



M. BARBARA CARTMILL
DIRECTOR

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

Memorandum

DEVELOPMENT SERVICES BUILDING

150 BEAVERCREEK ROAD | OREGON CITY, OR 97045

TO: Tony Doran, City of Tualatin

FROM: Clackamas County Traffic Engineering and Development Review,
Robert Hixson *Robert Hixson*

DATE: October 1, 2015

RE: SB15-0002, Sagert Farms subdivision
Located near the southeasterly corner of Borland Road and 65th Avenue

Traffic Engineering and Development Review staff have visited the site and reviewed the submitted materials. We have the following comments:

Facts and Findings:

1. Following review of the submitted materials, Engineering staff are generally in agreement with the details illustrated on the plan set (dated 8-11-15) for improvements to Borland Road and 65th Avenue (easterly half) which are under the jurisdiction of Clackamas County.
2. On sheet C211, Engineering staff recommends that the applicant maximize the sidewalk width within the existing right-of-way of 65th Avenue at the northeast corner of 65th Avenue and Sagert Street.
3. On Sheet C220, Engineering staff recommends that the six-foot wide sidewalk along the Borland Road frontage be carried through the southerly curb ramps. Southerly from the southerly curb ramps, the sidewalk may transition to a five-foot width.
4. Two Design Modifications are included in the submitted materials. Clackamas County hereby approves the two Design Modification requests. Clackamas County will allow the proposed intersection of a new local street (SW 61st Terrace) with Borland Road. In addition, Clackamas County will allow the proposed modification request related to sidewalk width on 65th Avenue at the northeasterly corner of 65th Avenue and Sagert Street due to the existing constraints which do not allow for a wider sidewalk.
5. Structural sections for roadway improvements to Borland Road and the portion of 65th Avenue under County jurisdiction shall comply with the requirements of Roadway Standards Drawing C100 for arterial streets, or City requirements if the City structural section improvement requires a more substantial structural section than the County's.

6. The new local street intersecting Borland Road, SW 61st Terrace, shall align with an existing hospital driveway located on the northerly side of Borland Road as illustrated on the submitted 8-11-15 plan set.
7. Borland Road travel lane widths, turn lane widths, and bike lane widths, shall be as illustrated on sheet C220, which is dated 8-11-15. Some striping modifications will be required and will be more specifically identified when Clackamas County performs a plan review of Borland Road striping during a plan review phase following approval of the subdivision.
8. Signing and striping plans for Borland Road and 65th Avenue shall be provided to Clackamas County for review and approval as part of a plan set submittal in anticipation of issuance of a Development Permit.
9. A Development Permit from Clackamas County will be required prior to initiation of construction of improvements within the Borland Road right-of-way and the portion of the 65th Avenue right-of-way under County jurisdiction.
10. The applicant shall provide adequate intersection sight distances of 445 feet both easterly and westerly along Borland Road at the intersection of SW 61st Terrace and Borland Road. Intersection sight distances shall be measured in accordance with Clackamas County Roadway Standards requirements.
11. The proposed right-of-way dedication along the Borland Road frontage is acceptable to Clackamas County.
12. Following completion of the construction of improvements, the applicant shall provide paper copies of AS-BUILT plans to Clackamas County for Borland Road right-of-way improvements and 65th Avenue right-of-way improvements. The AS-BUILT plans shall be drawn on full size plan sheets with all features drawn to scale and shall be signed and stamped by a Professional Engineer registered in the State of Oregon.
13. The use of public rights-of-way for construction vehicle and materials staging is not authorized by the Roadway Standards and poses a potentially deleterious effect of the proposed use, because it contributes to congestion, reduces sight distance, and occupies shoulders intended for emergencies and other purposes. To protect the public from such effects, the applicant shall be required to submit a construction vehicle management plan for review and approval by the County DTD, Construction and Development Section, before the County issues a Development Permit. This may be accomplished with adequate notes on the plans indicating that no material or vehicle staging will occur within the right-of-way.

Development Engineering recommended conditions of approval:

- 1) All frontage improvements in Clackamas County right-of-way shall be in compliance with *Clackamas County Roadway Standards* unless the County formally agrees in writing to an alternate standard, possibly a City standard.
- 2) The applicant shall obtain a Development Permit from Clackamas County Department of Transportation and Development prior to the initiation of any construction activities associated with the project.
- 3) The applicant shall design and construct improvements to Borland Road and 65th Avenue along the entire site frontages of the subject property in accordance with the 8-11-15 plan set.
- 4) Structural section for Borland Road or 65th Avenue improvements shall consist of seven and one-half inches of Level 2 Hot Mix Asphalt Concrete (HMAC), Performance Grade (PG) 70-22, ½" dense top lift over ¾" dense lower lift or lifts, placed in two and one-half inch thick lifts, over four inches of ¾"-0 aggregate leveling course, over 10 inches of 1-½"-0 aggregate base course, over geotextile fabric, over compacted undisturbed subgrade, or an alternate approved by County Engineering staff.
- 5) All curbs shall typically be type "C", or curb and gutter if curb line slope is less than one percent, if they carry, direct or channel surface water.
- 6) The applicant shall provide and maintain adequate intersection sight distances at the SW 61st Terrace intersection with Borland Road. Adequate intersection sight distance for drivers turning left into the site shall also be provided and maintained. In addition, no plantings at maturity, retaining walls, embankments, fences or any other objects shall be allowed to obstruct minimum sight distance requirements.
Plans submitted in anticipation of issuance of a Development Permit shall include an exhibit illustrating sight lines for the intersection to insure sight lines are not obstructed by street trees or any other objects along the southerly side of Borland Road. Minimum intersection sight distances, at the intersection shall be 445 feet, both easterly and westerly along Borland Road, measured 14.5 feet back from the edge of the travel lane.
- 7) Applicant shall comply with County Roadway Standards clear zone requirements in accordance with Roadway Standards section 245.
- 8) Prior to the initiation of construction activities, the applicant shall submit to Clackamas County Engineering Office:
 - a) A set of street improvement construction plans for Borland Road and 65th Avenue, including a striping and signing plan for Borland Road and 65th Avenue, for review, in conformance with *Clackamas County Roadway Standards* Section 140, to Deana Mulder in Clackamas County's Engineering Office and obtain written approval, in the form of a Development Permit.

- i) The permit will be for road, curb, sidewalk, drainage, and other street improvements.
 - ii) A fee is required for the permit and will be calculated according to the current fee structure in place at the time of the Development Permit application.
 - iii) The applicant shall have an Engineer, registered in the state of Oregon, design and stamp construction plans for all required improvements, or provide alternative plans acceptable to the Engineering Division.
- 9) Following completion of the construction of improvements, the applicant shall provide paper copies of AS-BUILT plans to Clackamas County for Borland Road right-of-way improvements and 65th Avenue right-of-way improvements. The AS-BUILT plans shall be drawn on full size plan sheets with all features drawn to scale and shall be signed and stamped by a Professional Engineer registered in the State of Oregon.

MEMORANDUM

Date: September 30, 2015
To: Tony Doran, Engineering Associate, City of Tualatin
From: Jackie Sue Humphreys, Clean Water Services (the District)
Subject: Sagert Farms Subdivision, SB15-0002, 21E30B 00600

CITY OF TUALATIN
RECEIVED
OCT 05 2015
ENGINEERING &
BUILDING DEPARTMENT

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

PRIOR TO ANY WORK ON THE SITE AND PLAT RECORDING

A Clean Water Services (the District) Storm Water Connection Permit Authorization must be obtained prior to plat approval and recordation. Application for the District's Permit Authorization must be in accordance with the requirements of the Design and Construction Standards, Resolution and Order No. 07-20, (or current R&O in effect at time of Engineering plan submittal), and is to include:

- a. Detailed plans prepared in accordance with Chapter 2, Section 2.04.2.b-1.
- 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.
- 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 07-20, Section 4.05.5, Table 4-1. Access shall be provided for maintenance of facility per R&O 07-20, Section 4.02.4.

- 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. Site contains a "Sensitive Area." Applicant shall comply with the conditions as set forth in the Service Provider Letter No. 15-000154, dated May 21, 2015.
- i. Developer shall 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. 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.
- 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 the District's approval of storm or sanitary sewer compliance to the NPDES permit held by the District. The District, prior to issuance of any connection permits, must approve final construction plans and drainage calculations.



**Tualatin Valley
Fire & Rescue**

September 18, 2015

City of Tualatin
Tony Doran – Engineering Associate
18880 SW Martinazzi Ave.
Tualatin, OR 97062

Re: SB15-0002, Sagert Farms

Tax Lot ID#'s: 21E30B 00300 & 21E30B 00600

Dear Tony,

Thank you for the opportunity to review the proposed site plan surrounding the above named development project. Tualatin Valley Fire & Rescue endorses 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. (OFC 503.1.1))
2. **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)
3. **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 Code Official), measured in a straight line between accesses. (OFC D104.3) Exception: Buildings equipped throughout with an approved automatic fire sprinkler system (the approval of this alternate method of construction shall be accomplished in accordance with the provisions of ORS 455.610(5).
4. **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)
5. **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

6. **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)

7. **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)

8. **ACCESS ROAD GRADE:** Fire apparatus access roadway grades shall not exceed 12%. When fire sprinklers* are installed, a maximum grade of 15% will be allowed.

0-12%	Allowed
13-15%	Special consideration with submission of written Alternate Methods and Materials request. Ex: Automatic fire sprinkler (13-D) system* in lieu of grade.
16-18%	Special consideration on a case by case basis with submission of written Alternate Methods and Materials request Ex: Automatic fire sprinkler (13-D) system* plus additional engineering controls in lieu of grade.
Greater than 18%	Not allowed**

*The approval of fire sprinklers as an alternate shall be accomplished in accordance with the provisions of ORS 455.610(5) and OAR 918-480-0100 and installed per section 903.3.1.1, 903.3.1.2, or 903.3.1.3 of the Oregon Fire Code (OFC 503.2.7 & D103.2)

** See Forest Dwelling Access section for exceptions.

9. **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), or two 10 foot sections with a center post or island.
 2. Gates shall be set back at minimum of 30 feet from the intersecting roadway or as approved.
 3. Electric gates shall be equipped with a means for operation by fire department personnel
 4. Electric automatic gates shall comply with ASTM F 2200 and UL 325.

10. **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)

11. **TRAFFIC CALMING DEVICES:** Shall be prohibited on fire access routes unless approved by the Fire Code Official. See Application Guide Appendix A for further information. (OFC 503.4.1).

FIREFIGHTING WATER SUPPLIES:

12. **MUNICIPAL FIREFIGHTING WATER SUPPLY EXCEPTIONS:** The requirements for firefighting water supplies may be modified as approved by the fire code official where any of the following apply: (OFC 507.5.1 Exceptions)
1. Buildings are equipped throughout with an approved automatic fire sprinkler system (the approval of this alternate method of construction shall be accomplished in accordance with the provisions of ORS 455.610(5)).
 2. There are not more than three Group R-3 or Group U occupancies.

13. **SINGLE FAMILY DWELLINGS - REQUIRED FIRE FLOW:** 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)

14. **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)

FIRE HYDRANTS:

15. **FIRE HYDRANTS – ONE- AND TWO-FAMILY DWELLINGS:** Where a 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)
16. **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 code official. (OFC C102.1)
17. **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)
18. **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)

If you have questions or need further clarification, please feel free to contact me at (503) 649-8577.

Sincerely,



Ty Darby
Deputy Fire Marshal II

Cc: file



WASHINGTON COUNTY, OREGON

Department of Land Use and Transportation, Operations & Maintenance Division
1400 SW Walnut Street, MS 51, Hillsboro, Oregon 97123-5625
(503) 846-7623 · FAX: (503) 846-7620

October 8, 2015

Tony Doran
City of Tualatin
Engineering Division
22560 SW Pine Street
Sherwood, OR 97140
No. of pages: 4 (via Email)

RE: **Sagert Farms Subdivision**
City File Number: **SB15-0002**
Tax Map and Lot Number: **2SE30B0 300 & 600**
Location: **20130 SW 65th Avenue**

Washington County Department of Land Use and Transportation has reviewed the proposed development application to divide the subject tax lots into 79 single-family lots. The lots will have access to SW Borland Road via SW 61st Terrace and SW 65th Avenue via the extension of SW Sagert Street.

COMMENTS

1. Washington County Road Design and Construction Standards require that adequate sight distance be certified at all new intersections.

The applicant will be required to provide certification from a registered professional engineer that adequate intersection sight distance exists in both directions (or can be obtained pursuant to specific improvements) at the intersection of SW 65th Avenue, SW Sagert Street and SW Sagert Street extension. (Clackamas County)
2. The statewide Transportation Planning Rule requires provision for adequate transportation facilities in order for development to occur. Accordingly, the County has classified roads and road segments within the County system based upon their function. The current Transportation Plan (regularly updated) contains adequate right-of-way, road width and lane provision standards based upon each roadway's classification. Subject

right of way is considered deficient if half-width of the existing right of way does not meet that determined necessary within the County's current transportation plan.

The applicant shall dedicate additional right-of-way that is required to construct the traffic mitigation measures indicated in the submitted Transportation Impact Analysis (Kittleson & Associates – June 2, 2015/Updated August 6, 2015) and the City of Tualatin's Notice of Decision. (Clackamas County)

3. ***Washington County Traffic Engineering staff has reviewed the Traffic Impact Analysis (Kittleson & Associates – June 2, 2015/updated August 6, 2015) submitted for this development proposal for compliance with R&O 86-95. The County concurs with the traffic mitigation measures included in the applicant's Traffic Impact Analysis (pages 30 - 32) and supplemental access report (page 19). The applicant will need to coordinate with Washington County, Clackamas County and the City of Tualatin for all permitting, inspections, and approvals.***

REQUIRED CONDITIONS OF APPROVAL

IMPORTANT:

*Road improvements required along site frontage shall apply to frontage of all land within the subject site that abuts the County roadway. **The subject site shall be considered to include:** any lot or parcel to be partitioned or otherwise subdivided (regardless of whether it contains existing structures or not); **and** any contiguous lots or parcels that constitute phases of the currently proposed development.*

*If the applicant proposes to develop the project in phases, all County-required frontage improvements must be constructed with the first phase. In addition, off-site improvements **warranted by** the first phase must also be completed with the first phase.*

I. PRIOR TO ISSUANCE OF A BUILDING PERMIT BY THE CITY OF TUALATIN:

A. The following shall be recorded with Clackamas County/City of Tualatin/Washington County, as required:

1. Additional right-of-way that will be required to meet conditions identified in the County Traffic Engineer's review of the submitted Transportation Impact Analysis (Kittleson & Associates – June 2, 2015/updated August 6, 2015). Note: Coordination with Clackamas County and the City of Tualatin will be required prior to recordation of any easement dedications (*Contact Scott Young, Washington County Survey Division: 846-7933*).

B. Submit to **Washington County** Public Assurance Staff, 503-846-3843:

1. Completed "Design Option" form.
2. **\$10,000.00** 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 course of the project, the Administration Deposit account is running low, 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. A copy of the City/County Land Use Approval (Notice of Decision), signed and dated.
 4. Three (3) sets of complete engineering plans for construction of the following public improvements:
 - a. Signalization of the intersection of SW Sagert Street, SW Sagert Street extension and SW 65th Avenue to County standards in coordination with Clackamas County and City of Tualatin.
 - b. Modification of the SW Borland Road/SW 65th Avenue signal to County standards in coordination with Clackamas County and City of Tualatin.
 - c. Connection of SW Sagert Street extension to SW Sagert Street and SW 65th Avenue.
 - d. Improvements within the right-of-way as necessary to provide adequate intersection sight distance at the intersection of SW Sagert Street, SW Sagert Street extension and SW 65th Avenue.
 - e. All improvements within SW 65th Avenue right-of-way, including required traffic mitigation measures identified in the City of Tualatin's Notice of Decision (coordinate with Clackamas County/City of Tualatin).
- C. Obtain a Washington County **Facility Permit** upon completion of the following:
1. Obtain **APPROVED** plans from the Washington County Engineering Division and provide a financial assurance for the construction of the public improvements listed in conditions **I.B.4.**

NOTE: The Public Assurance staff (503-846-3843) will send the required forms to the applicant's representative **after** submittal and approval of items listed under **I.B.**

***The Facility Permit** allows construction work within County rights-of-way and permits site access only after the developer first submits plans and obtains Washington County Engineering approval, obtains required grading and erosion control permits, and satisfies various other requirements of Washington County's Assurances Section including but not limited to execution of financial and contractual agreements. This process ensures that the developer accepts responsibility for construction of public improvements, and that improvements are closely monitored, inspected, and built to standard in a timely manner.*

Access will only be permitted under the required Washington County Facility Permit, and only following submittal and County acceptance of all materials required under the facility permit process.

II. PRIOR TO OCCUPANCY:

Obtain a Finaled Washington County **Facility Permit**, contingent upon the following:

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

Requirements identified within this letter are considered by the County to be minimum warranted improvements (and/or analyses) that are necessitated by the proposed development, therefore it is requested that they be conveyed to the applicant within the City's Approval document. Please send a copy of the subsequent Final City Notice of Decision and any appeal information to the County.

Thank you for the opportunity to comment. If you have any questions, please contact me at 503-846-7639.

Naomi Vogel
Associate Planner

Cc: Traffic Services Section
Paul Seitz, Assurances Section
Transportation File