

NOTICE OF TYPE II DECISION
SITE DEVELOPMENT REVIEW (SDR) 2004-00004
CANTERBURY WOODS CONDOMINIUMS



120 DAYS = 10/22/2004

SECTION I. APPLICATION SUMMARY

FILE NAME: CANTERBURY WOODS CONDOMINIUMS
CASE NOS.: **Site Development Review (SDR)** **SDR2004-00004**
Sensitive Lands Review (SLR) SLR2004-00011
Adjustment (VAR) VAR2004-00044

PROPOSAL: The applicant is requesting Site Development and Sensitive Lands Review for construction of a 139-unit attached condominium development in 32 buildings. The property is 11.66 acres in size. Sensitive lands review is necessary to minimize impacts to steep slopes that are identified on the property. The applicant is also seeking approval of an adjustment to allow the sidewalk and planter strip, presently each 4 feet wide, to remain.

APPLICANT: Alpha Engineering, Inc. **OWNER:** Canterbury Crest Nursing Services
Attn: Tom McConnell 10575 SW Canterbury Lane
9600 SW Oak Street, Suite 230 Tigard, OR 97224
Portland, OR 97223

LOCATION: 10575 SW Canterbury Lane; WCTM 2S110AA, Tax Lots 1400 and 1500.

ZONE: R-12 Medium Density Residential. The R-12 zoning district is designed to accommodate a full range of housing types at a minimum lot size of 3,050 square feet. A wide range of civic and institutional uses are also permitted conditionally.

APPLICABLE REVIEW CRITERIA: Community Development Code Chapters 18.360, 18.370, 18.390, 18.510, 18.705, 18.715, 18.720, 18.725, 18.745, 18.755, 18.765, 18.775, 18.780, 18.790, 18.795 and 18.810.

SECTION II. DECISION

Notice is hereby given that the City of Tigard Community Development Director's designee has **APPROVED** the request for Site Development and Sensitive Lands Review subject to certain conditions of approval, and **DENIES** the Adjustment. The findings and conclusions on which the decision is based are noted in Section VII.

CONDITIONS OF APPROVAL

THE FOLLOWING CONDITIONS SHALL BE SATISFIED PRIOR TO THE ISSUANCE OF SITE PERMITS:

Submit to the Planning Division (Morgan Tracy, 503-639-4171, ext. 2428) for review and approval:

1. Prior to site work, the applicant shall revise the construction plans to indicate the interior sidewalk to be either separated from the roadway by a minimum of 3 horizontal feet, or 6 vertical inches.
2. Prior to site work, the applicant shall revise the site plan to show:
 - A. The buildings located either greater than 30 feet from the property line, or alternatively building plans that demonstrate that the portions of the buildings within 30 feet of the property line are less than 25 feet in height;
 - B. A total of 33 guest parking spaces;
 - C. Two ADA compliant spaces;
 - D. Eleven bicycle spaces distributed throughout the site with a detail of the design of the bike rack to be used; and
 - E. A standard turnaround for the section of driveway that exceeds 150 feet or alternately reconfigure this drive so that it no longer exceeds 150 feet.
3. Prior to issuance of site permits, the applicant shall submit construction plans that incorporate the recommendations for Site Preparation, Construction Methods, Trench Excavation, Structural Fill, Permanent Slopes, Retaining Structures, and Pavement.
4. Prior to site work, the applicant shall submit a revised street tree plan that uses species that are listed as appropriate on the City of Tigard's street tree planting list.
5. Prior to site work, a tree protection plan, prepared by a certified arborist shall be submitted to the City Forester for review and approval. A plan to be included with the construction documents shall indicate the location of building envelopes and protection fencing and shall take into account off-site trees that overhang into the subject property. Consideration for utility trench alignments and grading shall also be a part of the protection plan. After initial improvements are complete, protection fencing shall be re-established around the building envelopes as shown on the applicants Tree Protection Plan, see Sheet 4. Once the protection plan is approved, tree protection measures must be installed for all trees to be retained. Once installed, the City Forester must inspect the tree protection measures.
6. Prior to site work the applicant shall ensure that the following text is included in all construction documents:

"Notwithstanding any other provision of this title, any party found to be in violation of the tree removal chapter (including but not limited to removal or damage to trees not approved for removal) shall be subject to a civil penalty of up to \$500 pursuant to Chapter 1.16 of the Tigard Municipal Code and shall be required to remedy any damage caused by the violation. Such remediation shall include, but not be limited to, the following:

- A. *Replacement of unlawfully removed or damaged trees in accordance with Section 18.790.060 (D) of the Tigard Development Code; and*
- B. *Payment of an additional civil penalty representing the estimated value of any unlawfully removed or damaged tree, as determined using the most current International Society of Arboriculture's Guide for Plant Appraisal.*

Only those trees authorized for removal by the City's Casefile No. SDR2002-00012, and any trees that are exempt may be removed by the applicant. If in the process of constructing improvements, it is found that removal of a tree designated for preservation must occur, the applicant will be subject to mitigation for 100% of the caliper inches of that tree. Any trees damaged or removed without prior City authorization will constitute a violation."

Submit to the Engineering Department (Kim McMillan, 639-4171, ext. 2642) for review and approval:

7. Prior to site work, a Public Facility Improvement (PFI) permit is required for this project to cover half-street improvements and any other work in the public right-of-way (ROW). Six (6) sets of detailed public improvement plans shall be submitted for review to the Engineering Department. NOTE: these plans are in addition to any drawings required by the Building Division and should only include sheets relevant to public improvements. Public Facility Improvement (PFI) permit plans shall conform to City of Tigard Public Improvement Design Standards, which are available at City Hall and the City's web page (www.ci.tigard.or.us).
8. Prior to site work, the applicant shall ensure that the PFI permit plan submittal includes the exact legal name, address and telephone number of the individual or corporate entity who will be designated as the "Permittee", and who will provide the financial assurance for the public improvements. For example, specify if the entity is a corporation, limited partnership, LLC, etc. Also specify the state within which the entity is incorporated and provide the name of the corporate contact person. Failure to provide accurate information to the Engineering Department will delay processing of project documents.
9. Prior to site work, the applicant shall submit construction plans to the Engineering Department as a part of the Public Facility Improvement permit, indicating that they will construct the following frontage improvements along SW Canterbury Lane as a part of this project:
 - A. 5-foot concrete sidewalk with 5-foot planter strip;
 - B. street trees in the planter strip spaced per TDC requirements;
 - C. streetlight layout by applicant's engineer, to be approved by City Engineer; and
 - D. driveway apron (if applicable).
10. Prior to site work, the applicant shall obtain a permit from the State of Oregon Highway Division, to perform work within the right-of-way of Highway 99 for stormwater improvements. A copy of the permit shall be provided to the City Engineering Department.
11. Prior to site work, the applicant shall provide connection of proposed buildings to the public sanitary sewerage system. A connection permit is required to connect to the existing public sanitary sewer system.
12. Prior to site work, the applicant's design engineer shall submit revised plans and calculations that indicate the stormwater runoff from this site will be discharge to the public storm sewer in the street. These plans will include any required improvements to the downstream system.
13. Prior to site work, the applicant's design engineer shall submit documentation, for review by the City (Kim McMillan), of the downstream capacity of any existing storm facility impacted by the proposed development. The design engineer must perform an analysis of the drainage system downstream of the development to a point in the drainage system where the proposed development site constitutes 10 percent or less of the total tributary drainage volume, but in no event less than 1/4 mile.
14. Prior to site work, any extension of public water lines shall be shown on the proposed Public Facility Improvement (PFI) permit construction drawings and shall be reviewed and approved by the City's Water Department, as a part of the Engineering Department plan review. **NOTE:** An estimated 12% of the water system costs must be on deposit with the Water Department prior to approval of the PFI permit plans from the Engineering Department and construction of public water lines.
15. Prior to site work, the applicant's engineer shall provide revised plans to show the 6" line looped back to Canterbury Lane and supporting calculations for adequate fire flow. If the extension of the 6" line is inadequate to serve the site the applicant's engineer will work with the City of Tigard Water to provide an appropriately upsized line.

16. Prior to site work, the applicant shall provide designs for an on-site water quality facility as required by Clean Water Services Design and Construction Standards (adopted by Resolution and Order No. 00-7). Final plans and calculations shall be submitted to the Engineering Department (Kim McMillan) for review and approval prior to issuance of the site permit. In addition, a proposed maintenance plan shall be submitted along with the plans and calculations for review and approval.
17. Prior to site work, an erosion control plan shall be provided as part of the Public Facility Improvement (PFI) permit drawings. The plan shall conform to the "Erosion Prevention and Sediment Control Design and Planning Manual, February 2003 edition." and the standards found in Chapter 18.745.060.
18. Prior to site work, the applicant shall obtain a 1200-C General Permit issued by the City of Tigard pursuant to ORS 468.740 and the Federal Clean Water Act.
19. Prior to site work, the applicant shall submit a building layout map to Shirley Treat, Engineering Department. The City will then assign building numbers and the address fee will then be calculated. The fee must be paid by the applicant prior to issuance of the site permit. (STAFF CONTACT: Shirley Treat, Engineering).

**THE FOLLOWING CONDITIONS SHALL BE SATISFIED
PRIOR TO ISSUANCE OF THE BUILDING PERMIT:**

Submit to the Planning Division (Morgan Tracy, 503-639-4171, ext. 2428) for review and approval:

20. Prior to issuance of building permits, the applicant shall submit plans showing that service facilities (gas meters, and air conditioning units) are screened from view.
21. Prior to the issuance of building permits, the applicant shall submit a site plan illustrating the locations of all service facilities and demonstrate compliance with the screening standards of Chapter 18.745 of the TDC.
22. Prior to the issuance of building permits, the applicant shall submit verification from the franchise waste hauler indicating that the location of the proposed trash enclosures meets their requirements.
23. Prior to the issuance of building permits, the applicant shall submit floor plans that demonstrate that the parking within the garages will meet the minimum size standards for full-size parking spaces.
24. Prior to the issuance of building permits, the applicant shall submit for review and approval, covenants of CC&R or deed language restricting parking on the internal street or in front of units (to be specified) with less than 18.5 feet of setback distance from the internal driveway. The language shall also note that parking in violation of this restriction is considered a violation of the land use approval subject to civil court citation, in addition to any other remedies provided by law. No parking signs shall also be posted on both sides of the internal driveway.
25. Prior to issuance of building permits, the applicant shall incorporate the recommendations of the geotechnical engineer's evaluation of the site along with any particular recommendations for footing or foundation design as appropriate.
26. Prior to issuance of building permits, the applicant shall submit a final removal and mitigation program reflective and consistent with the preliminary removal plan that shows the actual number and size of trees that were removed, and additionally includes provisions for the required mitigation. If payment in-lieu is proposed, it shall be paid prior to issuance of building permits. If trees are to be planted, a cash assurance for the value of the planting shall be required prior to building permit issuance.

27. Prior to issuance of building permits, the applicant shall record a deed restriction (either separately or as part of the CC&R's) that any tree preserved or retained in accordance with the approved tree plan may be removed only if the tree dies or is hazardous according to a certified arborist. The deed restriction may be removed or will be considered invalid if a tree preserved in accordance with this section should either die or be removed as a hazardous tree.
28. Prior to the issuance of building permits, the applicant shall provide City staff with a plan that demonstrates that the applicant is providing a minimum of 48 square feet of private open space for each unit in compliance with TDC Section 18.360.090(A)(6).
29. Prior to the issuance of building permits, the developer shall sign a copy of the City's sign compliance agreement.

Submit to the Engineering Department (Kim McMillan, 639-4171, ext. 2642) for review and approval:

30. Prior to issuance of the building permit, additional right-of-way shall be dedicated to the Public along the frontage of Canterbury Lane to increase the right-of-way to 27 feet from the centerline. The description shall be tied to the existing right-of-way centerline. The dedication document shall be on City forms. Instructions are available from the Engineering Department.
31. Any necessary off-site utility easements shall be the responsibility of the applicant to obtain and shall be submitted to and accepted by the City prior to issuance of a building permit.

**THE FOLLOWING CONDITIONS SHALL BE SATISFIED
PRIOR TO A FINAL BUILDING INSPECTION:**

Submit to the Planning Division (Morgan Tracy, 503-639-4171, ext. 2428) for review and approval:

32. Prior to final building inspection, the applicant shall complete the proposed improvements in substantial conformance with the final approved plans. A member of the planning division shall conduct a walkthrough the site to ensure that this condition is met.

Submit to the Engineering Department (Kim McMillan, 639-4171, ext. 2642) for review and approval:

33. Prior to a final building inspection, the applicant shall complete the required public improvements, obtain conditional acceptance from the City, and provide a one-year maintenance assurance for said improvements.
34. Prior to a final building inspection, the applicant shall provide the City with as-built drawings of the public improvements as follows: 1) 3 mil mylar, 2) a diskette of the as-builts in "DWG" format, if available; otherwise "DXF" will be acceptable, and 3) the as-built drawings shall be tied to the City's GPS network. The applicant's engineer shall provide the City with an electronic file with points for each structure (manholes, catch basins, water valves, hydrants and other water system features) in the development, and their respective X and Y State Plane Coordinates, referenced to NAD 83 (91).
35. Prior to a final building inspection, the applicant shall demonstrate that they have entered into a maintenance agreement with Stormwater Management, or another company that demonstrates they can meet the maintenance requirements of the manufacturer, for the proposed onsite storm water treatment facility.

**THIS APPROVAL SHALL BE VALID FOR EIGHTEEN (18)
MONTHS FROM THE EFFECTIVE DATE OF THIS DECISION.**

SECTION III. BACKGROUND INFORMATION

Site History:

Staff conducted a search of City records for the subject property and found that apart from a lot line adjustment approved in September of 2001 (MIS 2001-00024) and a conditional use permit (CUP2003-00004) to use a portion of the assisted living facility for a Charter Elementary and Middle School, no other land use approvals were found for the subject property. The lot line adjustment was never recorded, and the approval has subsequently lapsed. The conditional use permit, whose approval will lapse in December of 2004, has likewise never been acted upon. Should this decision be implemented, both prior approvals will be nullified.

The property was developed prior to its incorporation into the City of Tigard. While the current group living use is permissible in the zoning district as a conditional use, no conditional use approval has been granted through the City.

Vicinity Information:

The subject site is located on the north side of SW Canterbury Lane. To the west is general commercial zoned land, along SW Pacific Highway. On the south side are rowhouse and condominiums in a similarly zoned R-12 area. To the east are single family homesites in Low-density R-3.5 zoning. To the north are apartments, also zoned R-12, with a large portion of the site bordering a finger of general commercial zoning.

Site Information and Proposal Description:

The proposed site is relatively vacant, with one large assisted living facility in the southeast section of the site. The site slopes from the southeast to the north and northwest, in areas rather steeply. There is a large number of trees on the site in a park like setting. The applicant is proposing to retain a large number of trees in open space areas around the site, and construct 139 condominiums on the remainder of the property.

SECTION IV. NEIGHBORHOOD COMMENTS

The Tigard Community Development Code requires that property owners within 500 feet of the subject site be notified of the proposal, and be given an opportunity for written comments and/or oral testimony prior to a decision being made. In addition, staff has posted a notice at the driveway to the site, visible from the street. Staff received several questions from surrounding property owners and citizens regarding the proposed design and site layout. In addition, the City received four letters from adjacent property owners.

Stephen and Jodette Bates, James and Darlene Cain, and Jerry and Ann Cox own the parcels to the northwest of the site along SW Pacific Highway. All three parties commented that existing storm drainage from the Canterbury site is a problem. They note that additional impervious areas will increase the amount of storm water runoff and exacerbate the existing problem.

RESPONSE: Engineering staff has reviewed the proposed storm drainage improvements and addressed these issues later in this decision, refer to Chapter 18.810, Streets and Utilities.

In addition, Mr. and Mrs. Cox have concerns with the location of their present driveway on SW Canterbury and the fact that the driveway entrance currently is blocked by traffic queues waiting to turn onto Pacific Highway. They note that the new condo's will add considerable traffic to this intersection, making the stacking queue longer. They suggest a new driveway access be provided on the applicant's parcel to mitigate for this impact.

RESPONSE: The current access to the Cox's property does not meet the driveway spacing standard of 18.705, as the driveway is less than 50 feet from Highway 99. The property owner has stated that it is difficult to safely make a left-turn from Canterbury Lane into the parking lot of this business. While the proposed Canterbury Woods development will add trips to this intersection there is not a requirement for them to fix the adjacent property owner's access. The adjacent

property owner has suggested that the Canterbury Woods developer provide an access easement for all three businesses located west of the project. We cannot require the developer to provide an access easement over their property to these existing businesses. We would, however, encourage the developer to discuss this option with the adjacent property owners. A new driveway located further away from Highway 99 would be safer and function better for these businesses. If the developer does work out an easement with the neighbors the City would review the driveway placement to see that it meets the standards of this section of the code. The City would also require that the existing driveway onto Canterbury Lane from these businesses be closed by removing the driveway and constructing curb & sidewalk in its place.

Lastly, Derek Sprague provided his concerns with regard to reduction to property values and loss of privacy from the removal of trees on the site. He is also concerned with erosion potential during construction and excavation of the hillside. He also inquired whether the units would be owner occupied or rented.

RESPONSE: There was no basis provided for or evidence included to show that property values would decline as a result of this project, however, property values are a result of many factors influencing supply and demand. As the supply of homes increases in an area, the demand for homes for sale may temporarily decrease. However, once those homes are all occupied, then the demand will be equalized again. This does not mean values will either increase nor decrease. It may mean that a property is on the market for a longer period, or that fewer offers for a house are received. With regard to demand, one must consider all the variable factors that buyers consider when looking for a house. That is why property values are not a good measure for land use approvals, and why it is not a criterion within the development code. Recognizing the concern however, the development code does incorporate certain protections for existing development through zoning restrictions, buffer and landscape requirements, and other development standards. Compliance with those standards is addressed in this decision.

Trees will be removed from this site, however, the project is retaining between 68 to 72 percent of the trees on site, and the large grove of firs near Mr. Sprague's property are among those to be retained. This will also help control erosion potential on the hillside, when implemented in conjunction with an approved erosion control plan, reviewed with the final construction documents.

As far as the ownership status of the proposed units, the City's land use process cannot determine who or how the units will be occupied. Because the applicant is proposing condominiums versus an apartment complex, doesn't affect the fact that the City perceives both to be "multi-family" projects. However, condominiums will allow the individual units to be conveyed for ownership. Whether the owner decides to rent or occupy the unit is up to each owner.

SECTION V. DECISION MAKING PROCEDURES, PERMITS AND USE

Use Classification: Section 18.130.020 **Lists the Use Categories.**

The applicant is seeking approval to construct 139-condominium units in 32 buildings. Attached dwelling units and multi-family style development are outright permitted uses in the R-12 zoning classification.

Summary Land Use Permits: Chapter 18.310 **Defines the decision-making type to which the land-use application is assigned.**

The application is subject to Site Development Review for the use, adjustments to allow the continued use of the sidewalk and planter strip, both presently 1 foot narrower than current standard, and Sensitive Lands Review for proposed construction within a small area of steep slopes. All four applications are subject to administrative review through a Type II review process.

Decision Making Procedures: Chapter 18.390
Describes the decision-making procedures.

Type II procedures apply to quasi-judicial permits and actions that contain some discretionary criteria. Type II actions are decided by the Director with public notice and an opportunity for a hearing. If any party with standing appeals a Director's Type II decision, the appeal of such decision will be heard by the Tigard Hearings Officer;

SECTION VI. SUMMARY OF APPLICABLE REVIEW CRITERIA

The proposal's consistency with these Code Chapters is reviewed in the following sections:

- A. Zoning Districts
 - 18.510 Residential Zoning Districts
- B. Applicable Development Code Standards
 - 18.370 Variances and Adjustments
 - 18.705 Access Egress and Circulation
 - 18.715 Density Computations
 - 18.720 Design Compatibility Standards
 - 18.725 Environmental Performance Standards
 - 18.745 Landscaping and Screening
 - 18.755 Mixed Solid Waste and Recyclable Storage
 - 18.765 Off-Street parking and loading requirements
 - 18.775 Sensitive Lands
 - 18.780 Signs
 - 18.790 Tree Removal
 - 18.795 Visual Clearance
- C. Specific SDR Approval Criteria
 - 18.360
- D. Street and Utility Improvement Standards
 - 18.810
- E. Decision Making Procedures
 - 18.390 Impact Study

SECTION VII. APPLICABLE DEVELOPMENT CODE STANDARDS

ZONING DISTRICTS

Residential Zoning District: Section 18.510.020
Lists the description of the Residential Zoning Districts.

The site is located in the R-12 zoning district. The proposed use, condominiums, is outright permitted in the zone. Condominiums are a type of multi-family development.

Development Standards:
Section 18.510.050 States that Development standards in Residential zoning districts are contained in Table 18.510.2 below:

**TABLE 18.510.2
DEVELOPMENT STANDARDS IN RESIDENTIAL ZONES**

STANDARD	R-12	PROPOSED
Minimum Lot Size - Detached unit - Boarding, lodging, rooming house	3,050 S.F. per unit	3,627 S.F. per unit based on overall site size
Average Lot Width	None	447 ft.
Minimum Setbacks - Front yard - Side facing street on corner & through lots - Side yard - Side or rear yard abutting more restrictive zoning district - Rear yard - Distance between front of garage & property line abutting a public or private street.	20 ft 20 ft 10 ft 30 ft 20 ft 20 ft	20 ft N/A 61.9/25.4 ft 80 ft. 80 ft. -
Maximum Height	35 ft	32 ft
Maximum Site Coverage [1]	80%	49.8%
Minimum Landscape Requirement	20%	50.2%

[1] Includes all buildings and impervious area

*Applicant has requested an adjustment to the front yard, and a variance to the side yard setbacks.

Based on the analysis above, the underlying zone's development standards are met. Since no individual lots will be created in this multi family development, it should be noted that the interior access drive is considered a driveway, and not a private street as defined by the development code. As such, the approaches to the individual units need not be spaced 20 feet from the driveway, they are only subject to a 20 foot setback from SW Canterbury. Nevertheless, several units provide insufficient distance in front of the garage to park vehicles without encroaching into the internal driveway. This will be addressed further in 18.765.

FINDING: Based on findings, conditions, and the adjustments that are discussed later in this decision, the development standards in the R-12 zone can be satisfied.

B. APPLICABLE DEVELOPMENT CODE STANDARDS

Variances and Adjustments (18.370):

Adjustments for street improvement requirements (Chapter 18.810). By means of a Type II procedure, as governed by Section 18.390.040, the Director shall approve, approve with conditions, or deny a request for an adjustment to the street improvement requirements, based on findings that the following criterion is satisfied: **Strict application of the standards will result in an unacceptably adverse impact on existing development, on the proposed development, or on natural features such as wetlands, steep slopes or existing mature trees. In approving an adjustment to the standards, the Director shall determine that the potential adverse impacts exceed the public benefits of strict application of the standards.**

The applicant is requesting an adjustment to the street improvement standards to allow the existing 4-foot-wide sidewalk and 4-foot-wide planter strip to continue to be utilized where a 5-foot sidewalk and 5-foot planter strip are required.

The criteria require the applicant show that the adverse impacts to the development or natural features exceeds the public benefit of complying with the current standard. The applicant argues that full compliance with the standards would require a reduction in the pavement width and relocation of the curb, in addition to reconstructing the sidewalk. The standard requires 16 feet of pavement from centerline, 6-inch curb, 5-foot-wide planter, and 5-foot sidewalk, with a 6-inch space behind the curb. The applicant has not furnished cross sections of SW Canterbury to confirm whether the pavement section is adequate. Nevertheless, as it stands with a 4-foot-wide planter and 4-foot sidewalk in the existing right-of-way, since the applicant is required to dedicate an additional 2 feet of right-of-way, it appears that this is sufficient room to add a foot to the sidewalk and planter strip widths, and not modify the curb and pavement. Staff acknowledges that by not granting the adjustment, the project will be responsible for entirely reconstructing the sidewalk. However, this is a matter of cost, not feasibility.

FINDING: Based on the proximity to a transit route (Pacific Highway), the level of unmitigated impact from the proposed 139 units, the fact that this application is a major intensification of the use of the site, and development projects are required to meet standards where feasible, staff finds that the public benefit of strict compliance with this standard far outweighs the cost involved with reconstructing this sidewalk. Based on the analysis above, the adjustment criteria have not been satisfied. The requested adjustment is denied.

The Site development Review approval standards require that a development proposal be found to be consistent with the various standards of the Community Development Code. The applicable criteria in this case are Chapters 18.360, 18.390, 18.520, 18.705, 18.745, 18.755, 18.765, 18.775, 18.780, 18.790, 18.795, and 18.810. The proposal's consistency with these Code Chapters is reviewed in the following sections.

Access, Egress and Circulation (18.705):

Required walkway location. On-site pedestrian walkways shall comply with the following standards:

1. Walkways shall extend from the ground floor entrances or from the ground floor landing of stairs, ramps, or elevators of all commercial, institutional, and industrial uses, to the streets which provide the required access and egress. Walkways shall provide convenient connections between buildings in multi-building commercial, institutional, and industrial complexes. Unless impractical, walkways shall be constructed between new and existing developments and neighboring developments;

This is neither a commercial, institutional, and industrial use, therefore this standard is not applicable.

2. Within all attached housing (except two-family dwellings) and multi-family developments, each residential dwelling shall be connected by walkway to the vehicular parking area, and common open space and recreation facilities;

Each residential dwelling is connected by a walkway to the internal sidewalk system, which in turn connects to the parking areas, street, and common open space.

3. Wherever required walkways cross vehicle access driveways or parking lots, such crossings shall be designed and located for pedestrian safety. Required walkways shall be physically separated from motor vehicle traffic and parking by either a minimum 6-inch vertical separation (curbed) or a minimum 3-foot horizontal separation, except that pedestrian crossings of traffic aisles are permitted for distances no greater than 36 feet if appropriate landscaping, pavement markings, or contrasting pavement materials are used. Walkways shall be a minimum of four feet in width, exclusive of vehicle overhangs and obstructions such as mailboxes, benches, bicycle racks, and sign posts, and shall be in compliance with ADA standards;

The applicant has proposed an internal sidewalk system, five feet in width to address the occasional obstruction such as street signs, and mailboxes. However, the plans show this sidewalk to be flush with and abutting the pavement. The applicant will either need to provide a 3 foot minimum horizontal separation or a 6 inch raised path

4. Required walkways shall be paved with hard surfaced materials such as concrete, asphalt, stone, brick, etc. Walkways may be required to be lighted and/or signed as needed for safety purposes. Soft-surfaced public use pathways may be provided only if such pathways are provided in addition to required pathways.

The proposed walkway will be concrete, except for the portion of the walkways that traverse the common open space, which are in addition to the required path. The applicant has shown that the interior driveway will be lit with pole mounted lights as shown on Sheet E1. The applicant has not indicated any pathway lighting for the soft surface path; however, such lighting is not required. The applicant may opt to light the soft surfaced path, but if so chosen, shall utilize low light mounts (<8') with appropriate shielding to direct light at the ground and away from adjacent properties.

FINDING: The walkway requirements are not satisfied.

Minimum access requirements for residential use: Section 18.705.030H.

Vehicular access and egress for single-family, duplex or attached single-family dwelling units on individual lots and multi-family residential uses shall not be less than as provided in Table 18.705.1 and Table 18.705.2.

**TABLE 18.705.1
VEHICULAR ACCESS/EGRESS REQUIREMENTS:
RESIDENTIAL USE (6 OR FEWER UNITS)**

Dwelling Units/Lots	Minimum Number of Driveways Required	Minimum Access Width	Minimum Pavement Width
50-100	2	30 feet	24 feet Curbs and 5 foot sidewalk required

The applicant has proposed a looped roadway system 24 feet in width with a 5 foot wide sidewalk along one side. The loop provides 2 access points to SW Canterbury.

FINDING: As proposed, the application complies with the minimum access requirements for serving 139 units.

Vehicular access to multi-family structures shall be brought to within 50 feet of the ground floor entrance or the ground floor landing of a stairway, ramp, or elevator leading to the dwelling units.

Vehicle access is brought directly to each unit as each unit is served by a garage. This criterion is satisfied.

Private residential access drives shall be provided and maintained in accordance with the provisions of the Uniform Fire Code.

The individual homeowners will maintain the access drives once the property is developed and sold. The Tualatin Valley Fire and Rescue district has reviewed the proposal and the comments have been incorporated where necessary. This criterion is satisfied.

Access drives in excess of 150 feet in length shall be provided with approved provisions for the turning around of fire apparatus by one of the following:

- ♦ **A circular, paved surface having a minimum turn radius measured from center point to outside edge of 35 feet;**
- ♦ **A hammerhead-configured, paved surface with each leg of the hammerhead having a minimum depth of 40 feet and a minimum width of 20 feet;**
- ♦ **The maximum cross slope of a required turnaround is 5%.**

The access drive is greater than 150 feet deep, however, the applicant has designed the access with a looped system and T-intersections that exceeds the standards of the turnaround. The T-intersection will serve the same purpose of the hammerhead. There is one driveway stub that is not furnished with a turnaround and is 183 feet long on the northeast side of the project. A turnaround will be required for this section of driveway, or the applicant will be required to revise the plan to shorten this leg to less than 150 feet. This criterion has not been met.

Vehicle turnouts, (providing a minimum total driveway width of 24 feet for a distance of at least 30 feet), may be required so as to reduce the need for excessive vehicular backing motions in situations where two vehicles traveling in opposite directions meet on driveways in excess of 200 feet in length.

The vehicular access is 24 feet in width to allow for two way traffic on the site. This standard is not applicable.

Where permitted, minimum width for driveway approaches to arterials or collector streets shall be no less than 20 feet so as to avoid traffic turning from the street having to wait for traffic exiting the site.

There are no driveway approaches proposed to any arterials or collector streets. Canterbury is a neighborhood route. This criterion is satisfied.

Section 18.705.030.H.1 states that an access report shall be submitted with all new development proposals which verifies design of driveways and streets are safe by meeting adequate stacking needs, sight distance and deceleration standards as set by ODOT, Washington County, the City and AASHTO.

Kittelson & Associates, Inc. submitted a Traffic Impact Analysis for the proposed project. This report was prepared in April 2004. The report indicates that there is adequate sight distance available at both of the proposed driveway locations.

Section 18.705.030.H.2 states that driveways shall not be permitted to be placed in the influence area of collector or arterial street intersections. Influence area of intersections is that area where queues of traffic commonly form on approach to an intersection. The minimum driveway setback from a collector or arterial street intersection shall be 150 feet, measured from the right-of-way line of the intersecting street to the throat of the proposed driveway. The setback may be greater depending upon the influence area, as determined from City Engineer review of a traffic impact report submitted by the applicant's traffic engineer. In a case where a project has less than 150 feet of street frontage, the applicant must explore any option for shared access with the adjacent parcel. If shared access is not possible or practical, the driveway shall be placed as far from the intersection as possible.

Highway 99 is classified as an Arterial. The proposed driveways are not within 150 feet of the intersection of Canterbury Lane and Highway 99, thereby meeting this criterion. The applicant has also aligned their east driveway with the existing driveway serving a residential complex on the south side of Canterbury Lane.

An adjacent property owner has submitted a letter expressing concerns about access to their property. Their current access does not meet this standard as the driveway is less than 50 feet from Highway 99. The property owner has stated that it is difficult to safely make a left-turn from Canterbury Lane into the parking lot of this business. While the proposed Canterbury Woods development will add trips to this intersection there is not a requirement for them to fix the adjacent property owner's access. The adjacent property owner has suggested that the Canterbury Woods developer provide an access easement for all three businesses located west of the project. We cannot require the developer to provide an access easement over their property to these existing businesses. We would, however, encourage the developer to discuss this option with the adjacent property owners. A new driveway located further away from Highway 99 would be safer and function better for these businesses. If the developer does work out an easement with the neighbors the City would review the driveway placement to see that it meets the standards of this section of the code. The City would also require that the existing driveway onto Canterbury Lane from these businesses be closed by removing the driveway and constructing curb & sidewalk in its place.

Section 18.705.030.H.3 and 4 states that the minimum spacing of driveways and streets along a collector shall be 200 feet. The minimum spacing of driveways and streets along an arterial shall be 600 feet. The minimum spacing of local streets along a local street shall be 125 feet.

This criterion does not apply.

FINDING: The proposed development does not comply with the access turnaround requirement.

CONDITIONS:

- ◆ Prior to site work, the applicant shall revise the site plan to include a standard turnaround for the section of driveway that exceeds 150 feet, or alternately reconfigure this drive so that it no longer exceeds 150 feet.
- ◆ Prior to site work, the applicant shall revise the construction plans to indicate the interior sidewalk to be either separated from the roadway by a minimum of 3 horizontal feet, or 6 vertical inches.
- ◆ The applicant may opt to light the soft surfaced path, but if so chosen, shall utilize low light mounts (<8') with appropriate shielding to direct light at the ground and away from adjacent properties.

Density Computations (18.715)

Density Calculation: 18.715.020

Definition of net development area.

Net development area, in acres, shall be determined by subtracting the following land area(s) from the gross acres, which is all of the land included in the legal description of the property to be developed:

- ◆ All sensitive land areas: a. Land within the 100-year floodplain; b. Land or slopes exceeding 25%; c. Drainage ways; and d. Wetlands.
- ◆ All land dedicated to the public for park purposes;
- ◆ All land dedicated for public rights-of-way. When actual information is not available, the following formulas may be used: Single-family development: allocate 20% of gross acreage; Multi-family development: allocate 15% of gross acreage.
- ◆ All land proposed for private streets; and
- ◆ A lot of at least the size required by the applicable base zoning district, if an existing dwelling is to remain on the site.

Calculating maximum number of residential units.

To calculate the maximum number of residential units per net acre, divide the number of square feet in the net acres by the minimum number of square feet required for each lot in the applicable zoning district.

Gross lot area	507,909 square feet
ROW/Street dedication	900 square feet
Private access drive	54,800 square feet
Sensitive Lands (steep slopes)	1,500 square feet
NET DEVELOPABLE AREA	450,709 square feet

To calculate the maximum allowed density, net developable area is divided by the minimum allowed square footage within the zone, as follows:

R-12 zone
 $450,709 \div 3,050 = 147$ dwelling units

Calculating minimum number of residential units.

As required by Section 18.510.040, the minimum number of residential units per net acre shall be calculated by multiplying the maximum number of units determined in Subsection B above by 80% (0.8).

The minimum required density is determined by the following calculation:

$147 \times 0.80 = 117$ units

FINDING: The applicant has proposed 139 units in compliance with the minimum and maximum density requirements.

The units per acre calculated by subtracting sensitive lands from the gross acres may be transferred to the remaining buildable land areas subject to the following limitations:

The number of units which can be transferred is limited to the number of units which would have been allowed on 25 percent of the unbuildable area if not for these regulations

No transfers are requested. These criteria are not applicable.

Design Compatibility Standards (18.720):

These provisions apply to all multi-family and attached single-family residential projects in zoning districts R-4.5 through R-40 that abut property zoned for single-family residential development.

The subject site abuts R-3.5 zoning to the east, therefore, the standards in this particular chapter are applicable to this proposal.

A. Density transition. When a multi-family or attached single-family project abuts property zoned for detached single-family, the following design standards shall apply:

1. Building height shall not exceed two stories or 25 feet within 30 feet of the property line or three stories or 35 feet within 50 feet of the property line;

The applicant has not addressed this standard or demonstrated that compliance will be attained with the subject application. This standard is not met. From the elevations submitted, it appears that at least 5 units will not meet this standard.

2. Building planes for multi-family dwellings within 50 feet of the common property line(s) and abutting public rights-of-way shall be subject to the following standards:

a. No building plane that faces the common property line shall exceed 960 square feet within 30 feet or 1,400 square feet within 50 feet of the property line;

The buildings are articulated with various eaves and projections including fireplaces decks, and porches. None of the planes facing the public right-of-way exceed 960 square feet.

b. No building plane shall have a dimension greater than 40 feet in length or 35 feet in height;

No one specific plane exceeds 40 feet in length or 35 feet in height.

c. If more than one building plane faces a property line and building planes align at a common distance from the line, the building planes shall be horizontally separated by at least 20 feet. For purposes of this standard, "common distance" shall be defined as within 12 feet;

The building planes that are within 50 feet and face the property line along the street are separated by a 66 foot common area and the 24 foot wide private driveways.

d. Building plane is defined as a surface that includes a building wall that extends from the ground to the top of each wall of a structure. Area is determined by multiplying the length of each wall by the height. The plane does not include roof area. When a structure along a wall juts out from the wall, or is off-set from an adjacent part less than four feet, the structure is considered part of the building plane of the wall behind it. If the structure protrudes more than four feet, it represents a separate building plane. If a building plane is at an angle in relation to the property line, the midpoint of the wall shall provide the point at which the plane and related distances are measured. These concepts are illustrated in Figure 18.720.1.

B. Front facades. All primary ground-floor common entries or individual unit entries of street frontage units shall be oriented to the street, not to the interior or to a parking lot. The front elevation of large structures must be divided into smaller areas or planes of 500 square feet or less. Projecting features such as porches, balconies, bays and dormer windows and roof pediments are encouraged for structures facing a street to create visual interest.

The elevations include projecting features on all sides. The units are oriented toward the interior private driveway which functions like a private street system. There is no large parking lot, but several smaller pockets of parking are provided along this street to the side and rear of the buildings.

C. Main entrance. Primary structures must be oriented with their main entrance facing the street upon which the project fronts. If the site is on a corner, it may have its main entrance oriented to either street or at the corner.

The structures are oriented towards the interior private drive system. Based on the nature and design of the buildings (3-6 units per building), a more active presence is obtained by fronting the units similarly toward the private drive, versus SW Canterbury.

D. Unit definition. Each dwelling unit shall be emphasized by including a roof dormer or bay windows on the street-facing elevation, or by providing a roof gable or porch that faces the street. Ground level dwelling units shall include porches that shall be at least 48 square feet in area with no dimension less than six feet.

E. Roof lines. Roof-line offsets shall be provided at intervals of 40 feet or less to create variety in the massing of structures and to relieve the effect of a single, long roof. Roof line offsets shall be a minimum 4-foot variation either vertically from the gutter line or horizontally.

F. Trim detail. Trim shall be used to mark all building roof lines, porches, windows and doors that are on a primary structure's street-facing elevation(s).

Five and a half inch wide trim and belly bands are provided on the building roof lines, porches, windows, fascia, and doors.

G. Mechanical equipment. Roof-mounted mechanical equipment, other than vents or ventilators, shall be located and constructed so as to be screened from ground-level view. Screening shall be integrated with exterior building design.

According to the elevations submitted, there are no mechanical units on the roof. The pitched roof system makes compliance with this standard impossible for rooftop mounted equipment. A condition will be imposed requiring these service facilities to be screened.

H. Parking. Parking and loading areas may not be located between the primary structure(s) and the street upon which the structure fronts. If there is no alley and motor vehicle access is from the street, parking must be provided:

1. In a garage that is attached to the primary structure;
2. In a detached accessory structure located at least 50 feet from the front property line; or
3. In a parking area at the side or rear of the site.

Parking is provided in the individual garages, and in the driveways of some units for residents. In addition, guest parking is provided in small pockets along the driveway system. These pockets are located to the side and rear of the units on the site.

I. Pedestrian circulation.

1. The on-site pedestrian circulation system shall be continuous and connect the ground-level entrances of primary structure(s) to the following:

- a. Streets abutting the site;**
- b. Common buildings such as laundry and recreation facilities;**
- c. Parking areas;**
- d. Shared open space and play areas;**
- e. Abutting transit stops; and**
- f. Any pedestrian amenity such as plazas, resting areas and viewpoints.**

A continuous sidewalk is provided around one side of the interior drive. This sidewalk is also linked to the public street, the parking areas and buildings on site, and a soft surfaced pathway that runs through the open space area.

2. There shall be at least one pedestrian connection to an abutting street frontage for each 200 linear feet of street frontage.

The looped sidewalk path provides two connections to the public street, and the soft path provides a third connection for the 450 feet of street frontage.

FINDING: The Design Compatibility Standards are not met.

CONDITIONS:

- ◆ Prior to site work, the applicant shall revise the site plan to show either the buildings located greater than 30 feet from the property line, or alternatively building plans that demonstrate that the portions of the buildings within 30 feet of the property line are less than 25 feet in height.
- ◆ Prior to issuance of building permits, the applicant shall submit plans showing that service facilities (gas meters, and air conditioning units) are screened from view.

Environmental Performance Standards (18.725):

These standards require that federal and state environmental laws, rules and regulations be applied to development within the City of Tigard. Section 18.725.030 Performance Standards regulates: Noise, visible emissions, vibration and odors.

Noise:

For the purposes of noise regulation, the provisions of Sections 7.41.130 through 7.40.210 of the Tigard Municipal Code shall apply.

Visible Emissions:

Within the commercial zoning districts and the industrial park (IP) zoning district, there shall be no use, operation or activity which results in a stack or other point- source emission, other than an emission from space heating, or the emission of pure uncombined water (steam) which is visible from a property line. Department of Environmental Quality (DEQ) rules for visible emissions (340-21-015 and 340-28-070) apply.

Vibration:

No vibration other than that caused by highway vehicles, trains and aircraft is permitted in any given zoning district which is discernible without instruments at the property line of the use concerned.

Odors:

The emissions of odorous gases or other matter in such quantities as to be readily detectable at any point beyond the property line of the use creating the odors is prohibited. DEQ rules for odors (340-028-090) apply.

Glare and heat:

No direct or sky reflected glare, whether from floodlights or from high temperature processes such as combustion or welding, which is visible at the lot line shall be permitted, and; 1) there shall be no emission or transmission of heat or heated air which is discernible at the lot line of the source; and 2) these regulations shall not apply to signs or floodlights in parking areas or construction equipment at the time of construction or excavation work otherwise permitted by this title.

Insects and rodents:

All materials including wastes shall be stored and all grounds shall be maintained in a manner which will not attract or aid the propagation of insects or rodents or create a health hazard.

This is an attached multi-family project, which is an outright permitted use within the R-12 zoning classification. There is no indication within the application that these standards will not be met. However, ongoing efforts to meet these standards shall be maintained and any violation of these standards will be addressed by the City of Tigard's Code Enforcement Officer.

FINDING: The Environmental Performance standards are met.

Landscaping and Screening (18.745):

Street Trees:

Section 18.745.040 states that all development projects fronting on a public street or a private drive more than 100 feet in length shall be required to plant street trees in accordance with Section 18.745.040.C Section 18.745.040.C requires that street trees be spaced between 20 and 40 feet apart depending on the size classification of the tree at maturity (small, medium or large).

The applicant has provided a street tree plan consisting of Scarlet Sentinel Maples planted interior to the property. Staff has recommended against the requested adjustment to the planter strip and therefore, the applicant shall revise or amend their plan to include street trees as approved by the City Forester at the proper spacing along SW Canterbury. This standard is not satisfied.

Buffering and Screening:

Section 18.745.080 states that no buffer is required between abutting uses that are of a different type when the uses are separated by a street. No buffer is required between a proposed multi-family use and an existing multi-family use. Buffering and/or screening are required for dissimilar uses.

The only properties directly abutting these properties that are not developed as multi-family are along the eastern property line. For this eastern edge, a buffer level of C (10' area with a mix of trees, shrubs, and groundcover) is required. The applicant's landscape plan includes 80 feet of area, planted throughout with a variety of trees, and shrubs planted closer to the proposed structures to enable better maintenance. This criterion is satisfied.

Screening:

Special Provisions:

Section 18.745.050.E requires the screening of parking and loading areas. Landscaped parking areas shall include special design features which effectively screen the parking lot areas from view. Planting materials to be installed should achieve a relative balance between low lying and vertical shrubbery and trees. Trees shall be planted in landscaped islands in all parking areas, and shall be equally distributed on the basis of one (1) tree for each seven (7) parking spaces in order to provide a canopy effect. The minimum dimension on the landscape islands shall be three (3) feet wide and the landscaping shall be protected from vehicular damage by some form of wheel guard or curb.

The landscape plan provided by the applicant indicates that the parking areas will be landscaped with a mixture of ground cover, low lying shrubs, and trees. Therefore, this criterion is satisfied.

Screening Of Service Facilities.

Except for one-family and two-family dwellings, any refuse container or disposal area and service facilities such as gas meters and air conditioners which would otherwise be visible from a public street, customer or resident parking area, any public facility or any residential area shall be screened from view by placement of a solid wood fence or masonry wall between five and eight feet in height. All refuse materials shall be contained within the screened area;

The applicant does not show the location of any service facilities especially air conditioning units, so compliance with this standard cannot be verified at this time. This standard is not satisfied.

Screening Of Refuse Containers.

Except for one- and two-family dwellings, any refuse container or refuse collection area which would be visible from a public street, parking lot, residential or commercial area, or any public facility such as a school or park shall be screened or enclosed from view by placement of a solid wood fence, masonry wall or evergreen hedge. All refuse shall be contained within the screened area.

The applicant's narrative indicates that the development will be served by individual trash bins characteristic of the trash bins utilized in single-family residences. Individual trash bins are typically stored on the site and only visible from the street on collection days. This standard is satisfied.

FINDING: Based on the analysis above, the landscaping and screening standards have not been fully met. If the applicant complies with the conditions listed below, the standards will be met.

CONDITIONS:

- ◆ Prior to the site work, the applicant shall submit a revised street tree plan that uses species that are listed as appropriate on the City of Tigard's street tree planting list.
- ◆ Prior to the issuance of building permits, the applicant shall submit a site plan illustrating the locations of all service facilities and demonstrate compliance with the screening standards of Chapter 18.745 of the TDC.

Mixed Solid Waste and Recyclables Storage (18.755):

Chapter 18.755 requires that new construction incorporates functional and adequate space for on-site storage and efficient collection of mixed solid waste and source separated Recyclables prior to pick-up and removal by haulers.

The applicant must choose one (1) of the following four (4) methods to demonstrate compliance: Minimum Standard, Waste Assessment, Comprehensive Recycling Plan, or Franchised Hauler Review and Sign-Off. The applicant will have to submit evidence or a plan which indicates compliance with this section. Regardless of which method chosen, the applicant will have to submit a written sign-off from the franchise hauler regarding the facility location and compatibility.

The applicant has indicated that the homes will be served by individual garbage bins typical of a single-family residence however, the applicant has not provided any evidence that a franchise hauler is content with this style of collection for this type of development. Therefore, this standard is not satisfied.

FINDING: Because the applicant has not provided evidence of compliance with the Mixed Solid Waste and Recyclables Storage design standards, the standards of the chapter have not been met. If the applicant complies with the condition listed below, the standards will be met.

CONDITION: Prior to the issuance of building permits, the applicant shall submit verification from the franchise waste hauler indicating that the location of the proposed trash enclosures meets their requirements.

Off-Street Parking and Loading (18.765):

This Chapter is applicable for development projects when there is new construction, expansion of existing use, or change of use in accordance with Section 18.765.070 Minimum and Maximum Off-Street Parking Requirements.

The proposed project will create 139 condominiums. Condominiums are treated as multi-family development and the minimum parking standards are based on the number of bedrooms in individual units. The required parking is addressed later in this discussion.

Location of vehicle parking:

Off-street parking spaces for single-family and duplex dwellings and single-family attached dwellings shall be located on the same lot with the dwellings. Off-street parking lots for uses not listed above shall be located not further than 200 feet from the building or use that they are required to serve, measured in a straight line from the building with the following exceptions: a) commercial and industrial uses which require more than 40 parking spaces may provide for the spaces in excess of the required first 40 spaces up to a distance of 300 feet from the primary site;

Each unit will be provided with at least a single car garage. Some units have two car garages and others are provided with a driveway apron in front of the garage. No parking spaces are further than 200 feet from the units. This criterion is satisfied.

Visitor Parking in Multi-Family Residential Developments:

Multi-dwelling units with more than 10 required parking spaces shall provide an additional 15% of vehicle parking spaces above the minimum required for the use of guests of residents of the complex. These spaces shall be centrally located or distributed throughout the development. Required bicycle parking facilities shall also be centrally located within or evenly distributed throughout the development.

The applicant has not provided an additional 15% of the total number of resident parking spaces on the site plan. This criterion is not satisfied.

Disabled-Accessible Parking:

All parking areas shall be provided with the required number of parking spaces for disabled persons as specified by the State of Oregon Uniform Building Code and federal standards. Such parking spaces shall be sized, signed and marked as required by these regulations.

The applicant is required to provide 33 accessory parking spaces, therefore, two (2) ADA handicap spaces are required. The applicant's plans do not demonstrate any ADA spaces, but the narrative speaks to providing them. This standard is not satisfied.

Access Drives:

With regard to access to public streets from off-street parking: access drives from the street to off-street parking or loading areas shall be designed and constructed to facilitate the flow of traffic and provide maximum safety for pedestrian and vehicular traffic on the site; the number and size of access drives shall be in accordance with the requirements of Chapter, 18.705, Access, Egress and Circulation; access drives shall be clearly and permanently marked and defined through use of rails, fences, walls or other barriers or markers on frontage not occupied by service drives; access drives shall have a minimum vision clearance in accordance with Chapter 18.795, Visual Clearance; access drives shall be improved with an asphalt or concrete surface; and excluding single-family and duplex residences, except as provided by Subsection 18.810.030.P,

groups of two or more parking spaces shall be served by a service drive so that no backing movements or other maneuvering within a street or other public right-of-way will be required.

The access drive, has been designed to facilitate traffic flow, is identifiable, and paved. Vision clearance is addressed later in this decision under the discussion of Chapter 18.795. Staff has expressed concern, as has the Fire Marshall, that the 24 foot wide driveway is the minimum width for two-way travel. Any obstruction of this travel way will jeopardize residents' safety. Several of the units are situated with less than the minimum distance required to park a vehicle. The Fire Marshall has commented that the private drive be signed with "No Parking" signs on both sides of the driveway. Additionally, the City will require that the applicant submit for review and approval, CC&R or deed language stating that parking shall not be allowed in front of units (specific units to be identified) with less than 18.5 feet of distance to the internal driveway or pedestrian sidewalk. The language shall also note that parking in violation of this restriction is considered a violation of the land use approval subject to civil court citation, in addition to any other remedies provided by law.

Pedestrian Access:

Pedestrian access through parking lots shall be provided in accordance with Section 18.705.030.F. Where a parking area or other vehicle area has a drop-off grade separation, the property owner shall install a wall, railing, or other barrier which will prevent a slow-moving vehicle or driverless vehicle from escaping such area and which will prevent pedestrians from walking over drop-off edges.

All parking areas have pedestrian access by way of the interior sidewalk system. This criterion is satisfied.

Parking Lot Striping:

Except for single-family and duplex residences, any area intended to be used to meet the off-street parking requirements as contained in this Chapter shall have all parking spaces clearly marked; and all interior drives and access aisles shall be clearly marked and signed to show direction of flow and maintain vehicular and pedestrian safety.

The plans submitted show the parking spaces will be clearly marked with striping. This criterion is satisfied.

Wheel Stops:

Parking spaces along the boundaries of a parking lot or adjacent to interior landscaped areas or sidewalks shall be provided with a wheel stop at least four inches high located three feet back from the front of the parking stall. The front three feet of the parking stall may be concrete, asphalt or low lying landscape material that does not exceed the height of the wheel stop. This area cannot be calculated to meet landscaping or sidewalk requirements.

The applicant is providing curbs on all of the parking stalls in the accessory parking areas. This criterion is satisfied.

Space and Aisle Dimensions:

Section 18.765.040.N states that: "except as modified for angled parking in Figures 18.765.1 and 18.765.2 the minimum dimensions for parking spaces are: 8.5 feet x 18.5 feet for a standard space and 7.5 feet x 16.5 feet for a compact space"; aisles accommodating two direction traffic, or allowing access from both ends, shall be 24 feet in width. No more than 50% of the required spaces may be compact spaces.

The applicant's plans and narrative indicate that no more than 50% of the required parking will be developed as compact spaces. This criterion is satisfied.

Bicycle Parking Location and Access:

Section 18.765.050 states bicycle parking areas shall be provided at locations within 50 feet of primary entrances to structures; bicycle parking areas shall not be located within parking aisles, landscape areas or pedestrian ways; outdoor bicycle parking shall be visible from on-site buildings and/or the street. When the bicycle parking area

is not visible from the street, directional signs shall be used to located the parking area; and bicycle parking may be located inside a building on a floor which has an outdoor entrance open for use and floor location which does not require the bicyclist to use stairs to gain access to the space. Exceptions may be made to the latter requirement for parking on upper stories within a multi-story residential building.

The site plan and narrative do not indicate any exterior bicycle parking spaces. According to Table 18.765.2 of the Tigard Development Code, the minimum bicycle parking requirement for a multi-family use is 1 space for every two units. Therefore, the proposal is required to provide 70 bicycle parking spaces. Considering the premise that each unit possesses a garage, it is not likely that the owners will be parking their bikes in racks. The garages will most likely serve to house the residents' bicycles. However, no accommodations for guest parking are provided. Using the premise that guest vehicle parking should account for 15% of the required parking, 15% of 70 bike spaces is 11 guest spaces. This standard is not satisfied.

Bicycle Parking Design Requirements:

Section 18.765.050.C. The following design requirements apply to the installation of bicycle racks: The racks required for required bicycle parking spaces shall ensure that bicycles may be securely locked to them without undue inconvenience. Provision of bicycle lockers for long-term (employee) parking is encouraged but not required; bicycle racks must be securely anchored to the ground, wall or other structure; bicycle parking spaces shall be at least 2½ feet by six feet long, and, when covered, with a vertical clearance of seven feet. An access aisle of at least five feet wide shall be provided and maintained beside or between each row of bicycle parking; each required bicycle parking space must be accessible without moving another bicycle; required bicycle parking spaces may not be rented or leased except where required motor vehicle parking is rented or leased. At-cost or deposit fees for bicycle parking are exempt from this requirement; and areas set aside for required bicycle parking must be clearly reserved for bicycle parking only. Outdoor bicycle parking facilities shall be surfaced with a hard surfaced material, i.e., pavers, asphalt, concrete or similar material. This surface must be designed to remain well drained.

The applicant has not provided a detail of the bike rack to be used; therefore, Staff is unable to confirm that this standard is met.

Minimum Bicycle Parking Requirements:

The total number of required bicycle parking spaces for each use is specified in Table 18.765.2 in Section 18.765.070.H. In no case shall there be less than two bicycle parking spaces.

As discussed above, according to Table 18.765.2 of the Tigard Development Code, the minimum bicycle-parking requirement for a multi-family use is 1 space for every two units. The applicant is providing a garage with each unit. Staff recommends that an additional three space bike rack be provided at each pocket of guest parking. This standard is not satisfied.

Minimum Off-Street Parking:

Section 18.765.070.H states that the minimum and maximum parking shall be as required in Table 18.765.2.

Table 18.765.2 states that the minimum parking for multi-family uses is 1.25 spaces for every one bedroom dwelling unit, 1.5 spaces for every two bedroom dwelling unit, and 1.75 spaces for every three bedroom dwelling unit. The proposal calls for 52 three-bedroom units, 81 two-bedroom dwelling units, and 6 one-bedroom dwelling units.

Type of Unit	Space per Unit	Number of Units	Total Parking Required
1 Bedroom	1.25	6	7.5
2 Bedroom	1.50	81	121.5
3 Bedroom	1.75	52	91
TOTAL		139	220

In addition, multi-family uses are required to provide an additional 15% for visitor parking (an additional 33 spaces) for a grand total of 253 spaces. The applicant has indicated in the narrative that 278 spaces will be provided in garages. There are no floor plans to confirm how this will be accomplished. It is reasonable to assume from the elevations that one space behind each garage door will be provided, however, this equates to 191 parking spaces in the garage. The applicant also notes that 41 spaces are provided on driveway aprons and that there are 31 open guest parking spaces provided. This is confirmed by the site plan.

Therefore, the applicant has exceeded the parking requirement by two spaces for resident parking by providing 222 spaces, but is 2 spaces short for guest parking. It is not reasonable to assume that guests will park in a driveway, as not all units are provided with driveway spaces. No parking will be permitted on the driveway either. It should also be noted that the site plan does not account for ADA required spaces which occupy more area than standard spaces. The site plan will need to be revised to reflect these requirements. This criterion is not satisfied.

FINDING: Based on the analysis above, the off-street parking and loading standards have not been fully satisfied, however, if the applicant complies with the conditions listed below, the standards will be met.

CONDITIONS:

- ◆ Prior to site work, the applicant shall submit revised site plans that show:
 - A. A total of 33 guest parking spaces.
 - B. Two ADA compliant spaces.
 - C. Eleven bicycle spaces distributed throughout the site with a detail of the design of the bike rack to be used.
- ◆ Prior to the issuance of building permits, the applicant shall submit floor plans that demonstrate that the parking within the garages will meet the minimum size standards for full-size parking spaces.
- ◆ Prior to the issuance of building permits, the applicant shall submit for review and approval, copies of CC&R or deed language restricting parking on the internal street or in front of units (to be specified) with less than 18.5 feet of setback distance from the internal driveway. The language shall also note that parking in violation of this restriction is considered a violation of the land use approval subject to civil court citation, in addition to any other remedies provided by law.

Sensitive Lands (18.775)

Wetland regulations apply to those areas classified as significant on the City of Tigard Wetland and Streams Corridors Map, and to a vegetated corridor ranging from 25 to 200 feet wide, measured horizontally, from the defined boundaries of the wetland, per Table 3.1 Vegetated Corridor Widths and Appendix C. Natural Resource Assessments of the CWS Design and Construction Standards. Wetland locations may include but are not limited to those areas identified as wetlands in Wetland Inventory and Assessment for the City of Tigard, Oregon, Fishman Environmental Services, 1994.

Precise boundaries may vary from those shown on wetland maps; specific delineation of wetland boundaries may be necessary. Wetland delineation will be done by qualified professionals at the applicant's expense.

The development site contains a small area of steep slopes. This approximate 1500 square foot area is the result of previous grading to establish a bench for the existing Canterbury Crest Retirement Center. The slope is located at the rear of the parking and will be largely left undisturbed behind the proposed units.

With steep slopes. The appropriate approval authority shall approve, approve with conditions or deny an application request for a sensitive lands permit on slopes of 25% or greater or unstable ground based upon findings that all of the following criteria have been satisfied:

1. The extent and nature of the proposed land form alteration or development will not create site disturbances to an extent greater than that required for the use;

The applicant is minimizing site disturbances by locating improvements outside the steep slope area. Some minimal grading will occur, but no more than required to accommodate the proposed multi-family residential use.

2. The proposed land form alteration or development will not result in erosion, stream sedimentation, ground instability, or other adverse on-site and off-site effects or hazards to life or property;

The land form alteration will not cause greater erosion as it will lessen the degree of slope than what presently exists. Ground stability is assured by foundation construction that will be required to be engineered. There are no streams within proximity to the steep slope area. An erosion control and grading plan will be required to avoid any adverse on-site or off-site effects or hazards to life or property.

3. The structures are appropriately sited and designed to ensure structural stability and proper drainage of foundation and crawl space areas for development with any of the following soil conditions: wet/high water table; high shrink-swell capability; compressible/organic; and shallow depth-to-bedrock; and

The applicant has included a geotech report with the application. The recommendations included in that report for Site Preparation, Construction Methods, Trench Excavation, Structural Fill, Permanent Slopes, Shallow Foundations, Retaining Structures, and Pavement shall be incorporated into the construction and building plans for this project.

4. Where natural vegetation has been removed due to land form alteration or development, the areas not covered by structures or impervious surfaces will be replanted to prevent erosion in accordance with Chapter 18.745, Landscaping and Screening.

The applicant has included a landscape plan that shows how the site will ultimately be landscaped, including areas in and around the steep slopes area. Moreover, an erosion control plan will include temporary landscaping measures to ensure erosion is prevented.

FINDING: Provided the applicant complies with the following conditions, the proposal can meet the criteria necessary to issue a sensitive lands permit on this particular site.

CONDITIONS:

- ◆ Prior to site work, the applicant shall submit an erosion control plan that follows the standards found in Chapter 18.745.060.
- ◆ Prior to issuance of site permits, the applicant shall submit construction plans that incorporate the recommendations for Site Preparation, Construction Methods, Trench Excavation, Structural Fill, Permanent Slopes, Retaining Structures, and Pavement.
- ◆ Prior to issuance of building permits, the applicant shall incorporate the recommendations of the geotech report regarding building design into the building permit plan set.

Signs (18.780):

Chapter 18.780.130.B lists the type of allowable signs and sign area permitted in the R-12 Zoning District.

No signs are proposed in conjunction with this development. The applicant may apply for sign permits to erect entry signs as authorized in Section 18.780.130(A)(3). Any future signage will be subject to the sign permit requirements in Chapter 18.780. There has been a proliferation of sign violations from new subdivisions. In accordance with a new policy adopted by the

Director's Designee, all new subdivisions must enter into a sign compliance agreement to facilitate a more expeditious court process for citations.

FINDING: To expedite enforcement of sign violations, a sign compliance agreement will be required.

CONDITION: Prior to the issuance of building permits, the developer shall sign a copy of the City's sign compliance agreement.

Tree Removal (18.790):

Section 18.790.030 requires that a tree plan for the planting, removal and protection of trees prepared by a certified arborist shall be provided with a site development review application. The tree plan shall include identification of all existing trees, identification of a program to save existing trees or mitigate tree removal over 12 inches in caliper, which trees are to be removed, protection program defining standards and methods that will be used by the applicant to protect trees during and after construction.

The applicant has provided an arborist report as well as a tree plan identifying trees that are to be removed and trees to be saved. The plan also includes a third category, "trees to be removed as necessary." This includes trees that are anticipated to be retained, but depending on site specific factors, may require removal during the construction process. For the purposes of calculating the required mitigation, these trees were assumed to be removed. Final mitigation tabulation will occur after initial improvements are installed, and prior to issuance of building permits.

Based on the tree plan submitted, there are a total of 248 trees greater than 12 inches diameter. Of these 18 are considered hazardous reducing the total number of trees to 230. Of the 230, 65 (28%) will be cut for the required improvements, 21 (9%) may need to be cut based on site specific factors, and 144 (62%) will be retained. This represents a mitigation requirement of 50% of the caliper inches being removed. The applicant may plant the required mitigation on site, off-site, or pay the fee in-lieu. Prior to obtaining building permits, the applicant shall submit a final removal and mitigation program that shows the actual number and size of trees removed, and includes provisions for the required mitigation. If payment in-lieu is proposed, it shall be paid prior to issuance of building permits. If trees are to be planted, a cash assurance for the value of the planting shall be required prior to building permit issuance.

FINDING: According to the City Arborist, the plan and calculations submitted by the applicant are not accurate.

CONDITIONS:

- ◆ Prior to ANY site work, a tree protection plan, prepared by a certified arborist shall be submitted to the City Forester for review and approval. A plan to be included with the construction documents shall indicate the location of building envelopes and protection fencing and shall take into account off-site trees that overhang into the subject property. Consideration for utility trench alignments and grading shall also be a part of the protection plan. After initial improvements are complete, protection fencing shall be re-established around the building envelopes as shown on the applicants Tree Protection Plan, see Sheet 4. Once the protection plan is approved, tree protection measures must be installed for all trees to be retained. Once installed, the City Forester must inspect the tree protection measures.
- ◆ Prior to issuance of building permits, the applicant shall submit a final removal and mitigation program reflective and consistent with the preliminary removal plan that shows the actual number and size of trees that were removed, and additionally includes provisions for the required mitigation. If payment in-lieu is proposed, it shall be paid prior to issuance of building permits. If trees are to be planted, a cash assurance for the value of the planting shall be required prior to building permit issuance.

- ◆ Only those trees authorized for removal by this decision, and any trees that are exempt may be removed by the applicant. If in the process of constructing improvements, it is found that removal of a tree designated for preservation must occur, the applicant will be subject to mitigation for 100% of the caliper inches of that tree. Any trees damaged or removed without prior City authorization will constitute a violation.
- ◆ The following text shall be included in all construction documents:

Notwithstanding any other provision of this title, any party found to be in violation of the tree removal chapter (including but not limited to removal or damage to trees not approved for removal) shall be subject to a civil penalty of up to \$500 pursuant to Chapter 1.16 of the Tigard Municipal Code and shall be required to remedy any damage caused by the violation. Such remediation shall include, but not be limited to, the following:

 1. Replacement of unlawfully removed or damaged trees in accordance with Section 18.790.060 (D) of the Tigard Development Code; and
 2. Payment of an additional civil penalty representing the estimated value of any unlawfully removed or damaged tree, as determined using the most current International Society of Arboriculture's Guide for Plant Appraisal.
- ◆ The applicant shall record a deed restriction (either separately or as part of the CC&R's) that any tree preserved or retained in accordance with the approved tree plan may be removed only if the tree dies or is hazardous according to a certified arborist. The deed restriction may be removed or will be considered invalid if a tree preserved in accordance with this section should either die or be removed as a hazardous tree.

Visual Clearance Areas (18.795):

Chapter 18.795 requires that a clear vision area shall be maintained on the corners of all property adjacent to intersecting right-of-ways or the intersection of a public street and a private driveway. A clear vision area shall contain no vehicle, hedge, planting, fence, wall structure, or temporary or permanent obstruction exceeding three (3) feet in height. The code provides that obstructions that may be located in this area shall be visually clear between three (3) and eight (8) feet in height (8) (trees may be placed within this area provided that all branches below eight (8) feet are removed). A visual clearance area is the triangular area formed by measuring a 30-foot distance along the street right-of-way and the driveway, and then connecting these two (2), 30-foot distance points with a straight line.

The applicant has indicated in the narrative and the site plan that a clear vision area will be maintained. Staff will review the areas at the time of final occupancy to ensure compliance with the standards. This criterion is satisfied.

FINDING: Based on the analysis above, the vision clearance standards have been met.

C. SPECIFIC SITE DEVELOPMENT REVIEW APPROVAL STANDARDS

Section 18.360.090(A)(2) through 18.360.090(A)(15) provides additional Site Development Review approval standards not necessarily covered by the provisions of the previously listed sections. These additional standards are addressed below :

Compliance with all of the applicable requirements of this title including Chapter 18.810, Street and Utility Standards;

Those titles of the Tigard Development Code (TDC) have been addressed elsewhere in this decision where applicable. Chapter 18.810 is discussed later in this chapter. Compliance with the chapters has been demonstrated, or conditions have been imposed on the development to ensure compliance where applicable.

Relationship to the natural and physical environment:

Buildings shall be located to preserve existing trees, topography and natural drainage where possible based upon existing site conditions; located in areas not subject to ground slumping or sliding; located to provide adequate distance between adjoining buildings for adequate light, air circulation, and fire-fighting; and Oriented with consideration for sun and wind.

The applicant has provided a tree plan. The site is proposed to be developed with respect to the natural and physical environment retaining a large number of trees around the perimeter of the site, and retaining an existing fir grove in the northeast corner, and the applicant has been careful to ensure that there is adequate distance between the buildings to ensure that adequate light, air circulation, and firefighting is attainable. The buildings are oriented such that all buildings will receive some sun during the day. This criterion is satisfied.

Trees shall be preserved to the extent possible. Replacement of trees is subject to the requirements of Chapter 18.790, Tree Removal.

Tree preservation has been addressed previously in this decision. This criterion has already been addressed.

Exterior elevations:

Along the vertical face of single-family attached and multiple-family structures, offsets shall occur at a minimum of every 30 feet by providing any two of the following recesses, e.g., decks, patios, entrances, floor area, of a minimum depth of eight feet; Extensions, e.g., decks, patios, entrances, floor area, of a minimum depth of eight feet, a maximum length of an overhang shall be 25 feet; and Offsets or breaks in roof elevations of three or more feet in height.

The applicant has indicated in the narrative that offsets will occur at a minimum of every thirty feet through a combination of recesses and extensions, and the plans show various styles of recesses. This standard is satisfied.

Buffering, screening and compatibility between adjoining uses:

Buffering shall be provided between different types of land uses, for example, between single-family and multiple-family residential, and residential and commercial uses, and the following factors shall be considered in determining the adequacy of the type and extent of the buffer: On site screening from view from adjoining properties of such things as service areas, storage areas, parking lots, and mechanical devices on roof tops, i.e., air cooling and heating systems, shall be provided and the following factors will be considered in determining the adequacy of the type and extent of the screening:

Buffering and screening has been addressed elsewhere in this decision. The discussion related to buffering and screening can be viewed under the analysis in Chapter 18.745. This standard is satisfied.

Privacy and noise: multi-family or group living uses:

Structures which include residential dwelling units shall provide private outdoor areas for each ground floor unit which is screened from view by adjoining units as provided in Subsection 6.a below;

The buildings shall be oriented in a manner which protects private spaces on adjoining properties from view and noise; On-site uses which create noise, light, or glare shall be buffered from adjoining residential uses; and buffers shall be placed on the site as necessary to mitigate noise, light or glare from off-site sources.

The applicant is providing a buffer and privacy fencing to ensure that the adjoining properties will be protected from views and noises that are nuisances and the standards relating to those nuisances can be enforced through code compliance pursuant to TDC Chapter 18.725 Environmental Standards.

Private outdoor area: multi-family use:

Private open space such as a patio or balcony shall be provided and shall be designed for the exclusive use of individual units and shall be at least 48 square feet in size with a minimum width dimension of four feet; and balconies used for entrances or exits shall not be considered as open space except where such exits or entrances are for the sole use of the unit; and required open space may include roofed or enclosed structures such as a recreation center or covered picnic area. Wherever possible, private outdoor open spaces should be oriented toward the sun; and private outdoor spaces shall be screened or designed to provide privacy for the users of the space.

The applicant has indicated in the narrative that each unit will be provided with a private outdoor area, however, the space is not illustrated on the plans, and staff is unable to verify compliance. This standard is not satisfied.

Shared outdoor recreation areas: multi-family use:

In addition to the requirements of the subsections above, usable outdoor recreation space shall be provided in residential developments for the shared or common use of all the residents in the following amounts: Studio up to and including two-bedroom units, 200 square feet per unit; and Three or more bedroom units, 300 square feet per unit. The required recreation space may be provided as follows: It may be all outdoor space; or It may be part outdoor space and part indoor space; for example, an outdoor tennis court, and indoor recreation room; or It may be all public or common space; or It may be part common space and part private; for example, it could be an outdoor tennis court, indoor recreation room and balconies on each unit; and where balconies are added to units, the balconies shall not be less than 48 square feet. Shared outdoor recreation space shall be readily observable to promote crime prevention and safety; and where landfill and/or development is allowed within and adjacent to the 100-year floodplain, the City shall require consideration of the dedication of sufficient open land area for greenway adjoining and within the floodplain. This area shall include portions at a suitable elevation for the construction of a pedestrian/bicycle pathway within the floodplain in accordance with the adopted pedestrian/ bicycle plan.

A large portion of the site around its perimeter will be enhanced with additional landscaping and left as open space. This common area is traversed by a soft surfaced path for recreational use. Based on the applicant's housing mix, 33,000 square feet of common space is required. The large tree grove in the northeast corner alone accounts for at least 52,000 square feet. This standard is met.

Demarcation of public, semi-public and private spaces for crime prevention:

The structures and site improvements shall be designed so that public areas such as streets or public gathering places, semi-public areas and private outdoor areas are clearly defined to establish persons having a right to be in the space, to provide for crime prevention and to establish maintenance responsibility; and these areas may be defined by, but not limited to: A deck, patio, low wall, hedge, or draping vine; A trellis or arbor; A change in elevation or grade; A change in the texture of the path material; Sign; or landscaping.

The applicant has stated in the narrative that all public spaces will be clearly designated by a variety of the measures suggested above. The applicant has provided a landscaping plan to demonstrate compliance, and the public areas are apparent on the site plan. The site itself is served by a private drive that will be marked with alternative signage. Compliance with this standard as with all other standards related to privacy will be verified at the time staff does a final inspection. This standard is satisfied.

Crime prevention and safety:

Windows shall be located so that areas vulnerable to crime can be surveyed by the occupants; Interior laundry and service areas shall be located in a way that they can be observed by others; Mail boxes shall be located in lighted areas having vehicular or pedestrian traffic; The exterior lighting levels shall be selected and the angles shall be oriented towards areas vulnerable to crime; and light fixtures shall be provided in areas having heavy pedestrian or vehicular traffic and in potentially dangerous areas such as parking lots, stairs, ramps and abrupt grade changes. Fixtures shall be placed at a height so that light patterns overlap at a height of seven feet which is sufficient to illuminate a person.

The applicant has indicated in the narrative that they intend to meet these standards. Each unit will have its own private laundry area, mailboxes will be along the private drive or located out on the public street, and a lighting plan has been provided to ensure that the site is clearly visible during darkness. This standard is met.

Public transit:

Provisions within the plan shall be included for providing for transit if the development proposal is adjacent to or within 500 feet of existing or proposed transit route; The requirements for transit facilities shall be based on: The location of other transit facilities in the area; and the size and type of the proposal.

SW Canterbury is not a transit route but the site is within 250 feet of SW Pacific Highway which has two bus lines (#12 and 95). Tri-met has been notified of the project but did not provide any comments. There is an existing bus stop located at the corner of Pacific Highway and SW Canterbury. Based on the size and type of proposal, it is even more evident that an adjustment to allow a narrow sidewalk is not appropriate as this will serve as the primary pedestrian connection between the project and the transit street. This standard is satisfied.

Landscaping:

All landscaping shall be designed in accordance with the requirements set forth in Chapter 18.745;

Landscaping and the applicable landscaping standards have been addressed previously in this decision. This standard is satisfied.

Drainage:

All drainage plans shall be designed in accordance with the criteria in the adopted 1981 master drainage plan;

Discussion relating to compliance with drainage standards has been addressed in the following discussion of streets and utilities. This standard is satisfied.

Provision for the disabled: All facilities for the disabled shall be designed in accordance with the requirements set forth in ORS Chapter 447; and

The applicant has indicated that the facility will be equipped with the appropriate ADA required devices, and compliance with this standard is ensured during plan review of the individual buildings and site work permit. This standard is satisfied.

All of the provisions and regulations of the underlying zone shall apply unless modified by other sections or this title, e.g., Planned Developments, Chapter 18.350; or a variance or adjustment granted under Chapter 18.370.

These items have been discussed elsewhere in this decision. Where the standards have been found to be deficient, conditions have been imposed on the development to ensure compliance. This standard is satisfied.

FINDING: The application has demonstrated compliance with all applicable Site Development Review Criteria with the exception of the requirement for private outdoor open space. Other conditions have been imposed elsewhere in this decision with regard to individual approval criteria of all applicable chapters of the Tigard Development Code.

CONDITION: Prior to the issuance of building permits, the applicant shall provide City staff with a plan that demonstrates that the applicant is providing a minimum of 48 square feet of private open space for each unit in compliance with TDC Section 18.360.090(A)(6).

E. IMPACT STUDY (18.390)

Section 18.360.090 states, "The Director shall make a finding with respect to each of the following criteria when approving, approving with conditions or denying an application:"

Section 18.390.040 states that the applicant shall provide an impact study to quantify the effect of development on public facilities and services. For each public facility system and type of impact, the study shall propose improvements necessary to meet City standard, and to minimize the impact of the development on the public at large, public facilities systems, and affected private property users.

In situations where the Community Development Code requires the dedication of real property interests, the applicant shall either specifically concur with a requirement for public right-of-way dedication, or provide evidence that supports that the real property dedication is not roughly proportional to the projected impacts of the development. Section 18.390.040 states that when a condition of approval requires the transfer to the public of an interest in real property, the approval authority shall adopt findings which support the conclusion that the interest in real property to be transferred is roughly proportional to the impact the proposed development will have on the public.

The applicant has provided an impact study addressing the project's impacts on public systems. The Washington County Traffic Impact Fee (TIF) is a mitigation measure that is required at the time of development. Based on a transportation impact study prepared by Mr. David Larson for the A-Boy Expansion/Dolan II/Resolution 95-61, TIF's are expected to recapture 32 percent of the traffic impact of new development on the Collector and Arterial Street system. The applicant will be required to pay TIF's of approximately \$219,235.

Based on the estimate that total TIF fees cover 32 percent of the impact on major street improvements citywide, a fee that would cover 100 percent of this projects traffic impact is \$685,109 (\$219,235 divided by .32)

The difference between the TIF paid, and the full impact, is considered the unmitigated impact on the street system. In this case the value of the unmitigated impact is \$465,874.

The applicant will be dedicating about 900 square feet of right-of-way, and will also be required to construct a new sidewalk. The value of these exactions is:

Right-of-way dedications, 900 s.f. @ 3.00 per s.f.= \$2,700.
Sidewalk Improvement, 450 l.f. @ 20.00 per l.f. = \$9,000.
TOTAL \$11,700

FINDING: Since the value of the exactions is less than the value of the remaining unmitigated impact, these exactions are proportionate and justified.

Street And Utility Improvements Standards (Section 18.810):

Chapter 18.810 provides construction standards for the implementation of public and private facilities and utilities such as streets, sewers, and drainage. The applicable standards are addressed below:

Section 18.810.030.A.1 states that streets within a development and streets adjacent shall be improved in accordance with the TDC standards.

Section 18.810.030.A.2 states that any new street or additional street width planned as a portion of an existing street shall be dedicated and improved in accordance with the TDC.

Minimum Rights-of-Way and Street Widths:

Section 18.810.030.E requires an arterial street to have a 100-foot right-of-way width and a -foot paved section. Other improvements required may include on-street parking, sidewalks and bikeways, underground utilities, street lighting, storm drainage, and street trees.

SW Canterbury Lane

This site lies adjacent to SW Canterbury Lane, which is classified as a Neighborhood Route on the City of Tigard Transportation Plan Map. At present, there is approximately 45 feet of ROW, according to the most recent tax assessor's map. The applicant should dedicate ROW to provide for 27 feet from centerline.

SW Canterbury is currently partially improved. In order to mitigate the impact from this development, the applicant should provide a 5-foot planter strip and 5-foot sidewalk.

Internal Private Access

Because this project is a condominium project, it will not be treated the same as a subdivision, where the private streets are reviewed and inspected by the Engineering Department. They will be reviewed and inspected by the Building Division as a part of the Site Permit. The only public portion of the access system will be the entry points at Canterbury Street.

Future Street Plan and Extension of Streets:

Section 18.810.030.F states that a future street plan shall be filed which shows the pattern of existing and proposed future streets from the boundaries of the proposed land division. This section also states that where it is necessary to give access or permit a satisfactory future division of adjoining land, streets shall be extended to the boundary lines of the tract to be developed and a barricade shall be constructed at the end of the street. These street stubs to adjoining properties are not considered to be cul-de-sacs since they are intended to continue as through streets at such time as the adjoining property is developed. A barricade shall be constructed at the end of the street by the property owners which shall not be removed until authorized by the City Engineer, the cost of which shall be included in the street construction cost. Temporary hammerhead turnouts or temporary cul-de-sac bulbs shall be constructed for stub streets in excess of 150 feet in length.

The applicant has submitted a circulation plan showing the pattern of existing and proposed future streets. Due to existing street system and development patterns the applicant indicates that there is no possibility of providing future connectivity to adjacent properties.

Street Alignment and Connections:

Section 18.810.030.H.1 states that full street connections with spacing of no more than 530 feet between connections is required except where prevented by barriers such as topography, railroads, freeways, pre-existing developments, lease provisions, easements, covenants or other restrictions existing prior to May 1, 1995 which preclude street connections. A full street connection may also be exempted due to a regulated water feature if regulations would not permit construction.

Section 18.810.030.H.2 states that all local, neighborhood routes and collector streets which abut a development site shall be extended within the site to provide through circulation when not precluded by environmental or topographical constraints, existing development patterns or strict adherence to other standards in this code. A street connection or extension is precluded when it is not possible to redesign, or reconfigure the street pattern to provide required extensions. Land is considered topographically constrained if the slope is greater than 15% for a distance of 250 feet or more. In the case of environmental or topographical constraints, the mere presence of a constraint is not sufficient to show that a street connection is not possible. The applicant must show why the constraint precludes some reasonable street connection.

There are no public street connections needed through this site due to existing development surrounding the site and topography.

Cul-de-sacs:

18.810.030.I states that a cul-de-sac shall be no more than 200 feet long, shall not provide access to greater than 20 dwelling units, and shall only be used when environmental or topographical constraints, existing development pattern, or strict adherence to other standards in this code preclude street extension and through circulation:

- ◆ **All cul-de-sacs shall terminate with a turnaround. Use of turnaround configurations other than circular, shall be approved by the City Engineer; and**
- ◆ **The length of the cul-de-sac shall be measured along the centerline of the roadway from the near side of the intersecting street to the farthest point of the cul-de-sac.**

- ◆ If a cul-de-sac is more than 300 feet long, a lighted direct pathway to an adjacent street may be required to be provided and dedicated to the City.

Does not apply.

Grades and Curves:

Section 18.810.030.N states that grades shall not exceed ten percent on arterials, 12% on collector streets, or 12% on any other street (except that local or residential access streets may have segments with grades up to 15% for distances of no greater than 250 feet). Centerline radii of curves shall be as determined by the City Engineer.

The improvements to Canterbury Lane will not alter the grades, which are well below 12%. The internal private drive aisles are not subject to this standard.

Access to Arterials and Major Collectors:

Section 18.810.030.Q states that where a development abuts or is traversed by an existing or proposed arterial or major collector street, the development design shall provide adequate protection for residential properties and shall separate residential access and through traffic, or if separation is not feasible, the design shall minimize the traffic conflicts. The design shall include any of the following:

- ◆ A parallel access street along the arterial or major collector;
- ◆ Lots of suitable depth abutting the arterial or major collector to provide adequate buffering with frontage along another street;
- ◆ Screen planting at the rear or side property line to be contained in a nonaccess reservation along the arterial or major collector; or
- ◆ Other treatment suitable to meet the objectives of this subsection;
- ◆ If a lot has access to two streets with different classifications, primary access should be from the lower classification street.

Does not apply.

Private Streets:

Section 18.810.030.T states that design standards for private streets shall be established by the City Engineer. The City shall require legal assurances for the continued maintenance of private streets, such as a recorded maintenance agreement. Private streets serving more than six dwelling units are permitted only within planned developments, mobile home parks, and multi-family residential developments.

Since this project is a condominium development, the entire internal access network is classified as a private driveway to be privately maintained by the condominium owners. State statutes set out specific regulations as to how ownership and maintenance of common areas is established. The internal access system will be reviewed and inspected by the Building Division as a part of the Site Permit.

Block Designs:

Section 18.810.040.A states that the length, width and shape of blocks shall be designed with due regard to providing adequate building sites for the use contemplated, consideration of needs for convenient access, circulation, control and safety of street traffic and recognition of limitations and opportunities of topography.

Block Sizes:

Section 18.810.040.B.1 states that the perimeter of blocks formed by streets shall not exceed 1,800 feet measured along the right-of-way line except:

- ◆ Where street location is precluded by natural topography, wetlands or other bodies of water or, pre-existing development or;
- ◆ For blocks adjacent to arterial streets, limited access highways, major collectors or railroads.
- ◆ For non-residential blocks in which internal public circulation provides equivalent access.

No streets are being created by this development. Nevertheless, the internal driveway system provides two blocks measuring approximately 1,160 and 1,170 linear feet respectively. Future street connection for this development is prohibitive due to the existing development patterns surrounding the site. This standard is satisfied.

Section 18.810.040.B.2 also states that bicycle and pedestrian connections on public easements or right-of-ways shall be provided when full street connection is not possible. Spacing between connections shall be no more than 330 feet, except where precluded by environmental or topographical constraints, existing development patterns, or strict adherence to other standards in the code.

There are no opportunities to connect a bicycle or pedestrian connection to surrounding streets as the adjoining parcels are presently developed and do not provide for any such extension.

Lots - Size and Shape:

Section 18.810.060(A) prohibits lot depth from being more than 2.5 times the average lot width, unless the parcel is less than 1.5 times the minimum lot size of the applicable zoning district.

The parcel is pre-existing, and the applicant is not proposing to create any new parcels. This standard is satisfied.

Lot Frontage:

Section 18.810.060(B) requires that lots have at least 25 feet of frontage on public or private streets, other than an alley. In the case of a land partition, 18.420.050.A.4.c applies, which requires a parcel to either have a minimum 15-foot frontage or a minimum 15-foot wide recorded access easement. In cases where the lot is for an attached single-family dwelling unit, the frontage shall be at least 15 feet.

The parcel is pre-existing and has over 450 feet of frontage onto SW Canterbury.

Sidewalks:

Section 18.810.070.A requires that sidewalks be constructed to meet City design standards and be located on both sides of arterial, collector and local residential streets.

The applicant has requested an adjustment to the sidewalk and planter strip standards. Staff does not agree and has denied the adjustment. The applicant shall construct a 5-foot planter strip and a 5-foot sidewalk along the length of their Canterbury Lane frontage.

Sanitary Sewers:

Sewers Required: Section 18.810.090.A requires that sanitary sewer be installed to serve each new development and to connect developments to existing mains in accordance with the provisions set forth in Design and Construction Standards for Sanitary and Surface Water Management (as adopted by Clean Water Services in 1996 and including any future revisions or amendments) and the adopted policies of the comprehensive plan.

Over-sizing:

Section 18.810.090.C states that proposed sewer systems shall include consideration of additional development within the area as projected by the Comprehensive Plan.

The applicant's plans indicate that the site sewer lateral will connect to the public main in Canterbury Lane.

Storm Drainage:

General Provisions: Section 18.810.100.A states requires developers to make adequate provisions for storm water and flood water runoff.

Accommodation of Upstream Drainage:

Section 18.810.100.C states that a culvert or other drainage facility shall be large enough to accommodate potential runoff from its entire upstream drainage area, whether inside or outside the development. The City Engineer shall approve the necessary size of the facility, based on the provisions of Design and Construction Standards for Sanitary and Surface Water Management (as adopted by Clean Water Services in 2000 and including any future revisions or amendments).

There are no upstream drainage ways impacting this site.

Effect on Downstream Drainage:

Section 18.810.100.D states that where it is anticipated by the City Engineer that the additional runoff resulting from the development will overload an existing drainage facility, the Director and Engineer shall withhold approval of the development until provisions have been made for improvement of the potential condition or until provisions have been made for storage of additional runoff caused by the development in accordance with the Design and Construction Standards for Sanitary and Surface Water Management (as adopted by Clean Water Services in 2000 and including any future revisions or amendments).

In 1997, Clean Water Services (CWS) completed a basin study of Fanno Creek and adopted the Fanno Creek Watershed Management Plan. Section V of that plan includes a recommendation that local governments institute a stormwater detention/effective impervious area reduction program resulting in no net increase in storm peak flows up to the 25-year event. The City will require that all new developments resulting in an increase of impervious surfaces provide onsite detention facilities, unless the development is located adjacent to Fanno Creek. For those developments adjacent to Fanno Creek, the storm water runoff will be permitted to discharge without detention.

Detention is required when the net, new impervious surface area exceeds 5,000 square feet. The applicant's plans indicate that they will provide detention for site runoff by installing oversized pipes underground, thereby meeting the criterion.

Bikeways and Pedestrian Pathways:

Bikeway Extension: Section 18.810.110.A states that developments adjoining proposed bikeways identified on the City's adopted pedestrian/bikeway plan shall include provisions for the future extension of such bikeways through the dedication of easements or right-of-way.

Canterbury Lane is not designated as a bicycle facility.

Cost of Construction:

Section 18.810.110.B states that development permits issued for planned unit developments, conditional use permits, subdivisions, and other developments which will principally benefit from such bikeways shall be conditioned to include the cost or construction of bikeway improvements.

Not applicable.

Utilities:

Section 18.810.120 states that all utility lines, but not limited to those required for electric, communication, lighting and cable television services and related facilities shall be placed underground, except for surface mounted transformers, surface mounted connection boxes and meter cabinets which may be placed above ground, temporary utility service facilities during construction, high capacity electric lines operating at 50,000 volts or above, and:

- ◆ **The developer shall make all necessary arrangements with the serving utility to provide the underground services;**
- ◆ **The City reserves the right to approve location of all surface mounted facilities;**

- ◆ All underground utilities, including sanitary sewers and storm drains installed in streets by the developer, shall be constructed prior to the surfacing of the streets; and
- ◆ Stubs for service connections shall be long enough to avoid disturbing the street improvements when service connections are made.

Exception to Under-Grounding Requirement:

Section 18.810.120.C states that a developer shall pay a fee in-lieu of under-grounding costs when the development is proposed to take place on a street where existing utilities which are not underground will serve the development and the approval authority determines that the cost and technical difficulty of under-grounding the utilities outweighs the benefit of under-grounding in conjunction with the development. The determination shall be on a case-by-case basis. The most common, but not the only, such situation is a short frontage development for which under-grounding would result in the placement of additional poles, rather than the removal of above-ground utilities facilities. An applicant for a development which is served by utilities which are not underground and which are located across a public right-of-way from the applicant's property shall pay a fee in-lieu of under-grounding.

There are no existing overhead utility lines along the frontage of SW Canterbury Lane

ADDITIONAL CITY AND/OR AGENCY CONCERNS WITH STREET AND UTILITY IMPROVEMENT STANDARDS:

Traffic Study Findings:

A Transportation Impact Analysis was prepared by Kittelson & Associates, Inc., dated April 22, 2004. Their study included the Canterbury Lane intersections at Highway 99, 103rd Avenue and 109th Avenue. The report concluded that these intersections operate within operating standards acceptable to the City of Tigard under the existing conditions. The report further concluded that these intersections would continue to operate at acceptable levels under build-out year 2005 traffic conditions.

No off-site improvements (other than those required for half-street improvements) are warranted.

Fire and Life Safety:

The TVFR letter, dated October 15, 2002, states that the internal private access drives are approved at a 24-foot width, provided "No Parking" signs are installed on both sides of the drive aisles. The applicant's site plan shall show these signs to be installed.

Public Water System:

This site is located in the City's 550-foot service zone, and can only be served at present from the high pressure 8-inch water line in Canterbury Lane. The minimum fire flow requirements for a project like this is 2,500 gallons per minute (gpm). The Applicant's engineer must provide calculations to the City that demonstrate that they will achieve this minimum flow. Any hydrant flow testing required to make these calculations must be coordinated with Public Works so that the pump station at Canterbury can be monitored and factored into the engineer's calculations.

If the Applicant can not achieve a minimum fire flow of 2,500 gpm, the engineer will need to propose a solution. It is possible that the Applicant would need to install a larger diameter water line in parallel with the 8-inch high pressure line. The City's master plan shows a future 18-inch transmission line to this area that would be run in Canterbury Lane. If upsizing is needed to support this development, the City will require that an 18-inch be installed. The City and the Applicant can then discuss any reimbursement the City will offer for any upsizing costs that are over and above what is needed to support the development.

Storm Sewer System:

The applicant has indicated on the plans that they are planning to discharge stormwater from this development to the low areas on the site through a dispersion system. In contrast, the applicant's narrative indicates that the stormwater will be discharged to the existing storm sewer system in the public street. The applicant will be required to connect to the public storm sewer system in the street. The PFI submittal plans shall be revised to show the connection to the system in the street, system upgrades and the calculations that support these changes.

Storm Water Quality:

The City has agreed to enforce Surface Water Management (SWM) regulations established by Clean Water Services (CWS) Design and Construction Standards (adopted by Resolution and Order No. 00-7) which require the construction of on-site water quality facilities. The facilities shall be designed to remove 65 percent of the phosphorus contained in 100 percent of the storm water runoff generated from newly created impervious surfaces. In addition, a maintenance plan shall be submitted indicating the frequency and method to be used in keeping the facility maintained through the year.

Prior to construction, the applicant shall submit plans and calculations for a water quality facility that will meet the intent of the CWS Design Standards. In addition, the applicant shall submit a maintenance plan for the facility that must be reviewed and approved by the City prior to construction.

To ensure compliance with Clean Water Services design and construction standards, the applicant shall employ the design engineer responsible for the design and specifications of the private water quality facility to perform construction and visual observation of the water quality facility for compliance with the design and specifications. These inspections shall be made at significant stages throughout the project and at completion of the construction. Prior to final building inspection, the design engineer shall provide the City of Tigard (Inspection Supervisor) with written confirmation that the water quality facility is in compliance with the design and specifications.

The proposed unit from Stormwater Management is acceptable, provided the property owner agrees to hire the manufacturer (or approved equal) to provide the required maintenance of the unit. Prior to a final building inspection, the applicant shall demonstrate that they have entered into a maintenance agreement with Stormwater Management, or another company that demonstrates they can meet the maintenance requirements of the manufacturer.

Grading and Erosion Control:

CWS Design and Construction Standards also regulate erosion control to reduce the amount of sediment and other pollutants reaching the public storm and surface water system resulting from development, construction, grading, excavating, clearing, and any other activity which accelerates erosion. Per CWS regulations, the applicant is required to submit an erosion control plan for City review and approval prior to issuance of City permits.

The Federal Clean Water Act requires that a National Pollutant Discharge Elimination System (NPDES) erosion control permit (1200-C) be issued for any development that will disturb one or more acres of land. Since this site is over five acres, the developer will be required to obtain an NPDES permit from the City prior to construction. This permit will be issued along with the site and/or building permit.

A final grading and erosion control plan shall be reviewed and approved by the Building Division as a part of the Site Permit.

Since this site will disturb more than one acre of land, a 1200-C permit is required. The documentation for this permit shall be completed by the applicant prior to issuance of the site permit.

Site Permit Required:

The applicant is required to obtain a Site Permit from the Building Division to cover all on-site private utility installations (water, sewer, storm, etc.) and driveway construction. This permit shall be obtained prior to commencing on site improvements.

Address Assignments:

The City of Tigard is responsible for assigning addresses for parcels within the City of Tigard and within the Urban Service Boundary (USB). An addressing fee in the amount of \$50.00 per address shall be assessed. This fee shall be paid to the City prior to issuance of the Site Permit.

For multi-tenant buildings, one address number is assigned to the building and then all tenant spaces are given suite numbers. The City is responsible for assigning the main address and suite numbers. This information is needed so that building permits for tenant improvements can be adequately tracked in the City's permit tracking system.

SECTION VIII. OTHER STAFF COMMENTS

The City of Tigard Long Range Planning Division was notified of the proposal but offered no comments at this time.

The City of Tigard Building Division has reviewed the proposal and notes that the site will be required to comply with all site accessibility requirements listed in the Oregon Structural Specialty Code.

The City of Tigard Public Works Department has reviewed the proposal and has offered comments that have been incorporated into this decision.

The City of Tigard Police Department has reviewed the proposal and has no objections to it.

The City of Tigard Water Department has reviewed the proposal and has offered comments that have been incorporated into this decision.

The City of Tigard Forester has reviewed the proposal and has offered the following comments:

1. LANDSCAPING AND SCREENING

18.745.030.C, Installation Requirements The installation of all landscaping shall be as follows:

- 1. All landscaping shall be installed according to accepted planting procedures.
- 2. The plant material shall be of high grade, and shall meet the size and grading standards of the American Standards for Nurberg Stock (ANSI Z-60, 1-1986, and any other future revisions); and
- 3. Landscaping shall be installed in accordance with the provisions of this title.
 - ◆ The accepted planting procedures are the guidelines described in the Tigard Tree Manual. These guidelines follow those set forth by the International Society of Arboriculture (ISA) tree planting guidelines as well as the standards set forth in the American Institute of Architects' Architectural Graphic Standards, 10th edition. In the Architectural Graphic Standards there are guidelines for selecting and planting trees based on the soil volume and size at maturity. Additionally, there are directions for soil amendments and modifications.
 - ◆ In order to develop tree species diversity onsite it is recommended that the following guidelines be followed:
 - No more than 30% of any one family be planted onsite.
 - No more than 20% of any one genus be planted onsite.
 - No more than 10% of any one species be planted onsite.

18.745.030.E, Protection of Existing Landscaping. Existing vegetation on a site shall be protected as much as possible:

1. The developer shall provide methods for the protection of existing vegetation to remain during the construction process; and
2. The plants to be saved shall be noted on the landscape plans (e.g., areas not to be disturbed can be fenced, as in snow fencing which can be placed around the individual trees).

See comments under "Tree Removal".

18.745.030.G, Conditions of Approval of Existing Vegetation. The review procedures and standards for required landscaping and screening shall be specified in the conditions of approval during development review and in no instance shall be less than that required for conventional development.

See recommended conditions of approval at the end of this memorandum.

18.745.040, Street Trees

A. Protection of existing vegetation. All development projects fronting on a public street, private street or a private driveway more than 100 feet in length approved after the adoption of this title shall be required to plant street trees in accordance with the standards in Section 18.745.040.C.

- ◆ The accepted planting procedures are the guidelines described in the Tigard Tree Manual. These guidelines follow those set forth by the International Society of Arboriculture (ISA) tree planting guidelines as well as the standards set forth in the American Institute of Architects' Architectural Graphic Standards, 10th edition. In the Architectural Graphic Standards there are guidelines for selecting and planting trees based on the soil volume and size at maturity. Additionally, there are directions for soil amendments and modifications.
- ◆ In order to develop tree species diversity onsite it is recommended that the following guidelines be followed:
 - No more than 30% of any one family be planted onsite.
 - No more than 20% of any one genus be planted onsite.
 - No more than 10% of any one species be planted onsite.

2. TREE REMOVAL

18.790.030, Tree Plan Requirement

A. Tree plan required. A tree plan for the planting, removal and protection of trees prepared by a certified arborist shall be provided for any lot, parcel or combination of lots or parcels for which a development application for a subdivision, partition, site development review, planned development or conditional use is filed. Protection is preferred over removal wherever possible.

B. Plan requirements. The tree plan shall include the following:

1. Identification of the location, size and species of all existing trees including trees designated as significant by the city;
2. Identification of a program to save existing trees or mitigate tree removal over 12 inches in caliper. Mitigation must follow the replacement guidelines of Section 18.790.060D, in accordance with the following standards and shall be exclusive of trees required by other development code provisions for landscaping, streets and parking lots:
 - a. Retention of less than 25% of existing trees over 12 inches in caliper requires a mitigation program in accordance with Section 18.790.060D of no net loss of trees;

- b. **Retention of from 25% to 50% of existing trees over 12 inches in caliper requires that two-thirds of the trees to be removed be mitigated in accordance with Section 18.790.060D;**
 - c. **Retention of from 50% to 75% of existing trees over 12 inches in caliper requires that 50 percent of the trees to be removed be mitigated in accordance with Section 18.790.060D;**
 - d. **Retention of 75% or greater of existing trees over 12 inches in caliper requires no mitigation.**
- 3. Identification of all trees which are proposed to be removed;**
- 4. A protection program defining standards and methods that will be used by the applicant to protect trees during and after construction.**
- ◆ As required, the applicant submitted a tree plan that was conducted by Walt Knapp. The plan contains four out of the four required components of a tree plan, and, is therefore, acceptable.
 - ◆ It is difficult to determine if any construction will occur within the trees' driplines. If construction does occur within the driplines, the Project Arborist must explain or set guidelines for how the tree roots will be protected.

Below are my suggestions for the applicant to follow for tree protection guidelines:

- ◆ Any tree that is located on property adjacent to the construction project that will have more than 15% of its root system disturbed by construction activities shall also be protected. These trees should be identified, and a plan on how to protect the trees' critical root zones should be completed.
- ◆ A note shall be placed on the final set of plans indicating that equipment, vehicles, machinery, grading, dumping, storage, burial of debris, or any other construction-related activities shall not be located inside of any tree protection zone or outside of the limits of disturbance where other trees are being protected.
- ◆ All tree protection devices shall be:
 - Visible.
 - Constructed of 11 Gauge steel chain-link fencing supported on at least 2" O.D. steel posts. Each post shall be no less than four feet high from the top of grade. Each post shall be driven into the ground to a depth of no less than two and a half feet below grade. Each post shall be spaced no further apart than four feet.
 - Between each post, securely attached to the chain-link fencing, shall be a sign indicating that the area behind the fencing is protected and no construction activity, including material storage, may occur behind the fencing.
 - Inspected and approved in the field by the project arborist and City Forester prior to clearing, grading, or the beginning of construction.
 - Remain in place and maintained until all construction is completed and a final inspection is conducted.
- ◆ To determine the size of the tree protection zone (TPZ) the project arborist should follow the guidelines listed below:
 - For individual trees follow the trunk diameter method. For every one-inch of diameter at breast height (DBH), or 4 ½ feet above the ground, allow 12 inches of space from the trunk of the tree. For example, a tree that is 15" at DBH must have at least 15' of tree protection zone around the entire canopy of the tree.

- For groups of trees the tree protection zone must be outside of the drip line of the trees on the edge of the stand. If there are conifers with narrow crowns on the edge of the stand follow the trunk diameter method or the drip line method, whichever is greater.
 - Calculate and follow the Optimal Tree Protection Zone calculation as shown in *"Trees and Development: A Technical Guide to Preservation of Trees During Land Development"* by Nelda Matheny and James R. Clark.
 - The project arborist may propose an alternate method for the establishment of the TPZ, provided the effort is coordinated with the City Forester.
- ◆ If it is necessary to enter the tree protection zone at any time with equipment (trucks, bulldozers, etc.) the project arborist and City Forester must be notified before any entry occurs. Before entering the TPZ, the project arborist and City Forester shall determine the method by which entry can occur, along with any additional tree protection measures.
 - ◆ Prior to issuance of building permits, the Project Arborist shall submit a final certification indicating the elements of the Tree Protection Plan were followed and that all remaining trees on the site are healthy, stable and viable in their modified growing environment.

RECOMMENDED CONDITIONS OF APPROVAL:

1. The applicant shall submit a final Tree Protection Plan that shows exactly how far the tree protection fencing will be from the face of each protected tree (including those on neighboring properties where construction occurs within the trees' driplines) that will be impacted by construction activities within its dripline. The applicant, through their Project Arborist, shall justify the close proximity of the construction activities to the trees. He shall certify that the activities will not adversely impact the overall and long-term health and stability of each tree. Any construction that occurs within the neighboring trees' driplines should be justified by the applicant and approved by the City Forester and neighboring property owner(s). Work may proceed within the driplines only with the approval of the City Forester.
2. The Project Arborist shall submit written reports to the City Forester, at least, once every two weeks, as he monitors the construction activities and progress. These reports should include any changes that occurred to the TPZ as well as the condition and location of the tree protection fencing. If the amount of TPZ was reduced then the Project Arborist shall justify why the fencing was moved, and shall certify that the construction activities to the trees did not adversely impact the overall and long-term health and stability of the tree(s). If the reports are not submitted or received by the City Forester at the scheduled intervals, and if it appears the TPZ's or the Tree Protection Plan is not being followed by the contractor, the City can stop work on the project until an inspection can be done by the City Forester and the Project Arborist. This inspection will be to evaluate the tree protection fencing, determine if the fencing was moved at any point during construction, and determine if any part of the Tree Protection Plan has been violated.
3. Prior to issuance of building permits the Project Arborist shall submit to the City Forester a final report describing how the Tree Protection Plan was implemented and detailing any failures to comply with the Tree Protection Plan. The report shall also describe the health of all remaining trees on the site, with details provided as to any tree that has had its root system disturbed or that has otherwise been damaged.

If you have any questions please call me anytime. Thank you for requesting my comments on this project.

SECTION IX. AGENCY COMMENTS

The Tualatin Valley Fire and Rescue has reviewed the proposal and endorses this proposal predicated on the following criteria and conditions of approval:

- ◆ 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. 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. (UFC Sec. 902.2.1)

All buildings within the proposed development meet this standard.

- ◆ Dead end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround. Diagrams of approved turnarounds are available from the fire district. (UFC Sec. 902.2.2.4)

No dead end access roads are proposed.

- ◆ When buildings are completely protected with an approved automatic fire sprinkler system, the requirements for fire apparatus access may be modified as approved by the Chief. (UFC Sec. 902.2.1 Exception 1)
- ◆ Where there are 25 or more dwelling units, vehicle congestion, adverse terrain conditions or other factors as determined by the Chief of the fire department not less than two approved means of access shall be provided to the city/county roadway or access easement. Exceptions may be allowed for approved automatic sprinkler system. (UFC Sec. 902.2.1)

Although two distinct access points are provided, they do not meet the minimum separation distance of one half of the diagonal measurement of the site. This deficiency will be accepted due to the installation of fire sprinkler systems in all buildings.

- ◆ Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (15 feet for one or two dwelling units and out buildings), and an unobstructed vertical clearance of not less than 13 feet 6 inches. (UFC Sec. 902.2.2.1)
- ◆ Fire apparatus access roads shall be of an all-weather surface that is easily distinguishable from the surrounding area and is capable of supporting not less than 12,500 pounds point load (wheel load) and 50,000 pounds live load (gross vehicle weight). You may need to provide documentation from a registered engineer that the design will be capable of supporting such loading. Documentation from a registered engineer that the finished construction is in accordance with the approved plans or the requirements of the Fire Code may be requested. (Design criteria on back) (UFC Sec. 902.2.2)
- ◆ The inside turning radius and outside turning radius shall be not less than 25 feet and 45 feet respectively, measured from the same center point. (UFC Sec. 902.2.2.3) – (See diagrams on back)
- ◆ 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. (UFC Sec. 902.2.4) Signs shall read “NO PARKING - FIRE LANE - TOW AWAY ZONE, ORS 98.810 - 98.812” 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 black or red letters and border on a white background. (UFC Sec. 901.4.5.1)

Due to width of 24 feet, the entire area of the private roadway system shall be designated a fire lane and posted "No Parking".

- ◆ Private fire apparatus access roadway grades shall not exceed an average grade of 10 percent with a maximum grade of 15 percent for lengths of no more than 200 feet. Intersections and turnarounds shall be level (maximum 5%) with the exception of crowning for water run-off. Public streets shall have a maximum grade of 15%. (UFC Sec. 902.2.2.6)
- ◆ The required fire flow for the building shall not exceed 3,000 gallons per minute (GPM) or the available GPM in the water delivery system at 20 psi, whichever is less. A worksheet for calculating the required fire flow is available from the Fire Marshal's Office. (UFC Sec. 903.3)
- ◆ Fire hydrants for single family dwellings, duplexes and sub-divisions, shall be placed at each intersection. Intermediate fire hydrants are required if any portion of a structure exceeds 500 feet from a hydrant at an intersection as measured in an approved manner around the outside of the structure and along approved fire apparatus access roadways. Placement of additional fire hydrants shall be as approved by the Chief. (UFC Sec. 903.4.2.2)

A maintenance agreement will be required for the fire hydrant system.

- ◆ Fire hydrants shall be located not more than 15 feet from an approved fire apparatus access roadway. (UFC Sec. 903.4.2.4)
- ◆ Fire hydrant locations shall be identified by the installation of reflective markers. The markers shall be blue. They shall be located adjacent and to the side of the centerline of the access road way that the fire hydrant is located on. In case that there is no center line, then assume a centerline, and place the reflectors accordingly. (UFC Sec. 901.4.3)
- ◆ The minimum available fire flow for single family dwellings and duplexes 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 UFC Appendix Table A-III-A-1. (UFC Appendix III-A, Sec. 5)
- ◆ Approved fire apparatus access roadways and fire fighting water supplies shall be installed and operational prior to any other construction on the site or subdivision. (UFC Sec. 8704)

<http://www.tvfr.com/Departments/FireMarshal/newconstruction.htm>

QWEST has reviewed the proposal and notes that the site is outside their service territory.

Tri-Met has reviewed the proposal and has no comments.

Washington County has reviewed the proposal and has no comments.

Clean Water Services, Tualatin Valley Water District, Metro, PGE, Tigard Tualatin Schools, and NW Natural were all notified of the proposal and did not provide comments.

SECTION X. PROCEDURE AND APPEAL INFORMATION

Notice:

Notice was posted at City Hall and mailed to:

- The applicant and owners
- Owner of record within the required distance
- Affected government agencies

Final Decision:

THIS DECISION IS FINAL ON SEPTEMBER 1, 2004 AND BECOMES EFFECTIVE ON SEPTEMBER 17, 2004 UNLESS AN APPEAL IS FILED.

Appeal:

The decision of the Director (Type II Procedure) or Review Authority (Type II Administrative Appeal or Type III Procedure) is final for purposes of appeal on the date that it is mailed. Any party with standing as provided in Section 18.390.040.G.1. may appeal this decision in accordance with Section 18.390.040.G.2. of the Tigard Community Development Code which provides that a written appeal together with the required fee shall be filed with the Director within ten (10) business days of the date the notice of the decision was mailed. The appeal fee schedule and forms are available from the Planning Division of Tigard City Hall, 13125 SW Hall Boulevard, Tigard, Oregon 97223.

Unless the applicant is the appellant, the hearing on an appeal from the Director's Decision shall be confined to the specific issues identified in the written comments submitted by the parties during the comment period. Additional evidence concerning issues properly raised in the Notice of Appeal may be submitted by any party during the appeal hearing, subject to any additional rules of procedure that may be adopted from time to time by the appellate body.

THE DEADLINE FOR FILING AN APPEAL IS AT 5:00 PM ON SEPTEMBER 16, 2004.

Questions:

If you have any questions, please call the City of Tigard Planning Division, Tigard City Hall, 13125 SW Hall Boulevard, Tigard, Oregon at (503) 639-4171.

PREPARED BY: _____
Morgan Tracy
Associate Planner

September 1, 2004
DATE

APPROVED BY: _____
Richard Bewersdorff
Planning Manager

September 1, 2004
DATE