIS

1. **The proposed encroachment area is mitigated in accordance with Section 3.08.**
   The proposed site plan will impact Vegetated Corridors due to roadway and lot development. The VC impacts totaling 1,714 square feet in the south portion of the site will be mitigated on site within the large open space tract. The on-site mitigation totals 4,157 square feet, which includes enhancement of several degraded areas north of the creek and two areas of good condition habitat where invasive species removal will occur. Mitigation for impacts to the isolated Wetland A (4,208 sf) and 25-foot VC totaling 5,327 square feet will be mitigated through the purchase of wetland mitigation bank credits.

2. **The replacement mitigation protects the functions and values of the Vegetated Corridor and Sensitive Area.**
   VC functions impacted by trail encroachment and road encroachment will be offset with VC mitigation areas along the Cedar Creek corridor totaling greater acreage than the impact acreage. VC functions lost with the elimination of Wetland A in north end will be provided by the purchase of wetland mitigation bank credits. The mitigation bank credits will offset the lost wetland functions, which are minimal for this wetland. Elimination of the Wetland A and associated VC will not greatly impact the existing function of the local watershed, since the wetland is currently isolated from any surrounding wetland or waters by the existing subdivision to the north.

3. **Enhancement of the replacement area, if not already In Good Corridor Condition, and either the remaining Vegetated Corridor on the site or the first 50 feet of width closest to the resource.**
   A total of 54,172 square feet of existing VC (Degraded and Marginal Condition) will be enhanced along the sensitive areas in the north and south end along the Cedar Creek corridor to district standards. Good condition corridor totaling 68,518 square feet will have invasive species removal only. The Marginal VC outside of the first 50 feet (731 sf) is also included in the enhancement area to maximize the ecological benefit to the sensitive areas in south end where the highest invasive cover is currently present.

4. **A District Stormwater Connection Permit is likely to be issued based on proposed plans.**
   The project engineer has submitted a preliminary storm drainage report with the land use application to the City of Sherwood. Upon acceptance of the Tier 2, construction plans with the proposed storm water treatment plan will be submitted with the goal to achieve a Stormwater Connection Permit.

5. **Location of development and site planning minimizes incursion into the Vegetated Corridor.**
   The preferred site plan minimizes VC encroachment by clustering the lot development to the north and south end of the site and reducing the lot sizes. The preferred site plan maximizes the open space area in the middle of the site and maintains a direct connection to off-site habitat east and west of the site. The only wetland impacts are of the small isolated Wetland A in north end that is already cut off from the surrounding watershed. The VC functions associated with Wetland A lost by removal will not be significant to the watershed since the wetland is already cut off from the downstream watershed.

6. **No practicable alternative to location of the development exists that will not disturb the Sensitive Area or Vegetated Corridor.**
   The preferred alternative clusters development and avoids all impacts to the Cedar Creek wetlands and floodplain in the middle of site. This plan results in unavoidable impacts to Wetland A in north end of the site with the development of Lots 1 and 2, with direct wetland impacts (4,208 sf) and CWS VC totaling 5,327 square feet (4,674 sf on-site/ 653 sf off-site). The site plan alternatives that attempted to avoid direct impact to Wetland A were found to be unfeasible since they either resulted in greater wetland impacts in another part of site or result in indirect impacts to the wetland by cutting off source hydrology to the wetland. Unavoidable loss of Wetland A hydrology will result in any alternative, even if not impacted directly, since the adjacent subdivision to the west and the required on-site storm system will eliminate source hydrology to the wetland regardless. This plan also minimizes trail and frontage

improvements as much as possible. The trail in southeast end of the site is terminated at the edge of Good condition VC avoiding 369 square feet of previously proposed impact. The Brookman frontage improvements minimize impacts by using a 3-lane half street design standard instead of a 5-lane standard.

7. **The proposed encroachment provides public benefits.**
The site plan provides a 4,157 square foot mitigation area within an approximately 2.5-acre open space in the central and southeast portions of the site. The mitigation for trail and road improvement impacts provides a 2.4:1 mitigation area to impact area and will preserve the hydrologic functions of the Cedar Creek wetland and floodplain in the large open space area beyond the base VC setback in the middle of the site. Marginal VC outside of the first 50 feet (731 sf) is also included in the enhancement area to maximize the ecological benefit to sensitive areas where invasive cover is highest. The large contiguous open space area in the middle and southeast end of site will provide water quality public benefit to serve the surrounding Cedar Creek and downstream Tualatin River watershed. Wetland and VC functions lost with the elimination of Wetland A in north end will be replaced by the purchase of wetland mitigation bank credits and CWS PTP. The mitigation bank credits will offset the lost wetland functions, which are minimal for this wetland, by providing off-site benefits within a wetland mitigation bank.

In order to comply with Clean Water Services water quality protection requirements the project must comply with the following conditions:

1. No structures, development, construction activities, gardens, lawns, application of chemicals, uncontained areas of hazardous materials as defined by Oregon Department of Environmental Quality, pet wastes, dumping of materials of any kind, or other activities shall be permitted within the sensitive area or Vegetated Corridor which may negatively impact water quality, except those allowed in R&O 17-5, Chapter 3.
2. Prior to any site clearing, grading or construction the Vegetated Corridor and water quality sensitive areas shall be surveyed, staked, and temporarily fenced per approved plan. During construction the Vegetated Corridor shall remain fenced and undisturbed except as allowed by R&O 17-5, Section 3.06.1 and per approved plans.
3. **Prior to any activity within the sensitive area, the applicant shall gain authorization for the project from the Oregon Department of State Lands (DSL) and US Army Corps of Engineers (USACE). The applicant shall provide Clean Water Services or its designee (appropriate city) with copies of all DSL and USACE project authorization permits.**
4. An approved Oregon Department of Forestry Notification is required for one or more trees harvested for sale, trade, or barter, on any non-federal lands within the State of Oregon.
5. Prior to ground disturbing activities, an erosion control permit is required. Appropriate Best Management Practices (BMP's) for Erosion Control, in accordance with Clean Water Services' Erosion Prevention and Sediment Control Planning and Design Manual, shall be used prior to, during, and following earth disturbing activities.
6. Prior to construction, a Stormwater Connection Permit from Clean Water Services or its designee is required pursuant to Ordinance 27, Section 4.B.
7. Activities located within the 100-year floodplain shall comply with R&O 17-5, Section 5.10.
8. Removal of native, woody vegetation shall be limited to the greatest extent practicable.
9. The water quality swale and detention pond shall be planted with Clean Water Services approved native species, and designed to blend into the natural surroundings.
10. **Should final development plans differ significantly from those submitted for review by Clean Water Services, the applicant shall provide updated drawings, and if necessary, obtain a revised Service Provider Letter.**

11. The Vegetated Corridor width for sensitive areas within the project site shall be a minimum of 50 feet wide, as measured horizontally from the delineated boundary of the sensitive area.
12. For Vegetated Corridors that extend 35 feet from the break in slope, the width of Vegetated Corridors may be reduced to 15 feet wide if a stamped geotechnical report confirms that slope stability can be maintained with the reduced setback from the break in slope.
13. **For Vegetated Corridors greater than 50 feet in width, the applicant shall enhance the first 50 feet closest to the sensitive area to meet or exceed good corridor condition as defined in R&O 17-5, Section 3.14.2, Table 3-3.**
14. **For Vegetated Corridors up to 50 feet wide, the applicant shall enhance the entire Vegetated Corridor to meet or exceed good corridor condition as defined in R&O 17-5, Section 3.14.2, Table 3-3.**
15. Removal of invasive non-native species by hand is required in all Vegetated Corridors rated ""good."" Replanting is required in any cleared areas larger than 25 square feet using low impact methods. The applicant shall calculate all cleared areas larger than 25 square feet prior to the preparation of the required Vegetated Corridor enhancement/restoration plan.
16. Prior to any site clearing, grading or construction, the applicant shall provide Clean Water Services with a Vegetated Corridor enhancement/restoration plan. Enhancement/restoration of the Vegetated Corridor shall be provided in accordance with R&O 17-5, Appendix A, and shall include planting specifications for all Vegetated Corridor, including any cleared areas larger than 25 square feet in Vegetated Corridor rated ""good.""
17. Prior to installation of plant materials, all invasive vegetation within the Vegetated Corridor shall be removed per methods described in Clean Water Services' Integrated Vegetation and Animal Management Guidance, 2003. During removal of invasive vegetation care shall be taken to minimize impacts to existing native tree and shrub species.
18. Clean Water Services shall be notified 72 hours prior to the start and completion of enhancement/restoration activities. Enhancement/restoration activities shall comply with the guidelines provided in Planting Requirements (R&0 17-5, Appendix A).
19. **Maintenance and monitoring requirements shall comply with R&O 17-5, Section 2.12.2. If at any time during the warranty period the landscaping falls below the 80% survival level, the owner shall reinstall all deficient planting at the next appropriate planting opportunity and the two year maintenance period shall begin again from the date of replanting.**
20. **Performance assurances for the Vegetated Corridor shall comply with R&O 17-5, Section 2.07.2, Table 2-1 and Section 2.11, Table 2-2.**
21. **For any developments which create multiple parcels or lots intended for separate ownership, Clean Water Services shall require that the sensitive area and Vegetated Corridor be contained in a separate tract and subject to a ""STORM SEWER, SURFACE WATER, DRAINAGE AND DETENTION EASEMENT OVER ITS ENTIRETY"" to be granted to the City or Clean Water Services.**
22. **Final construction plans shall include landscape plans**. In the details section of the plans, a description of the methods for removal and control of exotic species, location, distribution, condition and size of plantings, existing plants and trees to be preserved, and installation methods for plant materials is required. Plantings shall be tagged for dormant season identification and shall remain on plant material after planting for monitoring purposes.
23. **A Maintenance Plan shall be included on final plans** including methods, responsible party contact information, and dates (minimum two times per year, by June 1 and September 30).
24. **Final construction plans shall clearly depict the location and dimensions of the sensitive area and the Vegetated Corridor** (indicating good, marginal, or degraded condition). Sensitive area boundaries shall be marked in the field.
25. Protection of the Vegetated Corridors and associated sensitive areas shall be provided by the installation of permanent fencing and signage between the development and the outer limits of

the Vegetated Corridors. **Fencing and signage details to be included on final construction plans.**

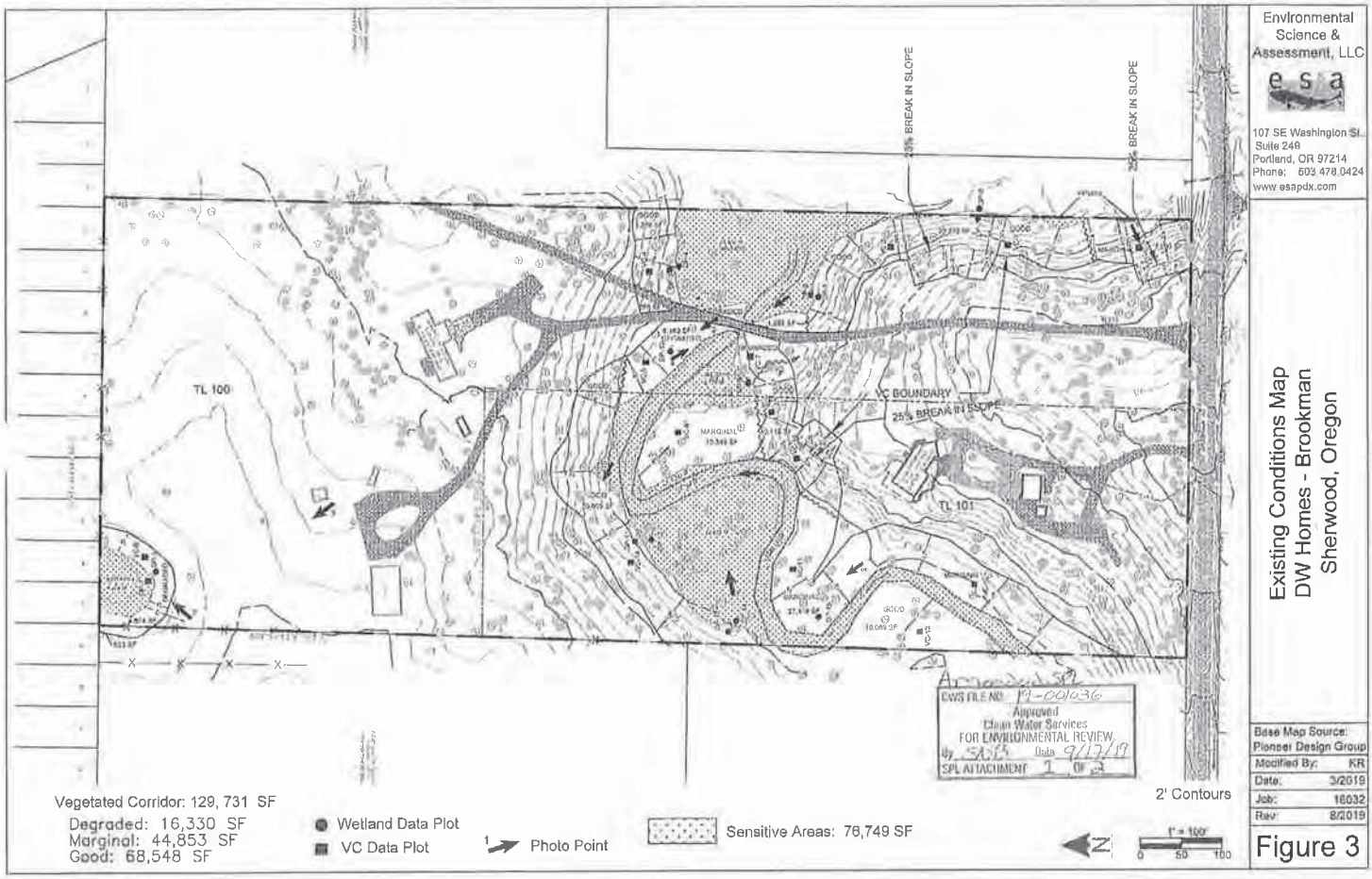
This Service Provider Letter is not valid unless CWS-approved site plan is attached.

Please call (503) 681-3667 with any questions.

Stacy Benjamin

Stacy Benjamin
Environmental Plan Review

Attachments (2)

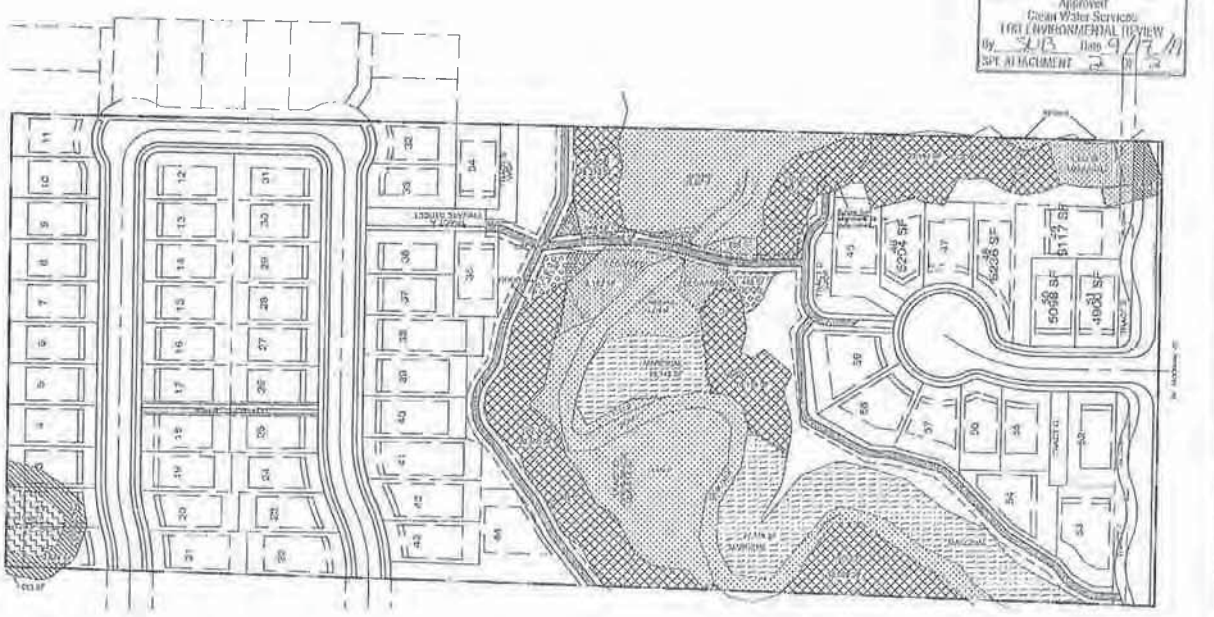


Environmental Science & Assessment, LLC
e s a
107 SE Washington St.
Suite 249
Portland, OR 97214
Phone: 503.478.0424
www.esapdx.com

Existing Conditions Map
DW Homes - Brookman
Sherwood, Oregon

Base Map Source:	Pioneer Design Group
Modified By:	KR
Date:	3/2019
Job:	16032
Rev:	8/2019

Figure 3



Environmental Science & Assessment, LLC
107 SE Washington St., Suite 249
Portland, OR 97214
Phone: 503.478.0424
www.esapdx.com

Site Plan
DW Homes - Brookman
Sherwood, Oregon

Base Map Source:	Pioneer Design Group
Modified By:	KR
Date:	3/2019
Job:	18032
Rev:	8/2019

Figure 4

Exhibit G

From: Kampfer, Dean
To: Joy Chang
Subject: RE: Request for Comments - Reserve at Cedar Creek Subdivision SUB 19-02
Date: Monday, March 2, 2020 11:58:48 AM
Attachments: image001.png

Joy

Waste Management is supportive of the subdivision as proposed.

DEAN A. KAMPFER
Municipal Marketing Manager
Public Sector Solutions - Oregon
dkampfer@wm.com

T: 503.493.7831
C: 503.849.6444
7227 NE 55th Ave.
Portland, OR 97218

From: Joy Chang <ChangJ@SherwoodOregon.gov>
Sent: Monday, March 2, 2020 11:15 AM
To: Kampfer, Dean <dkampfer@wm.com>
Subject: [EXTERNAL] FW: Request for Comments - Reserve at Cedar Creek Subdivision SUB 19-02

Dean,

Does Waste Management have any comments on this land use proposal? Would WM be able to service the proposed 59 units?

Please let me know either way, so I can incorporate your official comments within the Staff Report.

Thanks for the review.

Joy L. Chang
Senior Planner

From: Joy Chang
Sent: Tuesday, January 21, 2020 3:19 PM
To: d5b@nwnatural.com; r2g@nwnatural.com; henry.english@pgn.com; Travis.Smallwood@pgn.com; Jose.Marquez@pgn.com; humphreysj@CleanWaterServices.org;

Wetland Land Use Notice Response

Response Page

Department of State Lands (DSL) WN# *

WN2020-0059

Responsible Jurisdiction

Staff Contact	Jurisdiction Type	Municipality
Joy Chang	City	Sherwood

Local case file #	County
SUB 19-02	Washington

Activity Location

Township	Range	Section	QQ section	Tax Lot(s)
03S	01W	06		100,101

Street Address

17117 SW Brookman Rd

Address Line 2

City	State / Province / Region
Sherwood	OR

Postal / Zip Code	Country
97140	Washington

Latitude	Longitude
45.345832	-122.853184

Wetland/Waterway/Other Water Features

- [x] There are/may be wetlands, waterways or other water features on the property that are subject to the State Removal-Fill Law based upon a review of wetland maps, the county soil survey and other available information.

- [x] The National Wetlands Inventory shows wetland, waterway or other water features on the property

- [x] The county soil survey shows hydric (wet) soils on the property. Hydric soils indicate that there may be wetlands.

Your Activity

- [x] It appears that the proposed project **will** impact wetlands and **requires** a State Permit.

Applicable Oregon Removal-Fill Permit Requirement(s)

☑ A state permit is required for 50 cubic yards or more of fill removal or other ground alteration in wetlands, below ordinary high water of waterways, within other waters of the state, or below highest measured tide.

Closing Information

Additional Comments

Based on a review of the 2019 delineation, the proposed project will impact onsite wetlands. A permit and associated mitigation are required for impacts that are 50 cubic yards or greater.

It is likely this project will require a Joint Permit Application, permitting and mitigation. Contact Aquatic Resource Coordinator Anita Huffman at (503) 986-5250 for further questions.

This is a preliminary jurisdictional determination and is advisory only.

This report is for the State Removal-Fill law only. City or County permits may be required for the proposed activity.

☑ A Federal permit may be required by The Army Corps of Engineers: (503)808-4373

Contact Information

- For information on permitting, use of a state-owned water, wetland determination or delineation report requirements please contact the respective DSL Aquatic Resource, Proprietary or Jurisdiction Coordinator for the site county. The current list is found at: http://www.oregon.gov/dsl/ww/pages/wwstaff.aspx
- The current Removal-Fill permit and/or Wetland Delineation report fee schedule is found at: https://www.oregon.gov/dsl/WW/Documents/Removal-FillFees.pdf

Response Date

2/3/2020

Response by:

Chris Stevenson

Response Phone:

503-986-5246

Exhibit I

Joy Chang

From: Jose Marquez <Jose.Marquez@pgn.com>
Sent: Monday, February 3, 2020 9:46 AM
To: Joy Chang; d5b@nwnatural.com; r2g@nwnatural.com; Hap English; Travis Smallwood; humphreysj@CleanWaterServices.org; spieringm@CleanWaterServices.org; Kevin_Rolph@kindermorgan.com; raindrops2refuge@gmail.com; Larry_Klimek@fws.gov; mwerner@gwrr.com; jlclark@bpa.gov; jerose@sherwood.k12.or.us; pjohanson@sherwood.k12.or.us; tumpj@trimet.org; baldwinb@trimet.org; DevelopmentReview@trimet.org; michaela.skiles@oregonmetro.gov; landusenotifications@oregonmetro.gov; kurt.A.MOHS@odot.state.or.us; Jill.M.HENDRICKSON@odot.state.or.us; ODOT_R1_DevRev@odot.state.or.us; Naomi_Vogel@co.washington.or.us; stephen_roberts@co.washington.or.us; Theresa_Cherniak@co.washington.or.us; Tom Mooney; Bob Galati; Brad Crawford; Richard Sattler; Jason Waters; Craig Christensen; Craig Sheldon; Jo Guediri; Andrew Stirling; Colleen Resch; Scott McKie; Jeff Groth; Jon Carlson; hoon.choe@USPS.gov; dkampfer@wm.com; Eric Rutledge
Subject: RE: Request for Comments - Reserve at Cedar Creek Subdivision SUB 19-02

Joy,

We have primary services on the other west side of SW Brookman Rd that could serve the subdivision. .

Thank you.

Jose Marquez | Service & Design Project Manager
Portland General Electric
2213 SW 153rd Drive | Beaverton | OR | 97003
503-672-5452 | Jose.Marquez@pgn.com

From: Joy Chang <ChangJ@SherwoodOregon.gov>
Sent: Tuesday, January 21, 2020 3:19 PM
To: d5b@nwnatural.com; r2g@nwnatural.com; Hap English <Henry.English@pgn.com>; Travis Smallwood <Travis.Smallwood@pgn.com>; Jose Marquez <Jose.Marquez@pgn.com>; humphreysj@CleanWaterServices.org; spieringm@CleanWaterServices.org; Kevin_Rolph@kindermorgan.com; raindrops2refuge@gmail.com; Larry_Klimek@fws.gov; mwerner@gwrr.com; jlclark@bpa.gov; jerose@sherwood.k12.or.us; pjohanson@sherwood.k12.or.us; tumpj@trimet.org; baldwinb@trimet.org; DevelopmentReview@trimet.org; michaela.skiles@oregonmetro.gov; landusenotifications@oregonmetro.gov; kurt.A.MOHS@odot.state.or.us; Jill.M.HENDRICKSON@odot.state.or.us; ODOT_R1_DevRev@odot.state.or.us; Naomi_Vogel@co.washington.or.us; stephen_roberts@co.washington.or.us; Theresa_Cherniak@co.washington.or.us; Tom Mooney <thomas.mooney@tvfr.com>; Bob Galati <GalatiB@SherwoodOregon.gov>; Brad Crawford <CrawfordB@SherwoodOregon.gov>; Richard Sattler <SattlerR@SherwoodOregon.gov>; Jason Waters <WatersJ@SherwoodOregon.gov>; Craig Christensen <ChristensenC@SherwoodOregon.gov>; Craig Sheldon <SheldonC@SherwoodOregon.gov>; Jo Guediri <GuediriJ@sherwoodoregon.gov>; Andrew Stirling <StirlingA@SherwoodOregon.gov>; Colleen Resch <ReschC@SherwoodOregon.gov>; Scott McKie <McKieS@SherwoodOregon.gov>; Jeff Groth <GrothJ@SherwoodOregon.gov>; Jon Carlson

Exhibit J

From: Clark,James L (BPA) - TERR-CHEMAWA
To: Joy Chang
Subject: RE: Request for Comments - Reserve at Cedar Creek Subdivision SUB 19-02
Date: Friday, January 24, 2020 9:29:00 AM

Hi Joy,

Thank you for the opportunity to comment on the proposed Reserve at Cedar Creek Subdivision, SUB 19-02.

This proposal does not impact BPA facilities or operations.
BPA has no further comments regarding proposed subdivision.

Sincerely,

Jim Clark
Realty Specialist | TERR Chemawa
BONNEVILLE POWER ADMINISTRATION
jlclark@bpa.gov | P 503-304-5906 | C 503-758-3883

From: Joy Chang [mailto:ChangJ@SherwoodOregon.gov]
Sent: Tuesday, January 21, 2020 3:19 PM
To: d5b@nwnatural.com; r2g@nwnatural.com; henry.english@pgn.com; Travis.Smallwood@pgn.com; Jose.Marquez@pgn.com; humphreysj@CleanWaterServices.org; spieringm@CleanWaterServices.org; Kevin_Rolph@kindermorgan.com; raindrops2refuge@gmail.com; Larry_Klimek@fws.gov; mwerner@gwrr.com; Clark,James L (BPA) - TERR-CHEMAWA; jerose@sherwood.k12.or.us; pjohanson@sherwood.k12.or.us; tumpj@trimet.org; baldwinb@trimet.org; DevelopmentReview@trimet.org; michaela.skiles@oregonmetro.gov; landusenotifications@oregonmetro.gov; kurt.A.MOHS@odot.state.or.us; Jill.M.HENDRICKSON@odot.state.or.us; ODOT_R1_DevRev@odot.state.or.us; Naomi_Vogel@co.washington.or.us; stephen_roberts@co.washington.or.us; Theresa_Cherniak@co.washington.or.us; Tom Mooney; Bob Galati; Brad Crawford; Richard Sattler; Jason Waters; Craig Christensen; Craig Sheldon; Jo Guediri; Andrew Stirling; Colleen Resch; Scott McKie; Jeff Groth; Jon Carlson; hoon.choe@USPS.gov; dkampfer@wm.com; Eric Rutledge
Subject: [EXTERNAL] Request for Comments - Reserve at Cedar Creek Subdivision SUB 19-02

Hello agency partners,

The City of Sherwood Planning Department is requesting agency comments on the following **subdivision** proposal in the City of Sherwood.

> **Proposal:** The applicant proposes to subdivide ±15.76 acre of land into 59 individual lots for single-family detached homes. The properties are zoned Medium Density Residential Low with densities between 5.6 to 8 units per net buildable acre. The proposed planned density of this development is ±7.18 units per net buildable acre. Lots north of Cedar Creek (Lots 1-44) will gain access from

new streets from the west (via Middlebrook Subdivision). Lots to the south of Cedar Creek (Lots 45-59) will gain access from SW Brookman Road. The applicant also requested a modification to the Transportation Engineering Design standards for cul-de-sac length (SW Robinhood Place).

The following chapters of the Sherwood Zoning and Community Development Code are applicable to this proposal: SZCDC Sherwood Zoning and Community Development Code: Division II: §16.12 (Residential Land Use Districts), §16.72 (Procedures for Processing Development Permits), §16.92 (Landscaping), §16.96 (On-Site Circulation), Division VI. Public Infrastructure- §16.106 (Transportation Facilities), §16.110 (Sanitary Sewers), §16.112 (Water), §16.114 (Storm), §16.116 (Fire Protection), §16.118 (Public and Private Utilities), Division VII. (Land Division), §16.120 (Subdivision), §16.128, (Land Division Design Standards), Division VIII. Environmental Resources, §16.134 (Floodplain Overlay), §16.142 (Parks, Trees, and Open Spaces), §16.144 (Wetland, Habitat and Natural Areas) and §16.156 (Energy Conservation).
Tax Map / Lots: 3S1060000100 and 3S1060000101
Location/Address: 17045 and 17117 SW Brookman Road

Detailed project information can be found online at:
https://www.sherwoodoregon.gov/planning/project/reserves-cedar-creek-subdivision

If you have comments on this proposal, please respond by **February 3, 2020** in order to be included in the staff report.

If needed, please forward this notice to the appropriate staff and let us know so we may update our notification list. Thank you in advance for your time.

Joy L Chang
Senior Planner
City of Sherwood
22560 SW Pine St. Sherwood, OR 97140
O:503.625.4214 F:503-625-0629
www.sherwoodoregon.gov
changj@sherwoodoregon.gov