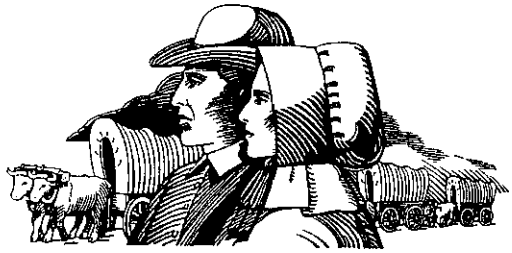
CITY OF OREGON CITY

PLANNING COMMISSION

320 WARNER MILNE ROAD OREGON CITY, OREGON 97045
TEL 657-0891 FAX 657-7892



AGENDA

City Commission Chambers - City Hall
May 14, 2001 at 7:00 P.M.

PLANNING COMMISSION MEETING

7:00 p.m. 1. **CALL TO ORDER**

7:05 p.m. 2. **PUBLIC COMMENT ON ITEMS NOT LISTED ON AGENDA**

7:10 p.m. 3. **APPROVAL OF MINUTES**: April 23, 2001

7:15 p.m. 4 **PUBLIC HEARINGS:**

7:20 p.m. **PD 00-01/ WR 00-13;** Lowell Wittke; Approval of a 31-unit dwelling Planned Unit Development including 17 single-family homes and 14 duplex units; 16281 S. Oak Tree Terrace; Clackamas County Map # 2S-2E-28A Tax Lots 1712, 1714, 1717 & 1722

8:00 p.m. **CU 01-02;** City of Oregon City; Conditional Use for the creation of a new Amtrak station and parking lot; 1799 Washington Street, Clackamas County Map 2-2E-29, Tax Lot 1402

8:05 p.m. **CU 01-01**; Milstead & Associates, Inc.; Conditional Use to develop a high school campus; 19751 Beavercreek Road, Clackamas County Map 3-2E-09D Tax Lots 500, 600, 1000, 1001, 1200, & 1300

8:45 p.m. **VR 01-01**; Milstead & Associates, Inc; Variances to increase the maximum height requirement on the high school campus for a gymnasium building from 35 feet to 56 feet and for a theater/auditorium building from 35 feet to 52 feet; and to reduce the minimum number of required bicycle parking spaces from 190 spaces to 20 spaces; 19751 Beavercreek Road, Clackamas County Map 3-2E-09D Tax Lots 500, 600, 1000, 1001, 1200, & 1300

9:00 p.m. **AN 01-02;** City of Oregon City; Annexation of Jessie Court park property into the City Limits; Clackamas County Map # 3-2E-07D, Tax Lot 501

(Continued on next page)

9:30 p.m. **ZC 00-02(Continued);** Mary Johnson /Sunnyside Construction & Development, Inc.; Zone change from R-10 to R-8 Single-Family Dwelling District/ 14958 S. Holcomb Blvd; Clackamas County Map # 2-2E-28A, Tax Lots 2000 & 2100

9:35 p.m. **OLD BUSINESS**

9:40 p.m. 5. **NEW BUSINESS**

A. Staff Communications to the Commission

9:45 p.m. **B. Comments by Commissioners**

9:50 p.m. 6. **ADJOURN**

NOTE: HEARING TIMES AS NOTED ABOVE ARE TENTATIVE. FOR SPECIAL ASSISTANCE DUE TO DISABILITY, PLEASE CALL CITY HALL, 657-0891, 48 HOURS PRIOR TO MEETING DATE.

DRAFT

CITY OF OREGON CITY
PLANNING COMMISSION MINUTES
April 23, 2001

COMMISSIONERS PRESENT
Chairperson Carter
Commissioner Bailey
Commissioner Mengelberg
Commissioner Orzen
Commissioner Surratt

STAFF PRESENT
Maggie Collins, Planning Manager
Colin Cooper, Senior Planner
Bob Cullison, Engineering Manager
Bill Kabeiseman, City Attorney
John Replinger, Consulting Engineer
Barbara Shields, Senior Planner
Jonathan Kahnoski, Recording Secretary

1. CALL TO ORDER

Chairperson Carter called the meeting to order.

2. PUBLIC COMMENT ON ITEMS NOT LISTED ON AGENDA

None.

3. APPROVAL OF MINUTES: April 9, 2001

Commissioner Bailey moved to accept the minutes of the April 9, 2001 Planning Commission meeting with no changes, **Commissioner Orzen** seconded.

Ayes: Bailey, Carter, Mengelberg, Orzen, Suratt; Nays: None.

4. PUBLIC HEARINGS

Chairperson Carter reviewed the public hearing process and stated the time limitations. **Chairperson Carter** asked if any Commissioner had visited the sites or had a conflict of interest. Several Commissioners stated they were familiar with one or another site, but none reported having a conflict of interest. **Chairperson Carter** also pointed out the availability of copies of the Planning Commission's Code of Conduct.

OPEN OF PUBLIC HEARING (Legislative and Quasi-Judicial)

ZC 01-01; Mildren Design Group / Rezone parcel from "R-6" Single Family Dwelling District to "LO" Limited Office District. 108 Beverly Drive, Clackamas County Map 3-2E-05CA Tax Lot 400

STAFF REPORT

Colin Cooper reviewed the staff report, pointing out that the subject site already has a Comprehensive Plan designation of "O" Limited Office, and that the "LO" zoning designation is intended to implement the Comprehensive Plan. **Mr. Cooper** stated that the staff has reviewed the approval criteria that include Comprehensive Plan policy, compatibility, public facility availability, and transportation impacts, and has found that the proposed zone change meets these criteria. **Mr. Cooper** also noted that the scope of this request is to change the designation and that the staff has not reviewed any site-specific development. The "LO" Limited Office designation is intended to provide a limited-office use in the form of professional offices, medical offices, and permitted uses in the "RA2" zone to provide a buffer between residential and commercial areas.

Mr. Cooper pointed out that the staff has received a number of letters from adjoining neighbors concerning potential impact of this change on their neighborhood; however, staff will address direct physical neighborhood compatibility with the site plan review process. **Mr. Cooper** reminded anyone from the Beverly Drive neighborhood that the Planning Commission's decision is to recommend to the City Commission, who will make the final decision. **Mr. Cooper** urged interested persons to also attend the City Commission meeting tentatively scheduled for May 16, 2001.

Chairperson Carter asked about language in the staff report that made it unclear whether any building on the site would front Beverly Drive or Molalla Avenue. **Mr. Cooper** replied that the visibility of the building would be to Molalla Avenue, but that access to the building would have to be from Beverly.

TESTIMONY IN FAVOR

Mark Pruett, Harper Houf Righellis, Inc, 5200 SW Macadam Ave, Suite 580, Portland, OR 97201

Mark Pruett reiterated what Mr. Cooper stated in his report, that the proposed change merely brings the site into compliance with the Comprehensive Plan.

TESTIMONY IN OPPOSITION

Mark Miller, 114 Beverly Drive, Oregon City, OR 97045

Mark Miller stated that he lives right next to the site. Mr. Miller explained that he listed that he was representing himself, but that he had discussed the matter with most of his neighbors. Mr. Miller said that the general consensus is that the change will create additional traffic problems for the neighborhood and that their property values will decrease. He added that he did not wish to have an office building that allows a view into his back yard. **Chairperson Carter** explained that the neighborhood's concerns would be better raised during the design review process. She, and **Maggie Collins**, both stated

that Mr. Miller may appear before the City Commission where the final decision on this zone change request is made.

Kathy Hogan, 19721 S. Central Point Road, Oregon City, OR 97045

Kathy Hogan explained that she does not live in the neighborhood and has no feeling for or against the building. However, she said that her experience with Planning Commission process is that it is important for citizens to get their opposition on the record before any decision is made. She also expressed concerned about the height of any building.

Chairperson Carter explained that the Planning Commission is not allowed to address any issues concerning the building itself, only those issues having to do with changes to the Comprehensive Plan or the zoning designation. **Ms. Collins** advised that it is preferable for Commissioners to keep their deliberations at that level. She added that the staff is taking note of the neighborhood's concerns.

Commissioner Bailey pointed out that design is everything in resolving neighborhood concerns. **Chairperson Carter** encouraged the applicant and the neighborhood to work together for a satisfactory outcome.

Commissioner Surratt asked if the applicant's design proposal is likely to come before the Planning Commission. **Mr. Cooper** replied that he could not speculate about that, but did not think it would.

APPLICANT'S REBUTAL

Mike Pruett stated that the architect is more than willing to meet with neighboring property owners to work out any specific issues.

CLOSE OF PUBLIC HEARING

DELIBERATION BY COMMISSIONERS

Commissioner Bailey said that this is a straightforward decision to bring the zoning designation in line with the Comprehensive Plan. He said that the Limited Office designation would bring much less traffic than a commercial establishment open much longer hours.

Commissioner Surratt expressed the desire to see the intended design, but she will trust the City staff to make correct design decisions.

Commissioner Bailey moved to approve recommendation of ZC 01-01 as written and with the finding of facts in the staff report. **Commissioner Orzen** seconded.

Ayes: Bailey, Mengelberg, Orzen, Surratt, Carter; Nays: None

OPEN OF PUBLIC HEARING

PZ 00-01; Morris Womack / Amend the City of Oregon City Comprehensive Plan Map from an Industrial designation to a Limited Office designation. 19988 Molalla Avenue, Clackamas County Map 3-2E-9C Tax Lots 500 & 501

STAFF REPORT

Colin Cooper reviewed the staff report. He noted that the zone change would not adversely impact the original intent of creating jobs that was behind the "CI" designation, and that the site is so small as to not be suitable as an industrial property.

Commissioner Mengelberg asked how much of the site remains to the west of the creek that would be developable. **Mr. Cooper** estimated one third of the site.

Commissioner Surratt asked if a PZ application is truly quasi-judicial. **Mr. Cooper** explained that, in this case, it is because this request is site-specific.

Chairperson Carter noted that the staff report mentioned a traffic signal being installed with the development of this site. She said that the surrounding neighbors have raised the need for a signal there, and was wondering if the staff were thinking of adding a signal to development requirements for this site.

Chairperson Carter asked if enough money has been accumulated by development to pay for a new traffic signal. **Mr. Cullison** said that he was unaware of a need for a traffic signal being triggered as yet, but if development of this site would trigger the need, they would pursue the matter.

Chairperson Carter emphasized, for the record, that the need for a new traffic signal at Glen Oak Road is becoming clear.

TESTIMONY IN FAVOR

Dane Segrin, Realtor, Ken Hoffman Realty, 15807 Lucky Lane, Oregon City, OR 97045

Dane Segrin explained that he represents both the property owner/seller and the buyer/developer. He said that the plan is to develop the tax lot closest to Molalla Avenue and to stay as far away from Caulfield Creek as possible. He said that the plan is for a

medical clinic that is both appealing and useful. He said they expect to generate much less traffic than other uses.

Commissioner Mengelberg asked if the developer considered any industrial uses for the property. **Mr. Segrin** said that he had a developer with an industrial use for the site, but the associated heavy equipment that such use would generate caused Mr. Womack, the property owner, to be not interested. Mr. Womack was interested in seeing his property used for a medical office, but was concerned about enduring a lengthy zone change process.

Chairperson Carter noted that the design showed parking to the front of the building, but that the general rule is to have parking to the rear. Mr. Segrin said that the design was not finalized, and the parking could be moved subject to any regulations applicable to a medical clinic building.

Morris Womack, 19988 S. Molalla Avenue, Oregon City, OR

Morris Womack said that the Creek is no longer a creek, but has been officially designated storm drainage.

TESTIMONY IN OPPOSITION

None

CLOSE OF PUBLIC HEARING

DELIBERATION BY COMMISSIONERS

Commissioner Mengelberg stated that, in principle, she is opposed to rezoning land designated for industrial use to other uses because of the severe shortage of industrial land and the need for increased assessed values and employment in Oregon City. However, she said she is sensitive to the limitations of this site for industrial use, and therefore can support this application.

Commissioner Bailey stated his agreement with Commissioner Mengelberg, and also noted that a medical office use, designed properly, might make a nice welcoming entrance to Oregon City.

Chairperson Carter encouraged the applicants to take into consideration the visual impact of their development.

Commissioner Surratt moved to recommend approval of PZ 00-01 based upon staff's findings of fact. **Commissioner Orzen** seconded.

Ayes: Bailey, Mengelberg, Orzen, Surratt, Carter; Nays: None

OPEN OF PUBLIC HEARING

ZC 00-04; Morris Womack / Amend the Zoning Map from "CI" Campus Industrial zoning to "LO" Limited Office zoning. 19988 Molalla Avenue, Clackamas County Map 3-2E-9C Tax Lots 500 & 501

STAFF REPORT

Colin Cooper reviewed the staff's report. He asked that a letter from the Oregon Department of Transportation dated April 17, 2001 be entered into the record. The letter states that ODOT will not oppose this file, but will participate during the design review phase of the process.

TESTIMONY IN FAVOR

Commissioner Bailey commended to the developer's architect to look at ways they can minimize the impact of storm runoff.

TESTIMONY IN OPPOSITION

None

CLOSE OF PUBLIC HEARING

DELIBERATION BY COMMISSIONERS

Commissioner Bailey said that, having gone through the Comprehensive Plan change, it is clear that the requested use is appropriate. He stated that it is interesting that this may be the trigger that precipitates the kind of traffic signal improvements that residents along Glen Oak Road have long asked for.

Commissioner Surratt moved to recommend approval of ZC 00-04 based upon the staff's findings of fact. **Commissioner Bailey** seconded.

Ayes: Bailey, Mengelberg, Orzen, Surratt, Carter; Nays: None

OPEN OF PUBLIC HEARING

CU 01-03; Milstead and Associates and the Oregon City School District / Approval of an approximately 41,000 square foot addition, which includes two new classrooms, four new restrooms, and an elevator to the Park Place Elementary School. 16075 Front Avenue, Clackamas County Map 2-2E-20DD, Tax Lot 2800

STAFF REPORT

Barbara Shields reviewed the staff report. She reminded the Commissioners that the scope of their decision is limited to the proposed use and its compatibility with the surrounding neighborhood. She said the staff is asking the applicant to remove all the parking spaces on the west side of Front Street.

Commissioner Mengelberg asked if the reason to eliminate the parking spaces is the documented safety issue. **Ms. Shields** said that it is. **Commissioner Mengelberg** asked if the bus-loading zone would remain on Front Street, and **Ms. Shields** said it would.

TESTIMONY IN FAVOR

Barry Rotrock, Superintendent of Oregon City Schools, 22489 S. Penman Road, Oregon City, OR 97045

Barry Rotrock said he would provide an overview of the requested changes; others would be answering the more specific questions. Mr. Rotrock explained that the School District will have $67.5 million worth of work before the Planning Commission over the next three years. In the proposals this evening, the work involves fire, life, and safety upgrades, Americans with Disabilities Act upgrades, seismic upgrades to buildings, and additional classrooms.

Barry Rotrock addressed the parking issue mentioned. He said they would probably change the plan to keep handicapped parking on Front Street.

David Soderstrom and Marlene Gillis, Soderstrom Architects, 1200 NW Naito Parkway #410, Portland, OR 97209

David Soderstrom explained the specific construction work to be done. He pointed out that the staff report may have a mistake in referring to 41,000 square feet; he said the project is 2,980 square feet.

Commissioner Mengelberg asked if the parking was moved to La Rae Street, would handicapped persons be able to enter the school? Marlene Gillis said that there is a building entrance on La Rae Street, but it requires a person to pass through the cafeteria and go up a flight of stairs. She stated that the school has a security policy that requires everyone to go first to the office to check in before going anywhere else in the building. She said that those are the reasons for keeping the handicapped parking on Front Street.

Chairperson Carter asked about sidewalks and curbing around the perimeter of the school property, what exists currently and what improvements are planned. Ms. Gillis said that currently, on La Rae Street, there are no sidewalks but there is parking. She said they did not believe they would be required to do any right-of-way improvements because they were not going to add any parking. Ms. Gillis explained that sidewalks

exist on the non-school side of La Rae Street, and that they planned to add crosswalks at the two ends of the property.

TESTIMONY IN OPPOSITION

None

CLOSE OF PUBLIC HEARING

DELIBERATION BY COMMISSIONERS

Commissioner Surratt commended the citizens of Oregon City for recognizing the need to upgrade school buildings.

Commissioner Bailey said that he shared Commissioner Surratt's sentiments and that he is impressed with the magnitude of the School District's undertaking.

Commissioner Surratt questioned whether or not Basic Fact #1 is part of the findings of fact. She pointed out that Basic Fact # 2 should be corrected to be 'two' new classrooms. **Commissioner Bailey** explained that Basic Fact #1 is correct, that the 39,624 square feet shown there is existing square footage. **Maggie Collins** clarified that the 3,248 square feet referenced in Basic Fact #2 should be 2,980 square feet.

Commissioner Bailey noted that the statement in Basic Fact #3 that the site is flat is not correct. **Maggie Collins** noted a reference in the applicant's documents indicate the building pad is flat.

Commissioner Bailey moved to recommend approval of CU 01-03 based upon the findings of fact and in accordance with staff conditions of approval, except that condition #2 states that handicapped parking is to be decided by consultation between the applicant and the Engineering Division. **Commissioner Orzen** seconded.

Ayes: Bailey, Mengelberg, Orzen, Surratt, Carter; Nays: None

OPEN OF PUBLIC HEARING

CU 01-04; Milstead and Associates and the Oregon City School District / Approval of an approximately 7,800 square foot addition, including six new classrooms, to the Holcomb elementary School. 14625 S. Holcomb Blvd, Clackamas County Map 2-2E-28A, Tax Lot 1100

STAFF REPORT

Barbara Shields reviewed the staff report. She stated that there are no significant impacts on the surrounding properties, and the proposal is basically compatible with the area.

TESTIMONY IN FAVOR

Barry Rotrock, Superintendent of Oregon City Schools, 22489 S. Penman Road, Oregon City, OR 97045

Barry Rotrock said that one of the School District's intentions at each of the proposed sites is to improve parking and circulation, and they believe that that is what they are doing at this.

Commissioner Surratt asked what are the possibilities that the addition of the new classrooms will allow the district to remove the modular classrooms. Mr. Rotrock replied that the modular classrooms are in such bad shape that they are no longer moveable. He said the current plan is to occupy them where they are until they are no longer usable and then remove them.

David Soderstrom and Marlene Gillis, Soderstrom Architects, 1200 NW Naito Parkway #410, Portland, OR 97209

David Soderstrom described the major elements of the project. **Chairperson Carter** asked where the new fire lane is to be located, and **Ms. Gillis** indicated the location on the drawing.

Commissioner Bailey asked if there was, in addition to the new construction, other kinds of upgrades to be done at this site. **Mr. Soderstrom** explained that there is a significant amount of electrical and mechanical upgrades, new wiring for telephones and safety, fire alarms, etc. **Commissioner Bailey** asked how the dollars break out new additions versus upgrades. **Mr. Soderstrom** said that it is roughly half the money for new construction and half for upgrades, but that it varies from school-to-school. He stated that the intent is to get maximum value for the money available, adding that they have struggled in particular with some of the improvements required by the City offsite because that is money taken away from the school structures. **Mr. Rotrock** offered an overall breakdown of how the money will be spent:

Total bond measure:	$67.5 million
High school, other district improvements, and the stadium:	$47.0 million
Classroom additions	$ 4.0 million
Fire, life, and safety code upgrades, seismic and ADA upgrades	$15.0 million

TESTIMONY IN OPPOSITION

None

CLOSE OF PUBLIC HEARING

DELIBERATION BY COMMISSIONERS

Commissioner Bailey moved that CU 01-04 be approved, based upon the staff's findings of fact and conditions. **Commissioner Mengelberg** seconded.

Ayes: Bailey, Mengelberg, Orzen, Surratt, Carter; Nays: None

OPEN OF PUBLIC HEARING

CU 01-05; Milstead and Associates and the Oregon City School District / Approval of an approximately 5,052 square foot addition, including four new classrooms and two restrooms to the Gaffney Lane Elementary School. 13521 Gaffney Lane, Clackamas County Map 3-2E-8BD, Tax Lot 4200

STAFF REPORT

Barbara Shields reviewed the staff report. She said that there are no major issues regarding impact on the area. In response to a question from **Chairperson Carter**, Ms. Shields explained that the list of three areas of concern from the neighborhood association is part of Exhibit 5C of the packet.

Commissioner Bailey asked if Gaffney Lane goes through to connect with Meyers Road. Ms. Shields said that Gaffney Lane does connect with Meyers Road. Mr. Soderstrom indicated that Glenview Court connects with Gaffney Lane as well.

Commissioner Surratt asked Ms. Shields that the neighborhood's concerns be taken into account during the site design review process. **Ms. Shields** said that that is the Planning Division's standard procedure. She confirmed that they notice the neighborhood association.

TESTIMONY IN FAVOR

Barry Rotrock, Superintendent of Oregon City Schools, 22489 S. Penman Road, Oregon City, OR 97045

Barry Rotrock explained the main elements of the project. He addressed the three neighborhood concerns:

Mr. Rotrock said they would need to get more information because the district believes that Gaffney Lane has one of the better traffic circulation patterns.

1. Mr. Rotrock said the half-street improvements will be done.
2. Mr. Rotrock said the issue of parking on McVey, a private lane, is about the School District, which owns about a twenty-foot wide stretch of grass between McVey and the schoolyard's cyclone fence. He explained that the parking problem arises evenings and weekends when others come to use the soccer fields on the school grounds. He said they have considered various solutions, but wanted to work with the nearby property owners before implementing anything. He agreed, in response to a question from **Chairperson Carter,** that the new parking lot should alleviate the problem along McVey.

David Soderstrom and Marlene Gillis, Soderstrom Architects, 1200 NW Naito Parkway #410, Portland, OR 97209

David Soderstrom highlighted the major elements of the project, and further described where the new parking would be.

Derek Beneville, 19783 Castleberry Loop, Oregon City, OR 97045, representing the Gaffney Lane Neighborhood Association

Derek Beneville explained that the neighborhood association is looking forward to seeing the design plans, especially the half-street improvements.

TESTIMONY IN OPPOSITION

None

CLOSE OF PUBLIC HEARING

DELIBERATION BY COMMISSIONERS

Commissioner Surratt moved approval of CU 01-05 based upon the staff's findings of fact and the conditions: (1) the applicant is responsible for the project's compliance to Engineering Policy 00-01 (Exhibit 6); and (2) the applicant shall work with the neighborhood association to address the concerns raised in Exhibit 5C. **Commissioner Mengelberg** seconded.

Chairperson Carter said she was concerned that condition #2 might be interpreted to mean that the neighborhood association could make demands that the applicant must fulfill. **Ms. Collins and Commissioner Bailey** suggested that the word "address" did not give supremacy to either side.

Ayes: Bailey, Mengelberg, Orzen, Surratt, Carter; Nays: None

OPEN OF PUBLIC HEARING

CU 01-06; Milstead and Associates and the Oregon City School District / Approval of an approximately 5,000 square foot addition, which includes four new classrooms and two new restrooms to the McLoughlin Elementary School. 19230 South End Road, Clackamas County Map 3-1E-12AC, Tax Lot 4400

STAFF REPORT

Barbara Shields presented the staff report. She said that there is a joint-use agreement between the School District and the City of Oregon City concerning the uses, the physical improvements and management of a portion of the McLoughlin Elementary School site as a public use recreation area managed by the Oregon City Parks and Recreation Department. She said the staff recommends approval with conditions. She said that, of the conditions listed in Exhibit 1, the staff wants to delete #1 because they will address this concern during the site plan review; and to modify condition #3a to add a five-foot high fence to the landscape buffer. Ms. Shields directed the Commissioners' attention to Exhibit 7, in particular to the proposed landscape buffer between the proposed new parking and the existing walkway. She introduced into the record a letter from the neighborhood association that was received only today. The letter was identified as Exhibit 9.

TESTIMONY IN FAVOR

Barry Rotrock, Superintendent of Oregon City Schools, 22489 S. Penman Road, Oregon City, OR 97045

Barry Rotrock described the major elements of the project. He said that this project will make a significant improvement in traffic circulation, in particular separating where parents drop off and pick up their children from where buses unload and load. Mr. Rotrock asked that Condition 3a not require a landscape buffer but allow the School District to work through the site design process to find a solution. He said the proposed landscape barrier creates a major safety issue because it blocks; he said the fence was a much better idea.

Commissioner Mengelberg asked if Mr. Rotrock was thinking of a cyclone fence; Mr. Rotrock said yes, offering to make it a colored (green or black) fence.

Chairperson Carter asked if a bridge over the parking lot might be an alternative; Mr. Rotrock said the Americans for Disability Act would require a large spiral ramp, making that idea untenable.

Mr. Rotrock suggested that the letter from the neighborhood association, added as Exhibit 9, should not be a part of CU 01-06 because the letter raises concerns that have nothing to do with the School District's conditional use request, but with the proposed

joint use agreement between the District and the City. He said this proposed agreement will go through its own public hearing process and the letter should be a part of that process. **Chairperson Carter** asked for a ruling as to whether the letter should remain a part of the record or not. **William Kabeiseman, City Attorney,** stated that almost anything can be added to the record, and that the Commissioners can determine that something added is or is not relevant to the issue at hand.

David Soderstrom and Marlene Gillis, Soderstrom Architects, 1200 NW Naito Parkway #410, Portland, OR 97209

David Soderstrom said that their solution to the question of the safety of children crossing the parking lot is to create a marked crosswalk at a narrow point. He pointed out that the proposed new parking is for staff, and therefore traffic should be at a minimum by the time the children are arriving at the school. **Chairperson Carter** encouraged the architects to keep the route used by the children the most direct possible.

TESTIMONY IN OPPOSITION

M. Jeanne Militante, 11615 S. Salmonberry Drive, Oregon City, OR 97045

Ms. Militante said she disagreed with Mr. Rotrock's contention that the letter in Exhibit 9 is not applicable to the proposed conditional use. She pointed out that the Finding of Fact #3 and Exhibit #3, showing the proposed lavatories, are part of this request for conditional use. She said she did not have concerns about the school construction, but did have safety concerns about the twenty-two new parking places that will require the children to cross a parking lot to get to the school. Ms. Militante said she did not see what the safety improvement by the proposed turnaround for parents to drop off children might be because the automobiles would be forced to turn directly in front of the buses. Ms. Militante asked that notification of future hearings be sent to both Westling Farm and South End Neighborhood Associations as neighboring associations. She said the paperwork went to the South End Neighborhood Association but the oral presentation was made to the Westling Farm Neighborhood Association.
Kathy Hogan, 19721 S. Central Point Road, Oregon City, OR 97045

Kathy Hogan said that she shared Ms. Militante's concerns about the parking spaces. She questioned whether or not there is sufficient room for all of the planned changes around the Water Quality and Detention Facility. She said her experience with the Planning Commission process is that, when something is included in a proposed plan, even if it is not part of the specific conditional use request, the neighbors must raise their objections early on to insure that their objections will be taken into consideration later.

Chairperson Carter asked if the School District is allowing the Parks and Recreation Department to utilize some of the former's property then , the neighborhood's concerns would be valid when that plan undergoes a public hearing process. **Ms. Collins** said that the proposal has two parts: part 1 consists of whether or not the school district's specific proposal is compatible with the surrounding neighborhood; part 2 contains several other

issues that will be managed by the joint use agreement to be signed soon between the City and the school district concerning the future development of the playing fields. She said the staff is aware of the issues the neighbors are raising and believes they pertain more to the part 2, and that the staff has made note of what the neighbors have testified to this evening.

Chairperson Carter clarified that if and when the joint use agreement is signed between the City and the School District, that does not assume that any of the details of the site plan have been agreed to. Ms. Collins said she understands that the Parks and Recreation Department will prepare a master plan for the joint use agreement area that must go through a public hearing process.

Commissioner Bailey explained that he is aware of the joint use agreement being developed by the City and the school district, but that his decision this evening pertains only to the compatibility of the proposed changes to the surrounding neighborhood.

Commissioner Surratt, to clarify, asked that the decision tonight concerns the expansion of the school building, the expansion of the parking lot to the south, and the circular drive in front of the school, and that these constitute the total sum of the conditional use permit the Commissioners' are deciding tonight. **Ms. Shields** confirmed.

Commissioner Mengelberg asked about the conditions of approval discussed earlier, e.g., the fence versus the shrubs, are part of this permit. **Ms. Shields** agreed. She directed the Commissioners' attention to Exhibit 6C, the letter from the South End Neighborhood Association, recommending that the sidewalk be routed around the parking lot so children would not have to cross the new parking lot area.

Chairperson Carter reviewed the conditions of approval for CU 01-06:

Condition 1 – deleted

Condition 2 – standard procedure

Condition 3 – to be re-written to the effect that the concerns of child safety with regard to the proposed parking lot be addressed in a satisfactory manner at the time of site design review.

Commissioner Bailey stated that the exact wording of Condition #3 as provided by the staff is a little too specific.

Chairperson Carter suggested:

Condition 1 – deleted

Condition 2 – becomes Condition 1

Condition 3 – deleted

Condition 2 – new, added, to read: child safety issues regarding the parking lot be resolved during the design review process.

CLOSE OF PUBLIC HEARING

DELIBERATION BY COMMISSIONERS

Commissioner Mengelberg moved that CU 01-06 be approved based upon the findings of fact and with conditions in Exhibit 1 modified as follows:

1 – deleted

2 – becomes the new 1

3 – re-written, now 2, to say that child safety issues regarding the parking lot be resolved during the site review process.

Commissioner Orzen seconded.

Ayes: Bailey, Mengelberg, Orzen, Surratt, Carter; Nays: None

Barry Rotrock said that the School District would be sure to work with the neighborhood associations to resolve the issues raised.

OPEN OF PUBLIC HEARING

PD 00-01 / WR 00-013 (continued); Lowell Wittke / Approval of a 31-unit Planned Development including 17 single-family homes and 14 duplex units. 16281 S. Oak Tree Terrace, Clackamas county Map #2S-2E-28A, Tax Lots 1712, 1714, 1717 & 1722

STAFF REPORT

Maggie Collins said the staff requests a three-week continuance. She explained that the applicant was required to submit a great deal more information and the staff needs additional time to review that information. She said the staff recommends the Commissioners, by motion, continue this public hearing on PD 00-01 and WR 00-013 to date certain May 14, 2001.

Commissioner Bailey moved to continue the public hearing of PD 00-01 and WR 00-013 to date certain May 14, 2001. **Commissioner Orzen** seconded.

Ayes: Bailey, Mengelberg, Orzen, Surratt, Carter; Nays: None

6. OLD BUSINESS

7. NEW BUSINESS

A. Report on South Corridor Study and Light Rail Discussion

Maggie Collins said that this is an issue about which the staff wishes to keep the Commissioners informed. She said that, had tonight's meeting not had so many agenda items, they would have invited representatives from Metro to speak. Ms. Collins explained that the next meeting of the Study group is scheduled prior to the next Planning Commission meeting. She wanted to know if the Commissioners would like to schedule an additional meeting in time to be able to offer input to the Study group.

Chairperson Carter said that the Study group process has progressed pretty far and that there is not much value in the Planning Commission jumping in at this late date.

Commissioner Bailey said that his idea behind suggesting this as an agenda item was that he did not want to see Oregon City left out of the South Corridor Light Rail planning process. He did not want to rule out light rail, or commuter rail, service to Oregon City. However, he said he agreed with Chairperson Carter that it would not be fruitful to jump in now.

Maggie Collins said that the Commissioners could ask staff to draft a statement that the Commissioners could adopt and formally present to the Mayor. She suggested that they add this topic to the work session agenda.

Commissioner Bailey said he would encourage the idea of a study session concerning this topic. He said that he believed the only way real transit improvements are going to come to Oregon City is if Oregon City takes the lead in demanding those, and suggesting positive alternatives for those, and engaging Tri-Met as much as waiting for Tri-Met to come up with solutions.

Chairperson Carter said she thinks it would be helpful for the mayor to know that the Planning Commission is interested in this happening because of the "big-picture planning" the Commission faces.

Commissioner Mengelberg stated, as a point of information, that she spoke with Tri-Met in the last week, and confirmed that Tri-Met is considering bus mass transit to both downtown Oregon City and to Clackamas Community College.

Maggie Collins asked if the Commissioners did want the staff to prepare a statement.

Commissioner Bailey asked that the record show that the Commissioners are all nodding in agreement.

6. NEW BUSINESS

A. Staff Communications to the Commissioners.

1. Metro Survey of Local Elected Officials and Planning Commissioners
Commissioner Bailey said he had completed and returned his.
Chairperson Carter said that she had indicated on hers that she would like to hear directly from Mike Burton.

2. City Regulations on Demolitions and Tree-Cutting
Maggie Collins explained that the staff had not had time to prepare a proper packet for the Commissioners' consideration.

B. Comments by Commissioners

Commissioner Bailey and **Chairperson Carter** complemented the staff on the volume and quality of work they have produced recently, especially with all of the school district proposals.

7. ADJOURN

All Commissioners agreed to adjourn.

Linda Carter, Planning Commission Chairperson

Maggie Collins, Planning Manager

CITY OF OREGON CITY

COMMUNITY DEVELOPMENT DEPT.
320 WARNER MILNE ROAD OREGON CITY, OREGON 97045
TEL 657-0891 FAX 657-7892

Staff Report
May 7, 2000

FILE NO:	**PD 00-01** Oak Tree PUD Planned Unit Development
FILE TYPE:	Quasi-Judicial
HEARING DATE:	Monday, May 14, 2001 7:00 p.m., City Commission Chambers 320 Warner Milne Road Oregon City, Oregon 97045
APPLICANT/ PROPERTY OWNER:	Lowell Wittke Lowell Wittke Construction 16281 S. Oak Tree Terrace Oregon City, OR 97045
REQUEST:	Preliminary Plan for a Planned Unit Development consisting of 31 dwelling units across 24 lots. The applicant proposes 17 lots for single-family dwellings and 7 lots for duplex dwelling units.
LOCATION:	16281 S. Oak Tree Terrace; Clackamas County Tax Map 2S-2E-28A, Tax Lots 1717 and 1722
REVIEWER:	Colin Cooper, AICP, Senior Planner Nancy Krasshaur, P.E., City Engineer Jay Toll, P.E., Senior Engineer
RECOMMENDATION:	Staff recommends denial of the requested Preliminary PUD Plan for the Oak Tree (Wittke) PUD (PD 00-01)

SUMMARY OF ISSUES

1. Scope of the Request

The applicant is requesting approval of a Preliminary Planned Unit Development consisting of a total 31 dwelling units. These units are split between 17 single-family lots and 7 duplex lots on an 8.35-acre site. The development site is located at the terminus of S. Oak Tree Terrace, just south of Holcomb Boulevard (Exhibit 1).

The applicant is proposing the extension of S. Oak Tree Terrace and dedication and construction of two new streets. In conjunction with the proposed duplex dwelling units located on Wittke Lane the applicant is proposing 14 parking spaces directly adjacent to the right-of-way.

The proposal includes 3 open space tracts that comprise a total of 2.83 acres or 34 percent of the site area. The largest proposed tract encompasses a large portion of undevelopable land including steep slopes, drainage way, and wetlands. The proposed open space is of passive character. The applicant states that the proposed open space is too steep to accommodate walking paths.

2. Review Process

The Planned Unit Development is an alternative process for development allowed within the R-10 Single-Family Dwelling District. At the applicant's request this proposal is being processed as a Planned Unit Development and therefore must comply with Chapter 17.64, Planned Unit Development. The applicant has requested this option in order to transfer density from steep slopes that are unbuildable or required significantly reduced density.

The PUD development standards require that at least 80 percent of the gross density of the base zone be met. The PUD code also requires that a mixture of single family and attached housing be included on the site. In addition, the PUD standards require that a minimum of 20 percent of the site be preserved in active and passive open space.

The Planned Unit Development review process includes two steps:

1. *Preliminary PUD Plan Review (Section 17.64.130)*
   The Preliminary PUD Plan is reviewed by the Planning Commission as a Type III application. An approval is valid for a period of twelve months of the date of decision. The applicant may apply to the Planning Manager for up to two extensions of up to six months each.

2. *Final PUD Plan (Section 17.64.150)*
The applicant must apply for Final PUD Plan approval within twelve months following approval of the Preliminary PUD Plan. Review of the Final PUD Plan is processed as a Type I decision by the Planning Manager. The Planning Manager may approve a Final PUD Plan as long as the Final PUD Plan does not propose any significant deviation from the approved Preliminary PUD Plan.

3. **Summary of Analysis and Findings**
Based on the analysis and findings contained in this staff report, staff finds that there is not sufficient evidence to prove that the proposed Oak Tree Estates (Wittke PUD) Planned Unit Development satisfies the Oregon City Municipal Code criteria.

The proposed lot layout and grading plan does not adequately meet Oregon City Municipal Code (OCMC) Planned Unit Development Approval Criteria Section 17.64.120.

CRITERIA:

Comprehensive Plan
Section "C" Housing
Section "F" Natural Resources
Section "I" Community Facilities

Municipal Code
Chapter 17.08 R-10 Single-Family Dwelling District
Chapter 17.44 Unstable Soils and Hillside Constraint Overlay District
Chapter 17.49 Water Resource Overlay District
Chapter 17.64 Planned Development

BASIC FACTS:

1 Location and present use of the property.
The subject property is approximately 8.3 acres in area. The site is located at the terminus of S. Oak Tree Terrace, just south of Holcomb Boulevard (Exhibit 1). The site is presently vacant. Evidence of a small dirt road previously used for site access cuts across the property.

2. Zoning and the surrounding land use pattern.
The subject property is zoned "R-10" Single-Family Dwelling District. Under Section 17.08 without adjustment from a PUD or Variance approval, residential development in this district must comply with the following standards:

Lot Area	10,000 square feet
Lot Width	75 feet
Lot Depth	100 feet
Front Yard	25 feet
Corner Side Yard	20 feet
Rear Yard	20 feet
Side Yard	10 feet on one side/8 feet on other side

Given the minimum lot size requirement, the 8.3-acre subject property may accommodate approximately 36 dwelling units at 4.4 units per gross acre under the current "R-10" Single-Family Dwelling District standards.

North: The two properties to the north of the subject site are zoned "R-10" Single-Family Dwelling District. One parcel is vacant while the other property is developed with a single-family dwelling.

East: The property to the east is zoned "R-10" Single-Family Dwelling District and is developed with a single-family dwelling.

South: Three properties abut the subject property to the south all of the parcels are zoned Clackamas County "FU-10" Future Urbanizable 10-Acre minimum and developed with single-family dwellings.

West: The property to the west is zoned "R-10" Single-Family Dwelling District and is vacant.

3. Site Natural Features and Constraints.
The site slopes down hill from the north to south across the site. The site is roughly bisected by a natural drainageway that flows into the Livesay Drainage Basin. The Livesay Drainage Basin ultimately drains to Abernathy Creek. The upper portion of the drainageway has been impacted by adjacent agricultural uses and grading associated with a dirt road. The lower portion of the drainage remains in a more natural state. The applicant's material includes two wetland delineation reports that state that there is at least one, and possibly two wetlands associated with the drainageway.

Steep slopes characterize most of the site. The site is identified on the Geologic Hazards Map of Canby and Oregon City. According to the applicant's calculations 3 acres of the 8.3 acre site include slopes that are greater than 25 percent.

The natural features of the site include a natural drainage swale including a small wetland. The applicant's wetland delineation report indicates that site vegetative cover consists of a mixture of upland forest.

4. Access and Circulation

Internal Circulation
Access to the site would be provided from an extension of S. Oak Tree Terrace across the site in an east-west direction. The applicant proposes to stub the extension of S. Oak Tree Terrace to the western property line. The applicant proposes a public street stub and cul-de-sac to provide access to the two "clusters" of development to the south of S. Oak Tree Terrace. The applicant proposes full 50-foot right-of-way dedication and complete improvements for all proposed streets.

Impact on City's transportation system
A Transportation Impact Analysis (TIA) was submitted by the applicant as part of the PUD application (Exhibit 3c). The TIA was evaluated by the City's consulting Traffic Engineer (Exhibit 5b). The City Traffic Engineer indicated that the proposed improvement would not cause any of the intersections studied to be reduced to Levels of Service (LOS) below those accepted by the City.

5. Density considerations.
The applicant is proposing a 31-unit Planned Unit Development. Planned Unit Developments are permitted in the R-10 Single-Family Dwelling District but they must meet comply with the requirements of Chapter 17.64.

Under Section 17.64.030, a development proposal may be processed as a PUD as long as the development proposes at least eighty percent of the gross density allowed by the underlying zone. The subject property could accommodate 36 units at 4.4 units per gross acre under the R-10 Single-Family Dwelling District density requirements. 80 percent of the 36 units is 29 dwelling units.

OCMC Section 17.64.040(H) requires "twenty percent of the net developable area shall consist of residential uses other than single family dwellings." The applicant is requesting 17 single-family dwelling units or 55 percent of the required density. The applicant proposes 7 duplex units for a total of 14 dwelling units or 45 percent of the gross density, which exceeds the 20 percent net density requirement.

6. Housing types.
The Preliminary Plan proposes 17 single-family lots (Lots 1-17) and seven lots with duplex units (Lots 18-24). The proposed single-family lots range in size from approximately 6,000 square feet to approximately 8,300 square feet. The proposed duplex lots range in size from 6,471 square feet to 10,793 square feet. Neither the single-family dwelling units or duplex dwelling units are subject to further Site Plan and Design Review.

7. Open space.
The applicant is proposing approximately 2.83 acres of open space. The proposed open space area consists of passive open space areas. The tracts include steep slopes and a natural drainage swale and associated wetlands. Based on a the Geotechnical Report that the applicant has submitted a large portion of the open space contained in Tract "C" is should be deemed a geohazard area.

8. Comments from affected agencies, the Park Place Neighborhood Association, and affected property owners.

Affected Agencies
Transmittals on the proposed PUD application were sent to affect agencies. All received comments are attached to this report (Exhibits 5a-e).

Letters from Affected Property Owners
The Planning Division received just one letter from the affected property owners pertaining to the proposed Oak Tree Estates (Wittke) PUD (Exhibit 6), comments from the Park Place Neighborhood Association (Exhibit 7).

All submitted comments were reviewed and incorporated to the Analysis and Findings section below.

ANALYSIS AND FINDINGS:

The requested Planned Unit Development is analyzed within the context of:

A. PUD approval criteria (Sections 17.64.010 and 17.64.120); and
B. PUD development standards (Sections 17.64.030, 17.64.040, 17.64.050)

A. PUD Approval Criteria:

Section 17.64.120. This section identifies five preliminary PUD plan approval criteria (Sections 17.64.120 A-E), each of which must be met in order to approve an application for a Preliminary PUD Plan. Staff analysis of each criterion includes the relevant Oregon City Municipal Code Section under that particular approval criterion.

CRITERION 1: ***17.64.120.A. The proposed preliminary PUD plan is consistent with the purpose of this chapter set forth in Section 17.64.010 and any applicable goals and policies of the Oregon City Comprehensive Plan.***

Section 17.64.010.A (PUD Purpose Statement)

The purpose of this section is "to promote an arrangement of land uses, lot sizes, lotting patterns, housing and development types, buildings, circulation systems, open space and utilities that facilitate the efficient and economic use of land, and in some instances, a more compact, pedestrian-oriented, mixed-use urban design. Specifically, this can be accomplished through the PUD process with cluster developments, zero lot line and townhouse type developments, and mixed use developments that integrate compatible neighborhood commercial and office uses with residential uses in a single development or within a single building".

Analysis:

The submitted Preliminary PUD Plan proposes two types of dwelling styles, 17 detached single-family dwellings, and 7 duplexes. The proposed 17 single-family dwelling lots are proposed to be developed under the "R-6" dimensional standards. These lots are illustrated on the proposed site plan as Lots 1-17. The proposed duplexes are illustrated as lots 18-24 and are located on "Wittke Lane".

The applicant states that the site plan proposes a clustering of single-family and duplex lots in order to reduce the impact to the site. Staff finds that the site plan does not propose a unique lotting pattern or clustering that reduces the footprint of the development impact on the sensitive slopes on the site. The applicant proposes to use the "R-6" dimensional standards for both the single-family and duplex lots. Section 17.64.040.C allows the applicant to request greater flexibility within the PUD, and Section 17.64.040.H provides specific standards for minimum lot size. Single-family dwelling lots may be as small as 5,000 square feet, while multi-family lot sizes can range in size from 7,000 square feet for two dwelling units to 13,000 square. Furthermore, the applicant may seek reduced front yard and side yard setbacks throughout the PUD in order to reduce the impact to the natural drainage swale, wetlands, and steep slopes found on this site.

Staff review of the proposal find that the applicant does not propose any zero-lot line, townhomes, or other unique cluster designs in this proposal. Lot 24, according to the applicant's, narrative is intended to serve as one of the duplex lots. Section 17.64.040.H. states the follow: "a minimum of seven thousand square feet is required for every two common wall units." According to the applicant's site plan, Lot 24 only contains 6,417 square feet and therefore, does not meet this standard.

The Engineering Division of the Community Development Department analyzed the street improvements to serve the requested development. The conclusion of the City's Engineering Division is that the applicant should be requesting constrained right-of-way and corresponding street cross-sections due to the steep topography of the slopes. In addition, the City Engineering Division finds that the public parking proposed by the applicant on Wittke Lane is not acceptable because of safety concerns.

Conclusion: Based on the site plan and narrative submitted by the applicant and the above analysis staff finds that the proposed development does not provide for significantly reduced impact to the sensitive areas on the site that are not otherwise protected by the standard subdivision process and application of resource overlay zones. The applicant's site plan reflects a conventional lotting pattern with the largest open space tract primarily consisting of undevelopable land. The applicant does not propose any zero-lot line, townhomes, or other unique cluster designs, as is the intent of the PUD regulations. Therefore, staff finds that the proposed preliminary PUD plan does not satisfy Section 17.64.010(A) of the Oregon City Municipal Code.

Section 17.64.010.B. (PUD Purpose Statement)

The purpose of this section is "To preserve existing natural features and amenities and/or provide useful common open space available to the residents and users of the proposed PUD. Specifically, it can be accomplished through the PUD process by preserving existing natural features and amenities, creating new neighborhood amenities such as pocket or regional parks and open spaces that serve neighborhoods or on-site open spaces that meet the needs of the development's future residents. In exchange, the City will extend residential density transfers and bonuses to increase the density on developable portions of the property".

Analysis: As described earlier in this report the site consists of a mixture of steep slopes identified in the Geologic Hazards Map of Canby and Oregon City. The site includes a noticeable natural drainage way and associated wetlands. The majority of the site contains a mixture of upland forest trees and plants with the exception of where a rough graded road has allowed invasive species to grow.

The proposed preliminary PUD plan includes approximately 2.8 acres of open space, which constitutes approximately 34% of the total area of the subject property. As noted earlier, the OCMC Section 17.64.040. D requires that at least 20 percent of the site be preserved as open space. The proposed open space provides passive recreational opportunities for the residents of the proposed PUD, but provides little benefit to surrounding residents. The proposed passive open space is designed to be contiguous to the proposed residential lots. The applicant has not provided significant opportunity for public to view or use the natural open space located on the site.

The applicant proposes to preserve the existing natural features of the site in three opens space tracts:

- Tract "A" consists of approximately 5,375 square feet. In its natural state this area includes the top of a drainage swale and wetland as identified in the applicant's wetland delineation report (Exhibit 3a). As illustrated by the applicant's site and utility plans a water quality pond is proposed to be located within the natural drainage area. The impacts to this portion of the natural drainage swale is proposed to be located on a lower portion of the drainage swale in the form of a small created wetland and bank stabilization. According to the City Engineer the applicant has not provided an alternatives analysis that describes how this impact could not be avoid. Further analysis by the City Engineer questions the design practicality of the Water Quality Pond in this location to serve the duplex dwelling units located on "Wittke Lane."

- Tract "B" consists of approximately 12,834 square feet of passive open space. According to the applicant's slope analysis this tract contains slopes in excess of 35 percent. The applicant proposes to grade a significant portion of this Tract in conjunction with the construction of the Oak Terrace extension. The proposed parking area on "Wittke Lane" and associated grading and fill cause further impact to the slope. In order to provide for the parking the grading plan calls for approximately 8 to 10 feet of fill and retaining walls. Based on the City Engineer's analysis of Section 17.44, Unstable Slopes and Hillside Constraint Overlay, the proposed grading plan is not consistent with this Code section.

- Tract "C" is the largest of the three proposed tracts with approximately 110,257 square feet, or approximately 2.5 acres. Tract "C" is located on the southern portion of the site and includes slopes ranging from 20 percent to over 35 percent. The tract is proposed as passive open space and is roughly bisected by the natural drainageway described earlier in this report. The applicant proposes to locate wetland mitigation in Tract "C"; however, the scope of the mitigation and construction methods has not been detailed by the applicant.

  As described above in the applicant's Geotechnical Report, the area below 260 feet elevation should be designated as a "geo-hazard – no build area."

  The applicant's grading plan includes approximately 10 to 20 feet of fill in the northern portion of the tract. In addition, the applicant is proposing two significant storm water outfalls within the tract.

Conclusion: Based on the above analysis, the proposed development footprint does not adequately protect construction and development of steep slopes located on the site. The open space protects portions of the natural features of the property; however, staff finds that because of the grading impacts to the slopes in excess of 35 percent and the excessive fills in the drainageway that this proposal does not adequately protect the unique site features on this site. Therefore, staff finds that the proposal does not satisfy Section 17.64.010(B) of the Oregon City Municipal Code.

Section 17.64.010.C (PUD Purpose Statement)

This section requires "To protect and enhance public safety on sites with natural or other hazards and development constrains through the clustering of development on those portions that are suitable for development. This can be accomplished through the PUD process by preserving existing natural features and hazard areas and obtaining density transfers and bonuses to increase the density on developable portions of the property. The exact amount of density transfers and bonuses allowed is ultimately a discretionary decision by the City, and the applicant bears the ultimate burden of justifying the total density requested based on the mix of amenities and design features reflected in the PUD plan."

Analysis: As previously discussed in this report, the property contains steep slopes as defined by the Oregon City Municipal Code. The Canby and Oregon City Geologic Hazards Map also identify the site. According to the applicant's narrative approximately 3.06 acres of the site consist of slopes of 25 percent slope or greater. The applicant's Geotechnical Engineer reports that at "..all areas below an elevation of 260 feet be designated as a geologic hazard areas and should remain undisturbed from construction and tree cutting due to adverse impacts to the site."

The City Engineer has provided findings that the proposal is not consistent with OCMC Section 17.44, Unstable Soils and Hillside Constraints Overlay District because of the massive fills, grading, and utility structures located in or near a geologic hazard zone.

Conclusion: In general, the Preliminary PUD Plan submitted by the applicant is a result of preserving natural features of the subject property and transferring densities to the developable portions of the site. The City Engineer finds that the applicant's proposal is characterized by a massive importation of fill onto existing steep slopes. Further the design of the grading to place as much as 40 feet of fill on top of a geohazard area is not prudent. In addition, the applicant is concentrating storm water run-off from the site at the top of the geo-hazard area and at the toe of very steep slopes and fills.

Therefore, staff finds that the proposed PUD does not provide adequate protection from the geologic hazards on the site.

Section 17.64.010.D. (PUD Purpose Statement)

This section of the Code anticipates that certain dimensional requirements of underlying zones and general development standards, including those governing street right-of-way and pavement widths, may be adjusted to better achieve the above purposes.

Analysis: The applicant is requesting dimensional adjustments from the "R-10" Single-Family Dwelling District to the "R-6" Single-Family Dwelling District.

Adjustments to the "R-10" Single-Family Dwelling District dimensions
The applicant is requesting the following adjustments to the R-6 District standards:

Type of Standard	R-10 Requirements	Proposed Adjustments
Min. Lot Area	10,000 square feet	6,000 square feet
Average Width	75 feet	60 feet
Average Depth	100 feet	85 feet
Max. Building Height	35 feet (2 ½ stories)	No adjustment proposed
Front yard	15 feet	20 feet
Interior yard	10/8 feet	7/5 feet
Corner yard	20 feet	15 feet
Rear yard	20 feet	20 feet

The applicant indicates in the narrative that the requested adjustments allow for a more efficient use of land and transfer of densities from undevelopable areas of the property to developable areas of the property. The proposed adjustments are tools the applicant may use to place 31 residential dwelling units on the subject property as long as the proposed development better achieves the purposes of the PUD development. As previously discussed in this report, the proposed preliminary PUD development does not meet the purpose of the PUD standards.

Adjustments to parking standards
As previously discussed in this report, the applicant is proposing 7 duplex dwelling lots for a total of 14 dwelling units. Under the Code (17.52.010), 2 parking spaces are required for each dwelling unit on site. The applicant is requesting to locate 3 parking spaces on each duplex lot and one additional space nearby. The applicant requests a total of 14 spaces adjacent to "Wittke Lane." This arrangement of off-street parking renders "Wittke Lane" as a private access drive more similar to standard mutli-family apartment complex than an attractive PUD.

Conclusion: The submitted Preliminary PUD Plan is not designed to integrate the proposed mix of housing types and site natural features to the extent that all slopes greater than 30 percent are protected. The proposed adjustments to the "R-10" zoning standards enable the applicant to implement a standard design concept, and, ultimately, do not satisfy the PUD objectives, which are to

allow a mix of land uses and structure types that are not permitted with the traditional subdivision process.

Consistency Of The Proposed Development With Comprehensive Plan:

Housing Goal: Provide for the planning development and preservation of a variety of housing types at a range of prices and rents.

The proposed PUD development would provide 31 residential lots, spread between 17 detached single family homes and seven duplexes lots which would satisfy the Housing Goal.

Community Facilities Goal: Serve the health safety education and welfare and recreational needs of all Oregon City Residents through the planning and provision of adequate community facilities.

No limitation on capacity has been identified by the public service agencies that cannot be overcome through construction of improvements as required by the City.

Policy No. 5: The City will encourage development on vacant buildable land within the City where urban facilities and services are available or can be provided.

The proposed PUD utilizes the vacant buildable land that can be served by the City's facilities.

Natural Resources Goal: Preserve and manage our scarce natural resources while building a livable urban development.

The proposed PUD attempts to preserve and integrate the existing natural resources into the residential development. However, the proposed development footprint is based largely upon conventional lotting and development practices. Although approximately 3 acres of the site are preserved in open space these areas are generally unbuildable.

The alternative development process allowed by the PUD regulations makes it incumbent upon the applicant to ensure that the remaining developed portion of the site will not have a detrimental effect on the remaining natural resources on the site. Because of the proposed grading on slopes of 35 percent or greater and the massive fills on slopes between 25 and 35 percent a positive finding that the proposed development does not have a negative impact on the natural resources can not be made.

To evaluate any proposed impact to a water resource area the first question is whether a design is available that does not impact. The applicant proposes approximately 20 feet of fill across the natural drainage swale located on the site. The proposed design does not appear to consider alternative designs such as constrained right-of-ways, arch culverts, key block retaining walls, and underground storm water treatments in order to reduce the impacts to the natural drainageway.

Conclusion: Based on the above analysis, the proposed Preliminary PUD Plan does not satisfy Section 17.120(A) or Section 17.120(D).

CRITERION 2 ***Section 17.64.120.B. The proposed preliminary PUD plan meets the applicable requirements of the underlying zoning district, any applicable overlay zone (e.g., Chapters 17.44 and 17.49) and applicable provisions of Title 16 of this code, unless an adjustment from any these requirements is specifically allowed pursuant to this chapter.***

Analysis: The applicant requested adjustments to the requirements of the underlying "R-10" Single-Family Dwelling District. These adjustments were discussed in response to Section 17.64.010(D), above.

1. Section 17.44.060 Unstable Soils and Hillside Constraint Overlay District Development standards.

Section 17.44.060.A
All developments shall be designed to avoid unnecessary disturbance of natural topography, vegetation and soils. To the maximum extent practicable as determined by the review authority, tree and ground cover removal for residential development on individual lots shall be confined to building footprints and driveways, to areas required for utility easements and for slope easements for road construction, and to areas of geotechnical remedia-tion. Temporary protective fencing shall be established around all trees and vegetation designed for protection prior to the commencement of grading or other soil disturbance.

Analysis: The subject development proposal includes 7,774 cubic yards (cy) of cut and 26,928 cy of fill which yields a net fill of 19,154 cy. The proposal includes 15-foot deep fills, 50 percent (2H:1V) fill slopes, and over 20,000 square feet (sf) of fill area will cover existing slopes that exceed than 25 percent. The proposed grading and tree and ground cover removal is not confined to the maximum extent practicable to building footprints and driveways and areas required for utility easements, slope easements for road construction, and areas of geotechnical remediation.

Conclusion: Staff finds that the development proposal does not meet this standard because large areas of vegetation will be removed and large volumes of soils will be imported, thus significantly modifying the natural topography, vegetation, and soils on the site.

Section 17.44.060.B
Designs shall minimize the number and size of cuts and fills.

Analysis: The intent of this standard is to minimize the number and size of cuts and fills.

The proposal includes significant site grading with deep and massive cuts and fills with steep finished slopes. Staff estimates that less than 30 percent of the total

developed area will be unaffected by site grading. Much of the grading is proposed for existing steep slopes. Deep fills are proposed for approximately twenty percent of the development area (within proposed lot lines) where existing slopes exceed 25 percent. Over 15,000 sf of cut or fill areas with steep slopes (over 50 percent or 2H:1V) are proposed for areas where existing slopes measure less than 25 percent.

Conclusion: Staff finds that this proposal does not meet this standard because many and large volumes of cuts and fills are proposed and alternative design approaches can be used to minimize cuts and fills.

Section 17.44.060.E

Any structural fill shall be designed by a suitably qualified and experienced civil or geotechnical engineer licensed in Oregon in accordance with standard engineering practice. The applicant's engineer shall certify that the fill has been constructed as designed in accordance with the provisions of this chapter.

Analysis: The intent of this standard is to assure that where grading occurs within the overlay district, the grading is properly designed, oversight is provided during construction, and the grading is certified to be structurally sound.

The proposal does not clearly state what procedures will be used for reviewing, inspecting, and certifying structural fill placed on existing slopes that measure greater than 25 percent. The proposal does not indicate the locations of keyway and benching for fill placed on slopes greater than 20 percent, a recommendation from the geotechnical report. For these reasons, the proposal does not meet this standard.

Section 17.44.060.G

Roads shall be the minimum width necessary to provide safe vehicle and emergency access, minimize cut and fill and provide positive drainage control. The review authority may grant a variance from the city's required road standards upon findings that the variance would provide safe vehicle and emergency access and is necessary to comply with the purpose and policy of this chapter.

Analysis: The intent of this standard is to reduce artificial grading and net increases in runoff while maintaining emergency vehicle access to the development. The proposal includes a standard 32-foot paved width for the majority of the development.

Conclusion: Therefore, staff finds that this proposal does not meet this standard.

Chapter 17.49 Water Resources Overlay District

As discussed previously in this report, the property contains approximately 0.8-acre wetlands. The applicant provided a Water Resource Report from Fishman Environmental Services, dated March 2001. The applicant's response to the standards of the Water Resource Overlay District is in the narrative (Exhibit 3a).

The Livesay Drainage Basin and its associated wetland are located roughly in the center of the site. This unnamed drainage way is identified as a significant resource within Oregon City and is listed in the Inventory of Water Resources in Ordinance 93-1007. This unnamed drainage swale is part of the Livesay Drainage Basin, which in turn drains to Abernethy Creek a known anadromous salmon-bearing stream. Agricultural uses off-site and a dirt road have impacted the upper portion of the drainage. The lower portions of the drainage have are undisturbed and retain a natural character.

As previously discussed in this report, the applicant is proposing a wetland mitigation plan that would fill the existing wetland with the construction of a water quality pond and road improvements. Because the property contains an important water course area, any development on the subject property must meet requirements of Chapter 17.49 Water Resource Overlay Area.

The intent of the application requirements is to define the specific contents of applications for development proposals that impact water quality resource areas. Many of the specific requirements prescribed by these standards have not been completed. The requirements for which information is lacking are presented below.

The proposal does not include a map that delineates the water quality resource areas, including the protected water feature and the vegetated corridor, prescribed by Table 17.49-1 (see 17.49.050(G)(1)).

Although the March 2001 Fishman "Wetland Delineation and Water Resources Report" provides generally descriptions of the nuisance plants found on the site, their location and abundance are not detailed (see 17.49.050(G)(4)).

The proposal does not include an assessment of the existing condition of the water quality resource area comprised of the wetland and north stream area (see 17.49.050(G)(5)).

The proposal's analysis of the proposed development impacts on the water quality resource area are not complete (see 17.49.050(G)(7)). The Fishman report describes the development, the filling of the wetlands, and installation of the water quality pond, but does not address the impacts of these actions or the impacts of the development overall on the water quality resource area comprised of the drainage swale that dominates the landscape below the proposed main access road.

The proposal does not address the impacts the proposed development will have on the water quality of the affected water resources (see 17.49.050(G)(8)). The proposal indicates that an erosion control plan will be developed for the site and that treatment will be provided for stormwater runoff. However, the proposal does not describe how these features will function or their effectiveness and what that means to downstream water resources.

The proposal does not describe alternative development plans that were considered for the site to avoid impacts on the water resource areas(see 17.49.050(G)(11)). An alternatives analysis should compare several alternatives, describe the findings of each, and show why the selected alternative has the least impact on the water resources. The proposal states that no practicable alternative exists, but does not provide evidence that other options were considered.

The proposal does not include a mitigation plan (see 17.49.050(G)(12)). The proposal refers to a conceptual mitigation plan that includes berming the lower drainages and planting native plants in the "wetland creation area". The proposal refers to additional hydrology supplied by the development's stormwater facilities and capturing the on-site springs and routing them to this area. Redirecting natural springs presents a concern about interrupting natural drainage routes and the consequences of such a proposal. The proposal indicates that the mitigation details will be presented as the project moves forward. The specific items required of a mitigation plan for development in the overlay district have not been completed.

Conclusion: The applicant is requesting modifications to the dimensional requirements of the "R-10" Single-Family Home Dwelling District and yet unidentified wetland mitigation.

As previously discussed in this report, this drainage is identified as a significant resource within Oregon City and is listed in the Inventory of Water Resources in Ordinance 93-1007. This drainage ultimately drains to Abernethy Creek known to be an anadromous salmon-bearing stream. Current scientific literature indicates that a 200 feet wide corridor is appropriate for wildlife protection in the northwest.

The City Public Works Manager indicated (Exhibit 5c) that the Planning Commission may grant the requested reduction from 50 feet to 25 feet based on the three criteria that address slope, soil erodibility, and wildlife habitat. However, the Public Works Manager recommends that this proposal be denied based on the a lack of early identified wetland mitigation measures, lack of clear identification of drainage tracts, and feasible alternative designs for storm water run-off that would better protect the water resource on this site and adjoining sites.

The forest riparian corridor proposed by the applicant has merit, but the habitat is unlikely to develop within the proposed 25 feet wide wetland transition area. Maintaining a 50 feet wide riparian area would ensure better conditions for the habitat.

In order to cross the northerly wetland mitigation area, the applicant must apply for and obtain an appropriate DSL/U.S. Army Corps of Engineers permit prior to Final PUD Plan approval

CRITERION 3:Section 17.64.120(C). Any phasing schedule proposed by the applicant must be reasonable and not exceed five years between approval of the final PUD plan and the filing of the final plat for the last phase. Dedication or preservation of open space or natural resources, in a form approved by the city, must be recorded prior to the construction of the first phase of any multi-phase PUD.

Analysis: The applicant is proposing to build the PUD in three phases over 5 years. The phasing can be made to provide all necessary public improvements which each phase.

Conclusion: If the Planning Commission approves the PUD request, the applicant will have to comply with this criterion prior to the PUD final plan approval.

CRITERION 4:Section 17.64.120.D. The applicant has demonstrated that all public services and facilities have adequate capacity to serve the proposed development or adequate capacity is assured to be available concurrent with development.

Analysis: The proposal was evaluated by the Engineering Division (Exhibits 5a and 5c) and the City's Traffic Engineer (Exhibit 5b). The Engineering Division evaluated the water, sewer, and drainage facilities.

The City's Traffic Engineer evaluated the Traffic Impact Study submitted by the applicant and assessed the impact of the proposed PUD on surrounding transportation system. The City's consulting Traffic Engineer noted that the traffic generated from the proposed PUD will not have a significant impact on the existing transportation system but will contribute to the eventual need for intersection improvements of Holcomb and Redlands Road and Redlands Road and Highway 213 (Exhibit 5f). Clackamas County Transportation Engineers recommend denial of the application because the existing intersection of S. Oak Tree Terrace and S. Holcomb Boulevard does not meet the County site vision clearance standards and the additional traffic at this location will create a traffic hazard.

The applicant appears to propose an extension of the City's 8-inch water line from Holcomb Boulevard to the site. The City Engineer finds that the extension of this water line will serve the site. This proposal will provide adequate water to the site. The applicant also included in their narrative to extend an abandon Clackamas Water District line to the site. The extension of this abandoned water line will not service the site. Based on the applicant's Utility Plan submitted on March 19, 2001, the proposed water line improvements meet City standards.

The City Engineer's report reviewed the applicant's proposal for sanitary sewer service on the site. There is an existing 8-inch sanitary sewer site that crosses the site that the applicant proposes to realign to match the proposed street alignment. The proposed sanitary sewer improvements meet City standards.

Conclusion: No limitation on capacity has been identified that cannot be overcome through construction of improvements as required by the City.

CRITERION 5: 17.64.120.E. All adjustments from any applicable dimensional requirement requested by the applicant or recommended by the city are justified, or are necessary to advance or better achieve the policies of this chapter than would compliance with the dimensional requirements of the underlying zoning.

Analysis: The dimensional adjustment to the "R-10" Single-Family Dwelling District standards were previously analyzed and addressed in response to Section 17.64.010.

Conclusion: Staff finds based on the findings for Section 17.64.010, that the proposal is not consistent with the purpose statement of the PUD regulations.

B. Planned Unit Development standards:

The following sections of Chapter 17.64 pertain to PUD standards:

Section 17.64.030. This section states that "A development proposal may be processed as a PUD at the applicant's option so long as at least fifty percent of the gross area bears a residential plan designation, at least fifty percent of the net developable area is proposed for residential uses, and the development proposes at least eighty percent of the gross density allowed by the underlying zone. If the property bears a PUD designation, the property may be developed in accordance with this chapter. ..."

Analysis: The maximum gross density for the site is 36 residential dwelling units under "R-10" Single-Family Dwelling District standards. The applicant is proposing 31 units, which includes 17 single-family lots and 7 duplex lots.

Conclusion: Therefore, staff finds that the proposal satisfies Section 17.64.030.

Section 17.64.040.A. This section allows outright detached single family dwellings and multiple-family dwelling units, private or public playgrounds, common public and private open space, and hiking trails as part of a PUD.

Analysis: The applicant proposes a mix of single-family detached dwellings and duplex dwellings, and passive open space tracts.

Conclusion: The proposed PUD encompasses uses that are allowed outright in a PUD development.

Section 17.64.040.B. This section allows neighborhood commercial uses as part of the proposed PUD.

Analysis: The applicant is not requesting commercial use as part of the proposed PUD.

Section 17.64.040.C. This section allows the applicant to ask for adjustments to all dimensional standards that would otherwise apply to a property in the context of a PUD without a separate variance application. However, unless an adjustment is specifically requested and explained in the PUD application or recommended by the City, the dimensional standards of the underlying zone would be assumed to apply.

Analysis: The applicant is requesting adjustments to dimensional standards of single family lots and parking standards for duplex units. The requested adjustments were previously analyzed in this report in response to Section 17.64.010.D.

Section 17.64.040.D. This section requires the applicant to provide at least twenty percent of on-site open space. This section also states that the applicant must submit for City review and approval all proposed deed restriction or other legal instruments used to reserve open space and maintenance agreements to ensure the continued maintenance of open space and any related landscaping facilities.

Analysis: The open space provision was discussed previously in this report in response to Section 17.64.010(B). The applicant is proposing approximately 2.8 acres of open space. The proposed open space areas are identified on the PUD preliminary plan as Tracts "A" through "C". The applicant has also provided a copy of protective covenants, conditions, and restrictions for the proposed PUD. The City will review the submitted documentation to ensure the continued maintenance of open space prior the final plan approval of the proposed PUD.

Section 17.64.040.E. This section requires the applicant to demonstrate that adequate water, sewer, storm water, and traffic and transportation infrastructure capacity to serve the proposed PUD.

Analysis: The City Engineering Division provided a capacity analysis of public facilities to adequately serve the proposed development (Exhibit 5a).

Water. There is an existing 8-inch water main located in Holcomb Boulevard that is proposed to be extended to the site via S. Oak Terrace. The applicant's Utility Plan proposes to extend the 8-inch water line to the western property line. The applicant is also proposing to extend two 6-inch water line stubs on Wittke Lane and Wittke Court.

Sanitary sewer. There is an existing 8-inch sanitary sewer that traverses the subject site. The existing alignment of the sewer lines begins at the northern

property boundary extending down the drainage way before angling to the western property boundary. The applicant proposes to realign the existing sanitary sewer in order to place it under the proposed right-of-way and road improvements.

Storm water. This site is located in the Livesay Drainage Basin as designated in the City's Drainage Master Plan. The City Engineer notes that drainage impacts from this site are significant because of the steep slopes located on the site and Livesay Creek drains to Abernethy Creek, which is an anadromous salmon-bearing stream.

Erosion and water quality controls are critical for the development of this site. The City Engineer report (Exhibit 5a) indicates that applicant's erosion control plan is not adequate for the steep slopes on the proposed site and does not meet the City standard.

Conclusion: The City's Engineering Division evaluated the information submitted by the applicant and concludes that the water quality systems have not been designed in a manner to make the best use of the existing natural features of the site. (Exhibit 5a and 5c).

Traffic system. The applicant as part of the PUD application (Exhibit 3) submitted a Transportation Impact Analysis (TIA). The TIA was evaluated by a consulting Traffic Engineer (Exhibit 5b).

Conclusion: Water, Sanitary Sewer, and Transportation facilities are adequate or can be made available for the proposal. However, staff finds that the applicant's storm water design and erosion control plan do not meet the City standard. Thererfore, staff finds that the proposed application does not meet this Section.

Section 17.64.040.H. This section allows the City to require special requirements for provision of public infrastructure necessary to meet standards in the City's master plans.

Analysis: The City's Engineering Division evaluated the project with regard to provision of public infrastructure to meet standards in the City's master plans.

Section 17.64.040.G. This section requires the applicant to preserve the natural features of the property by integrating the site plan design with the constraints of the subject property.

Analysis: The relationship between the site's natural features and the proposed site design layout was analyzed previously in this report in response to Sections 17.64.010(A), 17.64.010(B), 17.64.010(C) and 17.64.010(D).

Conclusion: Based on the materials presented by the applicant, the design features of the proposed PUD, including the housing types, natural conditions, and the provision of open space do not support the proposed PUD.

The Planned Unit Development requires that careful *site planning* and *site design* take place. The proposed PUD design simply takes the density from the steepest unbuildable slopes and arranges the lots in a fairly traditional pattern to those areas that are not as objectionable.

Staff finds that through the use of attached townhomes or condominums the footprint for the required 20 percent density that is required to be provided as "residential uses other than single-family dwellings" could significantly reduce the impact on the site.

The proposed preliminary PUD plan includes approximately 2.8 acres of open space, which constitutes approximately 26% of the total area of the subject property. The proposed open space provides passive recreational opportunities for the residents of the proposed PUD only.

In summary, based on the above analysis, the proposed open space protects natural features of the property but does not provide any active method to enjoy the open space.

Therefore, staff finds that based on the design type of the proposed single-family and duplex house designs, the open space preservation and enhancement proposed by this development, adequate justification for the requested use of the PUD standards have not been established.

CONCLUSION AND RECOMMENDATON:

Based on the analysis and findings contained in this staff report, there is not sufficient evidence to prove that the proposed Oak Tree (Wittke) Planned Unit Development satisfies the Oregon City Municipal Code criteria.

Therefore, staff recommends that the Planning Commission deny the requested Oak Tree (Wittke) Planned Unit Development PUD 00-01, for the property located at 16281 S. Oak Tree Terrace, Clackamas County Tax Map 2S-2E-28A, Tax Lots 1717 and 1712.

EXHIBITS:

1. Vicinity Map

2. Site Plan

3. Applicant's Narrative
   3a. Applicant's Wetland Report*
   3b. Applicant's GeoTechnical Report
   3c. Applicant's Traffic Impact Analysis (TIA)*

4. Set of Site Master Plans*
   4a.Topographic Survey
   4b.Preliminary Plat, Circulation, and Phasing Plan
   4c.Grading and Erosion Plan
   4d.Slope Analysis
   4e.Sanitary Sewer and Waterline Plan
   4f. Storm Drainage Plan
   4g.Tree Survey & Landscape Plan

5. Agency Comments
   5a. Engineering Division
   5b.Traffic Engineer
   5c. Public Works Division
   5d. Tualatin Fire & Rescue*
   5e. Public Projects Manager*
   5f. Clackamas County Transportation Comments

6. Letter from Debbie Bell, dated August 4, 2000.

7. Park Place Neighborhood Association Letter dated April 19, 2001

8. Oregon City Engineering Policy 00-01*

*Available for review at City Hall, Planning Division

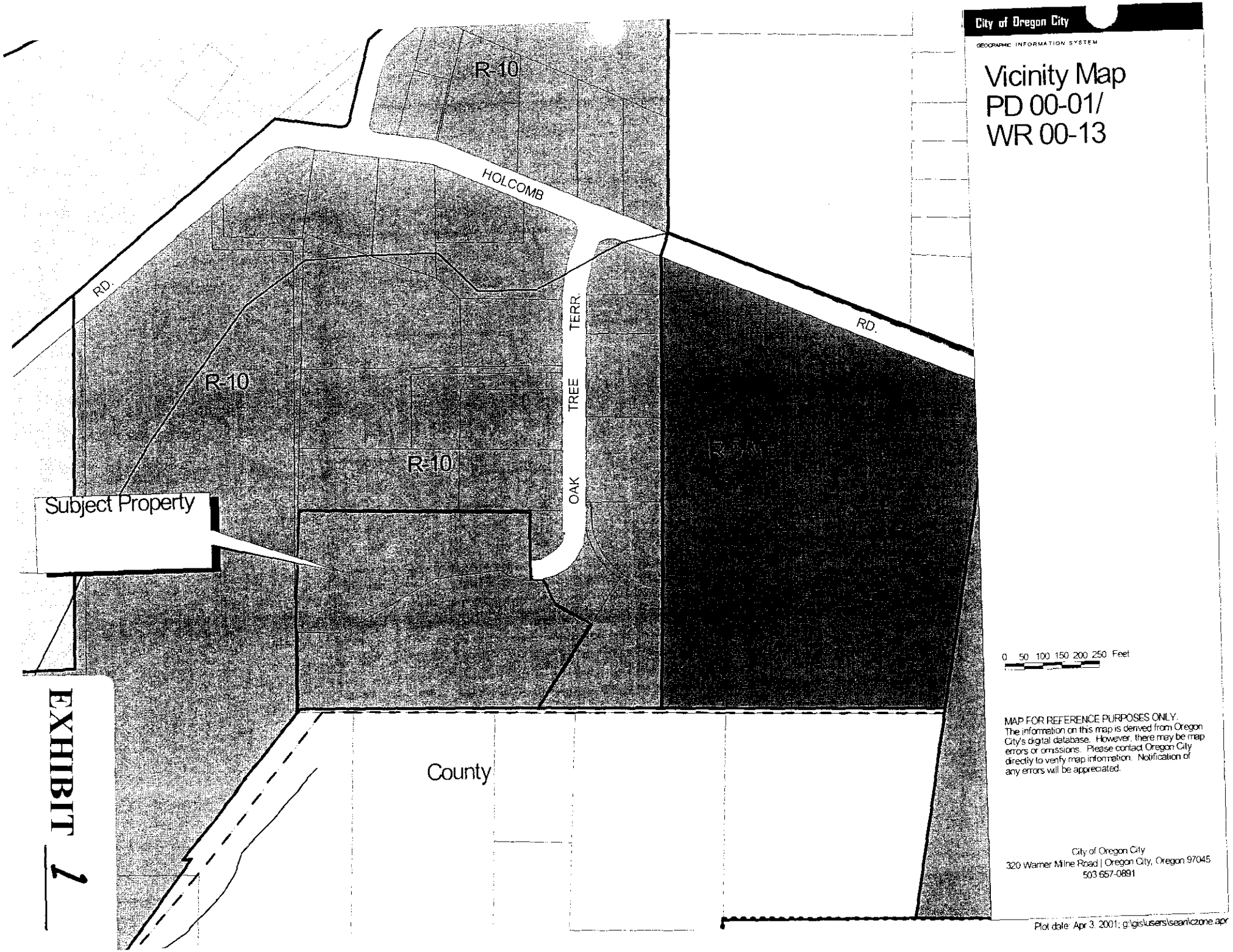


EXHIBIT 7

with colored office grade paper.

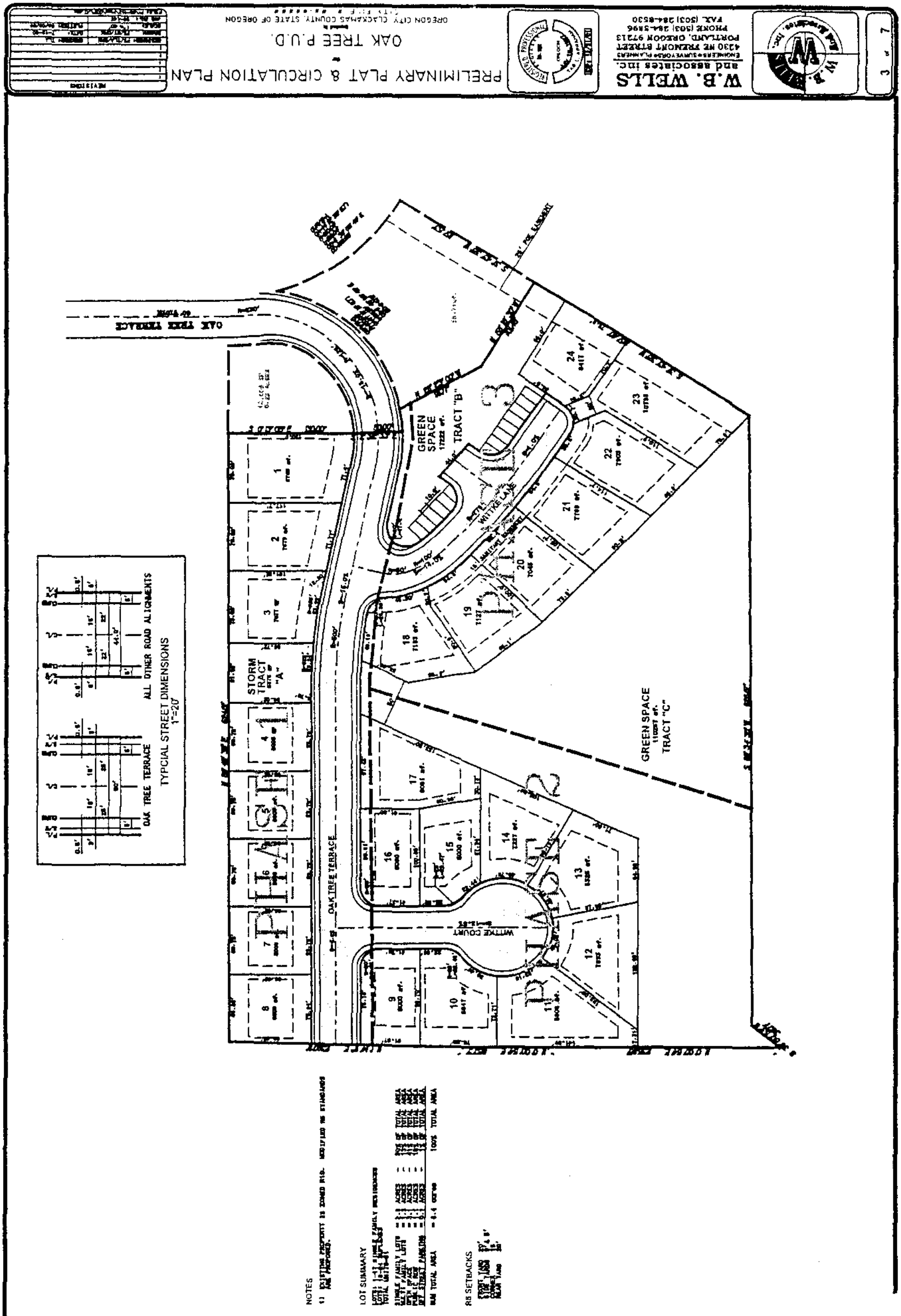

PRELIMINARY PLAT & CIRCULATION PLAN
OAK TREE P.U.D.
OREGON CITY, CLACKAMAS COUNTY, STATE OF OREGON
W.B. WELLS
and associates inc.
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX (503) 284-8530
3 of 7
OAK TREE TERRACE
WITTKE LANE
WITTKE COURT
GREEN SPACE
TRACT "B"
GREEN SPACE
TRACT "C"
STORM TRACT
"A"
TYPCIAL STREET DIMENSIONS
1"=20'
OAK TREE TERRACE
ALL OTHER ROAD ALIGNMENTS
NOTES
LOT SUMMARY
R8 SETBACKS

EXHIBIT 2

FILE

OAK TREE ESTATES

A 31 Unit Planned Development

Submitted to:
Oregon City Community Development Department

Applicant:
Lowell Wittke Construction
16281 S Oak Tree Terrace
Oregon City, OR 97045
Phone and Fax: 657-7641

Representative:
WB Wells and Associates
4230 NE Fremont St.
Portland, OR 97213
Phone 284-5896
Fax 284-8530

August 2000
(revised March 2001)

EXHIBIT 3

CONSULTANT INDEX

W.B. WELLS & ASSOC. INC. — ENGINEERS, SURVEYORS, PLANNERS
4230 N.E. Fremont St.
Portland, OR 97213
(503) 284-5896 FAX 284-8530

LOWELL WITTKE CONSTRUCTION — DEVELOPER
Lowell Wittke
16281 S. Oak Tree Terrace
Oregon City, OR 97045
(503) 657-7641 FAX 657-7641

GEOPACIFIC ENGINEERING INC (Formerly ADAPT) — GEOTECHNICAL
Warren Krager
17700 SW Upper Boones Ferry Rd, Suite 100
Portland, OR 97224-7010
(503) 598-8445 FAX 598-8705

GROUP MACKENZIE — TRAFFIC ENGINEER
Brent Ahrend
0690 SW Bancroft
Portland, OR 97201
(503) 224-9560 FAX 228-1285

Fishman Environmental Services, LLC — WETLAND SCIENTIST
Mirth Walker, PWS, Wetlands Program Manager
434 NW Sixth Avenue, Suite 304
Portland, OR 97209-3600
(503) 224-0333 FAX 224-1851

Application Table of Contents

City of Oregon City
Community Development Department
320 Warner Milne Road
Oregon City, OR 97045

Application: Planned Development which proposes 31 new housing units

Zoning: R-10

Acreage: 8.35 acres (388,734sf)

Location: 16281 S. Oak Tree Terrace, Oregon City

Representative: WB Wells and Associates, 4230 NE Fremont, Portland 97213

Owner/Applicant: Lowell Wittke, 16281 S. Oak Tree Terrace, Oregon City, OR 97045; Phone and Fax: 657-7641

Legal: T2S, R2E, S28 Tax Lots 1717 and 1722 (Tax Map 2 2E 28A)

Pre-Application: PA 99-109

Overall Proposal: The owner of this property is proposing to develop 8.35 acres as a planned unit development. The PD requires that 80% of the gross acreage be developed with a density that is consistent with the R10 base zone. The owner is proposing a total of 31 housing units (or 85%) with 24 lots. 17 units will be single family residences and 14 units (duplexes on 7 lots) will be clustered multi-family. Oregon City requires that Planned Developments include a minimum of 20% multi-family housing and that 20% of the property be reserved as open space. The site plan has exceeded these requirements. 34 % of the land has been preserved in open space. The housing density has been divided between single family with 55% or 17 units and multi-family 45% or 14 units providing more efficient land utilization on a site that has steep slopes.

Site Description: The site has its development challenges and this is a major reason that the PD structure is appropriate for the site development. Slopes are steep in numerous places and the topography drains to the center of the property creating water resource areas that will be left as open space. However all lots proposed on the site plan have suitable building areas. This has been confirmed by the geo-technical report (attached). The majority of the steep and water resource areas have been reserved as open space and separate tracts. The site's major environmental impact occurs when continuation of Oak Tree Terrace

requires the developer to fill an existing drainage way that has been delineated as a wetland. The drainage way will need to be filled and culverted in order to extend the road across the property. The remaining drainage area will be preserved in a separate tract and restoration plantings will be provided for the impacted area. Otherwise drainage ways and unsuitable slopes have been avoided and left natural to the maximum extent possible.

Density Calculations: 80% of the 8.35 acre property provides an area of 290,980 sf. Under R10 zoning (minimum of 10,000 sf lots) this would amount to a total 29 units for the PUD. A minimum of 20% and a maximum of 50% of this total should be dedicated to multi-family housing in a PUD. The applicant has proposed 31 units (85%). These include 17 single family lots (55%) and 14 units on 7 duplex lots (45%).

Site Plan: The proposed site layout plan provides for a continuation of Oak Tree Terrace and new roads branch off at two points to the south to create single family and duplex housing clusters. The PD's major open space area separates the two clusters with natural terrain. The multi-family area also has its own green space. Oak Tree Terrace road divides Lots 5, 6 and 7 from the duplexes. Both streets serving the clusters will be public streets with sidewalks on both sides. The PUD lot layout has been developed using R6 zoning as a model. The lots are sized with the lot area, width, depth and setback standards of the R6 zone in mind. As a result all lots will be 6000sf or greater, have a width of 60 feet or greater and a depth not less than 85 feet. The lot configurations tend to be a little wider than deep as this fits the character of the site and the applicant is asking for flexibility on the R6 lot depth and rear setback standards for half the lots.

Neighborhood: Park Place is represented by Julie Puderbaugh (661-5093). The applicant elected not to hold a formal meeting with the neighborhood.

Chapter 17.64 – Planned Development

17.64.010 PUD Purpose

Response: The development of this property is proposed as a Planned Development (PD) because it is better suited to the purpose of the PD than as a traditional R10 subdivision due to the existing topography and natural site conditions. The site plan allows for flexibility in lot layout and size and it promotes an efficient site design which preserves existing natural features. The large reservation of open space compensates for the building areas and the added density promotes more intense utilization of suitable land for housing.

17.64.040 Permitted Uses and Other PUD Requirements

A. Permitted Uses

Response: Detached single family and duplexes on individual lots are permitted outright.

C. Adjustments to dimensional standards

Response: The Oak Tree Terrace PD lots are sized with the lot area, width, depth and setback standards for the R6 zone in mind. As a result all lots will be 6000sf or greater, have a width of 60 feet or greater and a depth no less than 85 feet. The lot configurations tend to be a little wider than deep as this fits the character of the site.

The applicant requests an adjustment to the R6 dimensional standard that requires lots to be 100 feet deep. The lots in this PD average range from 130 to 85 feet deep. A minimum of an 85 foot lot depth is requested as the lot depth standard for this PD.

YES Interior Lots

The depth reduction may cause difficulty in meeting the standard rear yard setbacks for the R6 zone which are 20 feet. The applicant requests an adjustment to have the rear yard setback reduced to 15 feet instead of 20 feet in order to have flexibility in siting the buildings on lots with shallower lot depths.

No Exterior 5

D. Open Space and Landscaping:

Response: The applicant has provided in excess of 34% open space area in the PD layout. The minimum PD requirement is 20% open space. This open space include a mixed use of both active and passive uses. Passive uses will include bird watching and natural areas. Active uses will include walking within the natural areas. No paths are proposed in order to preserve the open space in its natural state. Aside from the areas disturbed during construction, no new landscaping or landscaping features are proposed. At time of PD final approval the applicant will submit, for City review and approval, a maintenance agreement for the open space area.

E. Timely Provision of Public Services and Facilities:

Response: Evidence that adequate capacity for these services (which include water, sanitary sewer, stormwater management and traffic management) is available to serve the PD has been provided under Section 17.64.100B in the narrative and on the Preliminary Utility Plan drawings. A Traffic Impact Analysis by Group McKenzie has been submitted as a separate document.

F. Public Service or facility guarantee

Response: The applicant, upon preliminary approval, will work with the city to determine that the public services provided are adequate for the existing site and that over-sizing will not be required.

G. Relationship to the Natural and Physical Environment:

Response: Every effort has been made to preserve trees, drainage ways, steep slopes and water resources in undeveloped areas of the site. This has been accomplished by preserving an ample amount of open space and by including a significant percentage (45%) of clustered duplexes among the total PD density.

A preliminary grading plan will indicates areas and degree of impact from development construction. The site will involve a significant amount of earth work and soil importation. The proposed trade-off for the impacts is the large percent of natural area left undisturbed. Only 66% of the site will be developed.

17.64.050 Density bonuses and density transfers

Response: The applicant is not seeking a density bonus for this PD,

17.64.070 Pre-Application Conference

Response: Pre-application conference 99-109 was held on January 5, 2000. 1 copy of the notes are attached to this application.

17.64.080 Preliminary PUD Application

Response: The written narrative, drawings and separate studies attached to this application constitute a compilation of the preliminary materials required for a PD application submission.

17.64.090 Required Plans

Response: The following plans have been submitted with this application: Site Plan; Natural Features Plan; Topography, Preliminary Utility Plans, Grading and Storm Drainage Plan; Erosion Control Plan; Tree Survey.

17.64.100 Preliminary PUD Plan – Narrative Statement
A. PUD Description

Response: The owner of this property is proposing to develop 8.35 acres as a planned development. The PD requires that 80% of the gross acreage (388,734sf) be developed with a density that is consistent with the R10 base zone. The owner is proposing a total of 31 housing units (or 85%) with 24 lots. 17 units will be single family residences and 14 units (duplexes on 7 lots) will be clustered multi-family. Oregon City requires that Planned Developments include a minimum of 20% multi-family housing and that 20% of the property be reserved as open space. The site plan has exceeded these requirements. More than 34% of the land has been preserved in open space. The housing density tabulation results in 55% single family (17) units and 45% multi-family (14) units. Consolidation of housing helps provide more efficient land utilization on a site that has steep slopes.

The proposed site layout plan provides for a continuation of Oak Tree Terrace as a public street. It branches off at two points to the south to create the single family and duplex housing clusters. The PD's major open space area separates the two clusters with natural terrain. The multi-family area also has its own green space. Oak Tree Terrace separates Lots 5,6 and 7 from the duplexes. Both new streets serving the clusters will be public streets with sidewalks on both sides.

The PD lot layout has been developed using R6 zoning as a model. The lots are sized with the lot area, width, depth and setback standards for the R6 zone in mind. As a result all lots will be 6000 sf or greater, have a width of 60 feet or greater and a minimum depth of 85 feet. The lot configurations tend to be a little wider and less deep than the standard R6 lot. An adjustment to reduce the lot depth standard in the R6 zone from 100 feet to a minimum of 85 feet is requested.

An adjustment to the standard R6 rear setback is also requested for the PD. Due to the narrower depth of half of the lots in this planned development the applicant requests that the minimum rear setback at 15 feet instead of 20 feet.

The proposed open space will serve as a natural and passive recreation area. The remaining water resource value of the open area should ideally be protected from too much intrusion. The impacted water resource area (north of Oak Tree Terrace between lots 3 and 4 will be replanted and bank stability restored. The area will be kept in a separate tract as will the open space to the south and maintenance agreements will be submitted with final PUD approval.

The site will be fully improved with public services and this is evident in the preliminary utility drawing which is attached.

B. Timely Provision of Public Services and Facilities

Response: details are shown on the Preliminary Utility Plan

Water: A 6 inch water line sits under Oak tree Terrace and connects to a main in Holcomb Rd.. The applicant will extend this line and provide two stubs down the proposed new north south streets to service the planned development.

Sanitary Sewer: There is an existing sanitary sewer that runs through the site. However half of it will be relocated and rebuilt to service the lot configuration proposed for this planned development. The current sanitary sewer runs at a diagonal across lots 15 and 17, through the cul-de-sac and between lots 10 and 11. The new sanitary sewer will run down Oak Tree terrace and then turn down the cul-de-sac road and connect to the existing pipe that extends outside the property.

Storm Sewer, Water Detention and Drainage Facilities:
Storm water management on a site this steep is challenging and of great concern. The proposed plan uses a mixture of services and strategies to ensure that runoff is controlled and erosion prevented. *Please see "Engineering Summary" for details.*

Traffic and Streets: The grading plan for the new streets has been included in the drawings. Streets will include 50 foot right of ways with sidewalks and street trees planted in a landscape easement.
A traffic impact analysis has been done for the site and is under separate cover. The study indicates the site can handle the additional traffic from the new development and access to Holcomb Rd. is sufficient.

C. Approval Criteria and Justification for Adjustments

Response: The development of this property is consistent and complies with the requirements of Sections 17.64.010 and 17.64.040 and the Oregon City comprehensive plan. Sections 17.64.010 and 17.64.040 have been addressed within this narrative under the appropriate section numbers above.

The Oregon City comprehensive plan requires this site to be developed meeting the R10 zoning requirements. The backbone of this requirement is

the need to achieve the density. As stated on page 12 of this narrative, this site must accommodate a minimum of 29 units. The proposed plan of 31 meets this goal.

Due to the topographic constraints on the site, it could not be developed at the R10 density and still meet the dimensional requirements of the underlying R10 zone. For this reason we have adopted the R6 dimensional standards to use as a framework. Because of the topographic constraints and the need for public streets, we need to have the flexibility to reduce the lot depth to 85' as opposed to the R6 zone standard of 100'. This lot depth reduction leads to a need for a setback reduction in order to accommodate a reasonable house footprint.

Without the adjustments requested, this property could not be developed and meet the R10 density requirements. As a result, these adjustments help in allowing Oregon City to meet its density requirements under Metro's 2040 plan and thus its comprehensive plan requirements.

The following table provides information about lot size and dimensions for all lots proposed in the PUD. As intended under the proposed layout , lot areas do vary and range in size from 6,000sf to over 10,000. The average lot size is smaller than the requirement of the R10 base zone because the PUD was designed around the R6 residential zone development standards.

R6 single dwelling zone requires lots be a minimum of 6000sf, an average of 60 feet wide and an average of 100 feet in depth. The applicant needs an adjustment to the R6 lot depth standard to lots to be a minimum of 85 feet deep. The minimum lot depth proposed for the PUD is 85 feet.

It is presumed with the lots designed to these standards that the developer will conform to the R6 setback standards that include:

Front yard – 20 feet
Side yard – 9 and 5 feet
Corner yard – 15 feet
Rear yard – 20 feet

The applicant is asking that the rear setback standard be reduced to a minimum of 15 feet for all lots in order to provide a suitable building area for the lots which are less than 100 feet deep.

As the setback lines on the site plan indicate, more than half of the lots in the planned development do meet the 20 foot setback standard. However Lot 11 will need a 10 foot rear setback adjustment and Lot 13 will need a 15 foot setback adjustment.

Below is a list of lot area, width and depth for each lot in the PUD.

LOT	LOT AREA	WIDTH	Rear Setback	DEPTH
	Area in SF	At widest point	Adjustment	At deepest pt.
SINGLE FAMILY				Adjustment**
LOT 1	8765	71		130
LOT 2	7679	71		117
LOT 3	7596	81		101
LOT 4	6371	77		86**
LOT 5	6000	68		88**
LOT 6	6000	69		87**
LOT 7	6000	69		86**
LOT 8	6000	70		86**
LOT 9	6000	61		99**
LOT 10	6847	75		99**
LOT 11	8808	96		122
LOT 12	7893	87		122
LOT 13	8325	80 (avg)		89**
LOT 14	7227	68		89**
LOT 15	6000	62		100
LOT 16	6060	61	15 feet	100
LOT 17	8081	97		133
DUPLEXES	Lot Area	Width		Depth
				At deepest pt.
LOT 18	7193	100		100
LOT 19	7127	100		100
LOT 20	7045	103		103
LOT 21`	7789	114		114
LOT 22	7903	68		110
LOT 23	10793	95		140
LOT 24`	6417	76		88**

D. Geologic Hazards

Response: A qualified geo-technical scientist has assessed the site and submitted a geo-technical report which is included with this application.

E. Water Resources

Response: A qualified wetlands scientist has delineated the site and submitted a wetland delineation report included with this application. A summary of the water resource issues is provided in this narrative under Section 17.49 as well as in the wetlands report.

F. Historic, Archeological, Geological, Scenic Resources and Significant Trees

Response: The site does not have any culturally significant resources. A complete tree survey has been submitted with the application and may be reviewed as the existing conditions/natural features drawing.

G. Covenants Conditions and Restrictions (CC&R's)

Response: Any applicable CC&R's will be submitted prior to final PUD approval. This will include guidelines governing a homeowner's association. The area designated as Open Space will remain open space tract that is excluded from future development. Oak Tree Terrace is the continuation of a public street and should be maintained by the City. Maintenance of the storm water detention area will be the joint responsibility of all property owners.

17.64.110 Preliminary PUD Plan –

A. **Response: Tabular information**

AREA	ACREAGE	% OF TOTAL AREA
Gross Area of PUD	8.35 acres	100%
Net Developable Area	6.68 acres	80%
ACREAGE BY USE		
Single Family Lots	2.73 acres	33%
Multi Family Lots	1.25 acres	15%
Open Space	2.83 acres	34%
Public Road	1.41 acres	17%
Storm Tract	0.12 acres	1%
	= 8.35 acres	= 100%
DENSITY	31 UNITS	> 29 met
Single Family Housing	17 Units	55% of Density
Multi-Family Housing	14 Units	45% of Density

B. Response: Tabular information

DESCRIPTION	PHASE I	PHASE II	PHASE III
TIMING	2001-2002	2002-2004	2004-2006
ACREAGE	1.07	1.99	5.29
NUMBER OF RESIDENTIAL UNITS	5	8	18
NON-RESIDENTIAL AREA	0	0.12	0
OPEN SPACE AREA	0	0.18	2.75
% OF UTILITIES DEVELOPED	90%	93%	100%
% OF STREETS DEVELOPED	36%	69%	100%

C. The gross density for the site, based on PUD standards requires 80% development of housing units based on the underlying zone. 80% of 8.35 acres under R10 zoning is 290,980 sf. This land area would require 29 units. The applicant has proposed 31 units.

D. Response: Tabular information

SLOPE	SLOPE AREA (acres)	IMPERVIOUS AREA (acres)
0.0% TO 24.9%	5.29	2.25
25.0% TO 34.9%	1.66	0.11
OVER 35.0%	1.40	0.04

17.64.120 Preliminary PUD plan approval criteria

A. Response: The development of this property is consistent and complies with the requirements of Sections 17.64.010 and 17.64.040 and the Oregon City comprehensive plan. Sections 17.64.010 and 17.64.040 have been addressed within this narrative under the appropriate section numbers above, and compliance with the Oregon City comprehensive plan is addressed in Section 17.64.100C above.

B. Response: Aside from the adjustments requested under Section 17.64.040C in this narrative, this development meets the applicable requirements of the underlying zoning district and has been developed at a density that is consistent with the underlying R10 zoning. Compliance with the Water Resources Overlay District is addressed in

Section 17.49 of this narrative and the Unstable Soils and Hillside Constraint Overlay District is addressed in Section 17.44 of this narrative.

C. Response: The phasing plan as shown in Section 17.64.110B is reasonable and does not exceed 5 years. Dedication or preservation of the open space will be addressed at final PUD approval

D. Response: Evidence that adequate capacity for these services (which include water, sanitary sewer, stormwater management and traffic management) is available to serve the PD has been provided under Section 17.64.100B in the narrative and on the Preliminary Utility Plan drawings. A Traffic Impact Analysis by Group McKenzie has been submitted as a separate document.

E. Response: All of the adjustments to the applicable dimensional requirements are necessary to achieve the purposes and requirements of this chapter. Due to the topographic constraints of the site, the lots could not be developed at the density required by the underlying R10 zone without the necessary adjustments that were requested. Direct compliance with the dimensional requirements of the underlying zone would make the property undevelopable at the underlying zones required density.

17.64.140 Site Plan and Design Review

Note: It is understood that single family and duplex proposal do not need design review.

RESPONSE: 14 duplexes are proposed on 7 lots for this PD project. The applicant will present a sample building layout and building elevations with a description of building materials to the principal planner prior to final approval of the building permit. Each duplex will have a garage and provide two (2) off-street parking spaces. The site plan also provides for one additional on-street parking place for each duplex lot. As a result each duplex lot will have a minimum of 4 parking spaces available – three on site and one off site.

CHAPTER 17.44 UNSTABLE SOILS AND HILLSIDE CONSTRAINT OVERLAY

17.44 Purpose

Response: The applicant concurs that a conservative approach to development of this site is appropriate because areas of the property do have steep slopes. At the same time the geo-technical report included with this application verifies that the proposed development area will not cause a potential landslide hazard. Guidelines for construction from the geo-technical report have been suggested, After the city reviews this report, appropriate standards for building on this site can be determined. Clustering development in the less steep areas allows density to be met and leaves a large percentage of land as natural areas.

17.44.030 Applicability and Procedures

Response: The provisions of this chapter apply in conjunction with the Oak Tree Terrace PD land use application.

17.44.050 Development Permit Application

Response: As required by this section the following drawings and reports have been provided with this application:

A. **Site plan with topography; trees, water resources, drainage ways, and steep slopes.**

B. **Grading plan for roads and cut and fill soil ratios.**

C. **Exempt – buildings will only be single family residences and duplexes**

D. **Excavation and fill cross section diagram**

E. **Erosion control plan addressing items (a) through (g) as required.**

F. **Hydrology Report**

G through H. A geotechnical report which includes hydrology, geology and soil analysis and which meets the requirements of Clackamas County

17.44.060 Development Standards

A. As stated in this section the purpose of the standards serve to avoid unnecessary disturbance of topography, vegetation and soils. To the maximum extent possible tree and ground cover removal for residential lots shall be confined to building footprints and driveways, utility and road construction.

Response: The major consideration for designing the PD layout around R6 base zone standards instead of R10 was to maximize developable land to meet density requirements for the PUD while leaving as much open space as possible. This has been done by reducing average lot sizes and locating development on the less steep terrain. There is a long north to south drainage way which runs through the center of the site and the extension of Oak Tree Terrace will cross it. Other than this crossing the steepest areas on the site have been left as open space and the steepest and most wet areas of each lot have been designated as rear yards and will not be built on.

B. Designs shall minimize cuts and fills.

Response: Cut and fill estimates for the roadway and preliminary grading have been submitted with this application. Grading for each lot will conform on an individual basis to the existing permit process at Oregon City.

C. Toes of cuts and fills shall be set back from boundaries of separate private ownership at least 3 feet plus one-fifth of the vertical height of the cut and fill.

Response: The builder will comply with this standard on a lot by lot basis under the building permit process. This will apply to the entire site boundary and it's relationship to adjacent residential properties.

D. Except in connection with approved plans for geo-technical remediation, cuts shall not remove the toe of any slope that contains a known landslide or is greater than 25%.

Response: The applicant will comply with this standard and submit geo-technical remediation plans where required or where the slope would exceed 25%. The geo-technical report confirmed that no known landslide hazards exist in the proposed grading areas.

E. Any structural fill shall be designed by a qualified civil or geo-technical engineer...

Response: The applicant's engineer will certify that the fill has been constructed as designed in accordance with the provisions of Chapter

17.44. Fill will be required for development of this site and the standard will be met on a project by project basis as permits are pulled.

F. Retaining walls shall be constructed in accordance with the Oregon's Uniform Building Code.

Response: Retaining walls (shown on the grading plan) will be required for construction of the road and the small parking area. The construction of these walls will meet the requirements of the Oregon Uniform Building Code.

G. Roads shall be minimum width to provide safe vehicle and emergency access while minimizing cut and fill to provide positive drainage.

Response: All roads proposed have 50 feet right of ways and will include sidewalks on both sides. Planter strips for street trees will be placed in landscape easements on individual properties to minimize road width. The proposed road widths are suitable for the design of public streets and safe emergency vehicle access.

H. Density

Response: The property is being developed as a Planned Development and is exempt from this sub-section.

I. Property with slopes of twenty five to thirty five percent slopes between grade breaks:

1. Density limits:

   Response: Density and Building limits of planned development apply.

2. Grading and Vegetation removal limits:

   Response: The applicant agrees that no more than 50% or 4000 sf of the surface area of an individual lot (whichever is smaller) will be stripped of vegetation or covered with structures or impermeable surfaces.

J. For the portions of the property with slopes over 35% between grade breaks.

1. Development is prohibited with exceptions: Roads, utilities, public facilities and geotechnical remediation.

Response: No development other than those approved will be located on property with slopes over 35% between grade breaks. Although small portions of buildings shown on the site plan encroach into these areas, these buildings are only conceptual to show possible lot grading scenarios. Building permits for each lot will be through the building permit process.

2. To the maximum extent possible, avoid locating utilities, roads, and public utilities on these slopes:

Response: The applicant has avoided locating utilities and roads on these slopes to the maximum extent possible. The purpose of the PD was to leave as much of the steep slope property alone, while developing the less steep portions.

K. Review authority discretion for geo-technical re-mediation and construction:

Response: The applicant acknowledges the reviewer's authority and discretion over geo-technical re-mediation decisions.

17.44.070 Access to Property

Response:
A. The duplexes may have shared driveways.
B. At time of building permit driveway design will be reviewed and approved
C. Points of Access to arterials and collectors have been minimized.
D. The City Engineer will verify that emergency services are adequate.

17.44.080 Utilities

Response: New utilities will be placed underground and utility construction impact will be minimized as much as practical.

17.44.090 Stormwater Drainage

Response: A stormwater drainage plan and a hydrology report have been submitted with this application. Final storm drainage design shall meet the requirements of the City of Oregon City and shall be approved by the City Engineer prior to construction.

17.44.100 Construction Standards

Response A-G: The applicant has read and acknowledged the purpose of the construction standard section and agrees to comply with these standards at the time construction is initiated.

Chapter 17.49 – Water Quality Resource Area Overlay

17.49.010 PUD Purpose

Response: The developer of Oak Tree Estates PUD acknowledges that the purpose of this chapter is to protect and improve water quality, to support beneficial water uses and to protect the functions and values of existing and newly established Water Quality Resource Areas. Compliance with the standards of this overlay zone is being submitted concurrently with the planned development application. A wetlands report has been included in the application materials. All information provided in the narrative response to this section and in the preliminary site plan has referenced the analysis of the wetlands report prepared by Mirth Walker of Fishman Environmental.

17.49.030 Applicability

Response: The proposed PUD development must comply with the regulations of this chapter because the property is zoned with the Water Quality Overlay District designation.

17.49.040 Administration

A 2. Applicants are required to provide the City with a field verified delineation of the Water Quality Resource Areas on the subject property in their application.

Response: The applicant has provided this information for the City to review. See separate wetlands report which is with this application.

A 4(a). Compliance with federal and state regulations.
The applicant is responsible for making application for necessary state or federal approval in conjunction with the submittal of their development application.

Response: The applicant acknowledges that any permit issued by the City pursuant to this chapter shall not become valid until other agency approvals have been obtained or those agencies indicate that such approvals are not required.

17.49.050 Water Quality Resource Area Standards

A. The standards serve to protect and improve the beneficial water uses and functions and values of the Water Quality Resource Areas.

B. The Water Quality Resource Area is the vegetated corridor and the protected Water Feature. The width of the vegetated corridor is specified in Table 1.

Response: Vegetated Corridor Boundaries and slope measurements are included in the wetlands report by Fishman Environmental.

C. Uses Permitted Outright.

Response: Stream, wetland, riparian and upland enhancement is allowed. Wetland enhancement will be performed on the lower portion of the site to mitigate for the wetlands being impacted by the road construction.

D. Uses Under Prescribed Conditions.

Response: None are proposed

E. Provisional Uses
The following uses are allowed in the Water Quality Resource Area subject to compliance with the application requirements and development standards of subsections G and H.

Response: The uses listed below apply directly to this development.

1. **Any use allowed in the R10 base zone.**
2. **Roads to provide necessary ingress and egress across Water Quality Resource Areas.**
3. **New public or private utility facility construction.**
4. **Walkways and bike paths.**
5. **New storm water treatment facilities.**

F. Prohibited Uses

Response: No prohibited uses are proposed.

G. Application requirements:

Applications for Provisional Uses in the Water Quality Resource Area must provide the following information in a water resources report in addition to the information required for the base zone.

Response: The water resources report has been prepared by a qualified professional whose credentials are listed in the report. The wetlands scientist (using the topographic survey) has provided a response to the requirements of items 1 through 12. Please see wetlands report by Fishman Environmental. Trees requested under Item 2 are shown on the Tree survey by WB Wells and Associates, Inc.

11. Alternatives Analysis

The applicant is proposing only allowed provisional uses within the water resource area. No practical alternatives to the road alignment, walkways along that road or the utility configurations under the road are possible if the planned development is to be built to city standards. Limitation of adverse impacts to the resource area will be achieved through thoughtful design of facilities, careful grading and proper erosion control. The project will be constructed to limit disturbance and negative impact on the Water Resource Area to the minimum extent possible.

12. Mitigation

The road crossing is necessary to provide ingress and egress to the site and cannot be avoided. The applicant has been able to reserve more than 34% open space (14% beyond the requirement) to allow for the natural function and values of the property to remain undisturbed. The additional 14% of open space is intended to compensate for the roadway disturbance. In addition the applicant will mitigate the roadway crossing with restoration plantings and enhancement of the damaged area. A separate Water Quality Resource Mitigation Plan has addressed in the wetlands report and a final mitigation plan will be prepared upon approval of this application. See the wetlands report for a more detailed response to this item.

H. Development Standards

Applications for provisional uses in the Water Quality Resource Area shall satisfy the following standards.

Response: The applicant has worked to provide evidence that each standard listed below, relevant to this development, will be satisfied to the fullest extent when the development is built.

1. **The resource area shall be mitigated as described in the wetlands report by Fishman Environmental.**
2. **Existing vegetation will be protected and work areas will be controlled so as to reduce damage to surrounding vegetation.**
3. **Where vegetation is removed or contours altered the site affected will be replanted as soon as possible during the next planting season.**
4. **The Water Quality Resource Area will be marked prior to construction and remain undisturbed except where provisional uses are being constructed. Markings will remain in place until construction is complete.**
5. **Walkways will not be constructed within 10 feet of the boundary of the protected resource unless allowed and approved as part of the provisional use.**
6. **Provisions of the storm water quantity and quality control facilities (6a to 6d) have been met and may be reviewed on the utility site and storm**

water plan. Preliminary storm water design was completed in cooperation with the advice of City engineering staff.
7. No existing structures have been altered or redesigned in this project.
8. Off-site mitigation will not be necessary for this project. All mitigation will be performed on-site in the open space.

l. Vegetation Corridor width reduction

Response: This is not requested in this PUD application.

17.49.060 Subdivisions and Partitions

Response: This application is being submitted for a Planned Development and certain requirements of this chapter do not apply. The wetlands impacted by the road construction will be mitigated in an area that will be part of the open space tract.

17.49.070 Density Transfers

Response: The applicant is not requesting any density transfers.

17.49.080 Variances

Response: No variances are requested in this application.

17.49.090 Map Administration

Response: No mapping amendments or modifications to resource areas are requested with this application. No Title 3 wetlands will be added.

GEOPACIFIC ENGINEERING, INC.

Real-World Geotechnical Solutions
Investigation • Design • Construction Support

January 11, 2001

Project No. 99-4192

Project: 31-Unit PUD
Legal Description: 2S-2E-28A
Tax Lots 1712, 1714, 1717, & 1722

City of Oregon City
Community Development Dept.
320 Warner Milne Road
Oregon City, Oregon 97045
Fax: 503-657-7892

WB Wells
4230 NE Fremont Street
Portland, Oregon 97213

Lowell Wittke
16281 Oak Tree Terrace
Oregon City, Oregon 97045

ADDENDUM TO GEOTECHNICAL INVESTIGATION
OAK TREE SUBDIVISION
OREGON CITY, OREGON

Original Report: ADaPT Engineering Inc. report dated July 18, 2000.

The purpose of this letter is to respond to the City of Oregon City **Determination of Application Completeness.** File PD 00-01 & WR 00-01, specifically items OCMC 17.44.050 (G) and 17.44.050(H) on page 4 of 4 in letter dated November 6, 2000. Our response should be considered as an addendum to our ADaPT report; Geotechnical Investigation, Oak Tree Subdivision, Oregon City Oregon, dated July 18, 2000. The report may also be considered to serve as an engineering geology report and was prepared under the supervision of a licensed engineering geologist.

Please note that since that report was issued by ADaPT, the company name has changed due to an employee buyout of the office. The company personnel, phone/fax, and address remain essentially unchanged and this supplemental work was assumed by the newly formed company as part of the buyout agreement.

We have reviewed the site plans provided by W.B. Wells and revised our **SLOPE STABILITY** section on page 4 of the initial geotechnical report as follows:

The stability of the subject site that is proposed for development is controlled by the strength of the underlying Troutdale Formation, which as previously described from the test pit observations, consists of hard rounded gravels in a variable matrix of silty sand and clayey silt overlying dense brown micaceous sandy silt. No evidence of slope instability (slumps, landslides, tilted trees, springs or seeps) were observed in the developable area other than the sewer alignment seepage previously mentioned. **At some elevation below the portion of the site to be developed, the Troutdale Formation is likely underlain by the Sandy River Mudstone Formation, a generally less stable geologic unit. Topographic features suggest the contact may be as high as elevation 250 feet but this is by no means a definite line. We recommend**

that all of the green space below an elevation of 260 feet be designated as a geologic hazard area and should remain undisturbed from construction or tree cutting due to potential for adverse impacts to the site.

In addition, based on our review of the site grading plan prepared by W.B. Wells, we revise the **Cut and Fill Slopes** section of the initial report (page 5) as follows:

Fill slopes should not be inclined steeper than 2H:1V (50% grade. If structural fill is placed on grades steeper than 20 percent grade, we recommend that the fill be emplaced within an excavated keyway and benched native soil (see Figure 3), and an engineering geologist should review the keyway during construction. The engineering geologist should review any changes to the grading plan. **The fill slopes on Lots 17 and 18 and to a lesser extent on Lots 11 through 14 and 19 through 22 will require considerable construction monitoring to provide adequate long-term stability. However, these proposed fill slopes when constructed in accordance with recommended methods are reasonably likely to remain stable and not incur landslide damage to properties over the long term.**

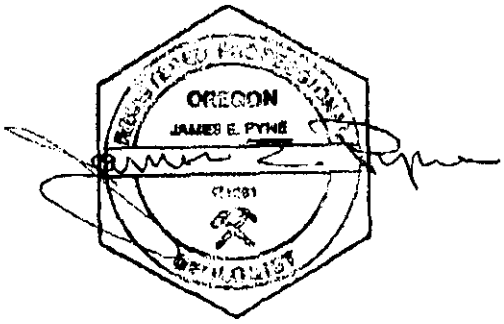
General Notes

We hope this addendum letter is satisfactory and meets with your approval. We apologize for the delay in our response to your letter of November 6, 2000.

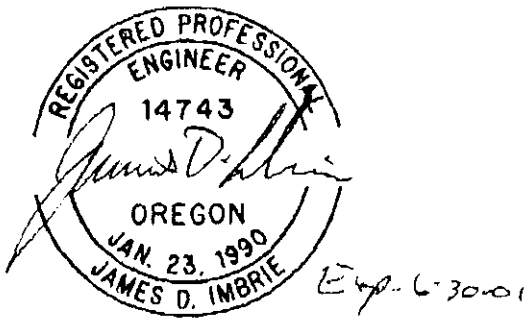
We are prepared to provide geotechnical monitoring, testing, and consulting during site development and construction.

Sincerely,

GEOPACIFIC ENGINEERING, INC.



James E. Pyne, R.G.
Senior Geologist



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

July 18, 2000

Job No. OR99-4192

Mr. Lowell Wittke
16281South Oak Tree Terrace
Oregon City, Oregon 97045

RE: GEOTECHNICAL INVESTIGATION
OAK TREE SUBDIVISION
OREGON CITY, OREGON

This report presents the results of our geotechnical investigation of the proposed Oak Tree Subdivision in Oregon City, Oregon. The purpose of our investigation was to evaluate subsurface conditions at the site and to provide geotechnical recommendations for the proposed residential development. Our work was performed in accordance with our proposal No. 00-P1108, dated 5 April 2000.

BACKGROUND INFORMATION

Project Information

Location:	South and west of the south end of South Oak Tree Terrace in Oregon City, Oregon (see Figure 1).
Owner/ Developer:	Lowell Wittke (see address above)
Civil/Structural Engineer:	W.B. Wells & Associates, Inc. 4230 N.E. Fremont Street; Portland,Oregon 97213
Jurisdictional Agency:	Oregon City, Oregon

Site Description And Proposed Development

The subject site consists of about 8.9 acres The Wittke residence is located at the end of Oak Tree Terrace in the northeast portion of the site between elevations 360 and 370 feet. Elevations across the site range between about 780 and 223 feet at the head of an incised drainage. Grades range between about 10 and 30 percent with maximum slopes approaching 40% grade. Drainage is to the south and southeast. Most of the southern half of the property is densely wooded. The northern portion contains scattered oak trees and dense patches of blackberries. Evidence of previous earthwork is present on the site in the form of street fill, cuts, and sewer line construction. A preliminary street fill extends westward from just south of proposed Lot 1 to the Water Quality Tract between Lots 3 and 4 (Figure 2). Existing sewer lines are also located on Figure 2.

The proposed development includes 17 lots for single-family residences, and duplexes on Lots 18-24. The steeper portions of the site (3 acres) will remain as wooded open space (Figure 2). The existing Wittke residence and garage will be remain. Approximately 1,380 lineal feet of streets are planned. About 300 feet of existing sewer alignment will have to be relocated because it crosses the building portions of Lots 15 and 17. Grading details showing cuts, fills, and retaining structures were not provided for our review. Storm water facilities are planned between Lots 3 and 4.

REGIONAL GEOLOGIC AND SEISMIC SETTING

The subject site is located in an area characterized by broad topographic highlands capped by Boring Lava. These highlands are separated by incised drainages that expose both the Troutdale and Sandy River Mudstone Formations. Catastrophic Flood Deposits are present along major drainages below about elevation 300 feet, and Quaternary alluvium is present along the Clackamas and Willamette Rivers. Miocene age Columbia River Basalt is exposed along major streams , and likely is present under most of the region.

Structural features are largely blanketed by overlying sediments. At least three major fault zones capable of generating damaging earthquakes are known to exist in the region. These include the Gales Creek-Newberg-Mt. Angel Structural Zone, the Portland Hills Fault Zone, and the Cascadia Subduction Zone.

Gales Creek-Newberg-Mt. Angel Structural Zone

The Gales Creek-Newberg-Mt. Angel Structural Zone is a 50-mile-long zone of discontinuous, NW-trending faults that lies about 20.5 miles southwest of the subject site. These faults are recognized in the subsurface by vertical separation of the Columbia River Basalt and offset seismic reflectors in the overlying basin sediment (Yeats et al, 1996; Werner et al, 1992). A recent geologic reconnaissance and photogeologic analysis study conducted for the Scoggins Dam site in the Tualatin Basin revealed no evidence of deformed geomorphic surfaces along the structural zone (Unruh, 1994). No seismicity has been recorded on the Gales Creek or Newberg Faults (the faults closest to the subject site); however, these faults are considered to be potentially active because they may connect with the seismically active Mount Angel Fault and the rupture plane of the 1993 M5.6 Scotts Mills earthquake (Werner et al. 1992; Geomatrix Consultants, 1995).

Portland Hills Fault Zone

The Portland Hills Fault Zone is a series of NW-trending faults that vertically displace the Columbia River Basalt by 1,130 feet and appear to control thickness changes in late Pleistocene (approx. 780,000 years) sediment (Madin, 1990). The fault zone extends along the eastern margin of the Portland Hills for a distance of 25 miles, and the southern extension lies about 2 miles northeast of the subject site. Geomorphic lineaments suggestive of Pleistocene deformation have been identified within the fault zone, but none of the fault segments have been shown to cut Holocene (last 10,000 years) deposits (Balsillie and Benson, 1971; Conforth and Geomatrix Consultants, 1992). No historical seismicity is correlated with the mapped portion of the Portland Hills Fault Zone, but in 1991 a M3.5 earthquake occurred on a NW-trending shear plane located 1.3 miles east of the fault (Yelin, 1992). Although there is no definitive evidence of recent activity, the Portland Hills Fault Zone is judged to be potentially active (Geomatrix Consultants, 1995).

Cascadia Subduction Zone

The Cascadia Subduction Zone is a 680-mile-long zone of active tectonic convergence where oceanic crust of the Juan de Fuca Plate is subducting beneath the North American continent at a rate of 4 cm per year (Goldfinger et al., 1996). Very little seismicity has occurred on the plate interface in historic time, and as a result, the seismic potential of the Cascadia Subduction Zone is a subject of scientific controversy. The lack of seismicity may be interpreted as a period of quiescent stress buildup between large magnitude earthquakes or as being characteristic of the long-term behavior of the subduction zone. A growing body of geologic evidence, however, strongly suggests that prehistoric subduction zone earthquakes have occurred (Atwater, 1992; Carver, 1992; Peterson et al., 1993; Geomatrix Consultants, 1995). This evidence includes: (1) buried tidal marshes recording episodic, sudden subsidence along the coast of northern California, Oregon, and Washington, (2) burial of subsided tidal marshes by tsunami wave deposits, (3) paleoliquefaction features, and (4) geodetic uplift patterns on the Oregon coast. Radiocarbon dates on buried tidal marshes indicate a recurrence interval for major subduction zone earthquakes of 250 to 650 years with the last event occurring 300 years ago (Atwater, 1992; Carver, 1992; Peterson et al., 1993; Geomatrix Consultants, 1995). The inferred seismogenic portion of the plate interface lies roughly 49 miles west of the subject site.

SITE GEOLOGY

The subject site is underlain primarily by the Troutdale Formation (DOGAMI Bulletin 99, 1979). The Boring Lava appears to be present in-situ at elevation 380, but soil and rock fragments from weathering of the Boring blankets the ground surface for a considerable distance down gradient. Nine feet of colluvial soil from weathered basalt was found over the Troutdale Formation in test pit TP-1 at about elevation 325 feet, with lesser amounts observed in TP-2 and TP-3. The base of the Troutdale Formation was not reached in the exploratory test pits; however, based on topography it appears to be well below the portion of the site planned for development.

SUBSURFACE CONDITIONS

Our site exploration was conducted on May 2, 2000. A total of five test pits were excavated to depths ranging between 6.0 and 10.5 feet at locations shown on Figure 2. Recognized soil zones or units are discussed below. Detailed logs of the test pits are presented in Appendix A.

Soil

Topsoil – Topsoil was not found in test pits TP-1 and TP-2 due to previous soil disturbance by trenching and pipe installation. At other test pit locations, it was found to range between 6 and 13 inches in thickness, and consist of brown to grey silt with some to traces of clay and some organic debris.

Alluvium – Alluvial soils were found only in test pit TP-3, located within the drainage that flows southwest across the site. At this location, the alluvial deposits consist of grey-brown silt with some clay over light tan to grey mottled clayey silt with abundant brown basalt fragments that are weathered to clayey silt.

Colluvium – These soils near the Boring Lava exposures consist of reddish-brown clayey silt with abundant basalt fragments. They are generally moist, medium soft to stiff. Colluvial soils from the Troutdale Formation are as variable as the formation itself, and consisted of rounded basalt gravels in a matrix of clayey silt and mottled light grey and brown clayey silt. In general, colluvial soils are less stiff than the parent deposit.

Fill - A considerable amount of fill has been placed and paved with asphaltic concrete between the south end of Oak Tree Terrace and the drainage crossing by the proposed road alignment 1 (see Figure 2). Much of this fill appears to have been taken from earthwork activity in the area of proposed Lots 4, 5, and 6. No documentation has been provided for this fill.

Troutdale Formation – The Troutdale Formation was encountered in all of the exploratory test pits. It appears to have a considerable lateral as well as vertical lithologic variation from weathered fine to coarse sandy gravel; coarse rounded gravel in sandy clay; weathered fine to coarse gravel with clayey silt to silty clay; brown fine to coarse gravel with occasional cobble in micaceous, fine sandy silt; and brown micaceous silt with occasional weathered rock fragments. This lithologic variation is typical of alluvial deposition. At all locations, the in-situ Troutdale was found to be hard to dense or very stiff with no evidence of slumping or sliding.

Soil Moisture and Groundwater

On May 2, 2000 the general soil moisture conditions for colluvial soils observed in the test pits were very moist due to recent heavy precipitation and shading by vegetation; however, no groundwater was encountered in any of the test pits. The existing sanitary sewer alignment apparently is a conduit for groundwater accumulation and movement. Surface seepage was observed where the alignment crosses the site drainage (see Figure 2).

LIQUEFACTION HAZARD

The conditions necessary for liquefaction to occur at any site are: (1) the presence of poorly-consolidated, cohesionless sediment, (2) saturation of the sediment by groundwater, and (3) an earthquake that produces intense seismic shaking (generally a Richter Magnitude greater than M5.0).

In our opinion, the potential for liquefaction or liquefaction related ground failure at the subject site is very low . Our assessment is based on the following points.

(1) Field performance data and laboratory tests indicate that liquefaction generally occurs in well-sorted, loose to medium dense (N=0 to 20) sand or silty sand with a mean grain size of 0.08 mm to 0.8 mm (Lee and Fitton, 1968; Seed and Idriss, 1971). Most fine-grained sediment that plots above the A-line on the Casagrade Plasticity Chart and containing more than 15% grains finer than 0.005 mm will not liquefy (Seed et al., 1983).

(2) No cohesionless sediments (sands) were observed in the exploratory test pits, and very stiff to hard Troudale Formation deposits were encountered at depths of between 2.5 and 9.0 feet below the ground surface. In our opinion, these sediments are not potentially liquefiable.

SLOPE STABILITY

The stability of the subject site is controlled by the internal strength of the underlying Troutdale Formation, which as previously described from the test pit observations, consists of hard rounded gravels in a variable matrix of silty sand and clayey silt overlying dense brown micaceous sandy silt. These soils underlie the portion of the site that is planned for development. No evidence of slope instability (slumps, landslides, tilted trees, springs or seeps) were observed in the area other than the sewer alignment seepage previously mentioned.

CONCLUSIONS AND RECOMMENDATIONS

Our investigation indicates that the proposed residential development is geotechnically feasible provided that the recommendations in this report are incorporated into the design and construction phases of the project. The primary conditions of concern at the site are locally soft colluvial soils to a general depth of about 9 feet and the apparent lack of documentation for the preliminary street fill. Appendix B contains an itemized checklist of soil testing and inspection procedures that are recommended to help guide the project to completion.

Plan Review

As previously mentioned, no grading or detailed storm water disposal plans have been provided for review. These plans should be forwarded to ADaPT for review as soon as they are available.

Site Preparation

All areas to be graded should first be cleared of debris (trees, stumps, vegetation), and all debris from clearing should be removed from the site. Organic-rich topsoil should then be stripped in construction areas or where fill is to be placed. We estimate local stripping depths to remove the uppermost organic soils and root zone will average about 6 inches across most of the site. After initial stripping, areas to receive fill should be extensively tilled a depth of at least 12 inches, aerated, and recompacted prior to start of engineered fill placement. This initial processing may be most important in the eastern portion of the site where colluvial soils from the Boring Lava are thickest. Stripping operations should be observed and documented by the geotechnical engineer or his representative. The final depth of stripping will be determined on the basis of a site inspection after the initial stripping has been performed.

If the on-site fill cannot be documented as properly placed and compacted, it will be necessary to remove it. The removed fill soil, if suitable for use on site, may then be moisture conditioned, placed, and compacted as engineered fill.

The existing sewer alignment across proposed Lots 15–17 will require relocation. Based on our site exploration, a route within the proposed street near test pits TP-4 and TP-5 would be entirely within competent Troutdale deposits, and minimize impact to site vegetation. The abandoned portion of the sewer line will continue to serve as a conduit for groundwater, and could develop springs that may destabilize the existing slopes on Lots 15 and 17. We recommend that the abandoned sewer alignment be removed completely and replaced by engineered fill having low permeability.

Rough Grading

All grading for the proposed development should be performed as engineered grading in accordance with Appendix Chapter 33 of the 1997 Uniform Building Code (UBC) with the exceptions and additions noted herein. Proper test frequency and earthwork documentation usually requires daily observation and testing during stripping, rough grading, and placement of engineered fill. Imported fill material must be approved by the geotechnical engineer prior to its arrival on site. Oversize material greater than 6 inches in size should not be used within 3 feet of foundation footings, and material greater than 12 inches in diameter should not be used in engineered fill.

The start of fill placement on ground sloping steeper than 20 percent will require keying and benching. Fill keys should be observed by a geologist for subdrainage and other concerns. Engineered fill should be compacted in horizontal lifts not exceeding 8 inches using standard compaction equipment. We recommend that engineered fill on Lots be compacted to at least 90% of the maximum dry density determined by ASTM D1557 or equivalent (Appendix A).

Field density testing should conform to ASTM D2922 and D3017, or D1556. All engineered fill should be observed and tested by the project geotechnical engineer or his representative. Typically, one density test is performed for at least every 2 vertical feet of fill placed or every 500 yd^3, whichever requires more testing. Because testing is performed on an on-call basis, we recommend that the earthwork contractor be held contractually responsible for test scheduling and frequency.

Earthwork is usually performed in the Summer months, generally mid-June to mid-October, when warm dry weather is available for proper moisture conditioning of soils. Earthwork performed during the wet-weather season will probably require expensive measures such as cement treatment or imported granular material to compact fill to the recommended engineering specifications. The recommended procedure is to thoroughly mix the subgrade soil in-place with 5% to 7% cement by volume (depending on the soil moisture content at the time of construction) and immediately compact to at least 90% of ASTM D1557 or equivalent. For wet-weather construction, soil subgrade beneath slabs-on-grade and pavement areas should be cement treated (as described above) to a minimum depth of 24 inches. No construction traffic should be allowed on compacted, cement-amended soils for at least four days after treatment.

Cut and Fill Slopes

Fill slopes should not be inclined steeper that 2H:1V (50% grade). If structural fill is planned on slopes inclined greater than 20 percent grade, we recommend that the fill be emplaced within an excavated keyway and benched native soil (see Figure 3), and our firm should be contacted to make further recommendations regarding keyway and bench design, both in a grading plan review and during construction.

Excavating Conditions and Utility Trenches

All deep excavations and shoring should conform to U.S. Occupational Safety and Heath Administration (OSHA) regulations (29 CFR Part 1926). The majority on on-site soils appear to be OSHA "Type B" soils and the walls of temporary construction trenches are expected to stand vertical with only minor sloughing.

PVC pipe should be installed in accordance with the procedures specified in ASTM D2321. We recommend that structural trench backfill be compacted to at least 90% of the maximum dry density obtained by Modified Proctor ASTM D1557 or equivalent. Initial backfill lift thickness for a ¾"-0 crushed aggregate base may need to be as great as 4 feet to reduce the risk of flattening underlying flexible pipe. Subsequent lift thicknesses should not exceed 2 feet. Typically, one density test is taken for every 4 vertical feet of backfill on each 200-lineal-foot section of trench. If manufactured granular fill material is used, then the lifts for large vibrating plate-compaction equipment (e.g. hoe compactor attachments) may be up to 2 feet, provided that proper compaction is being achieved and each lift is tested. Use of large vibrating compaction equipment should be carefully monitored near existing structures and improvements due to the potential for vibration-induced damage.

Drainage

Surface water drainage should be directed away from future structures and slopes. Roof drain water should be carried to the street. Footing drains should be carried to the storm system. Recommendations for footing drains are presented in the Anticipated Foundations section of this report. In-ground storm water disposal systems are not recommended due to low permeability of the clayey silt colluvial soils, the moderately indurated Troutdale Formation, and concerns for adversely impacting slope stability.

Erosion Control

Due to moderate to steep topography at the subject site, we consider the potential for adverse erosion during construction of the site to be moderate during the summer season and high during the winter. The erosion control plan for the project formulated by WB Wells and Associates, Inc. should be followed.

Rockery Walls

Currently, no retaining walls are shown on the preliminary site plan. However, there appears to be ample localities for effective utilization or rockery walls on the site, should they be desired.

Rockery walls should be constructed in accordance with the Association of Rockery Contractors (ARC) Standard Rockery Construction Guidelines with the following exceptions and modifications. Our recommended design for construction of rock walls up to 9 feet in total height is presented in Figure 4. A worst-case slope configuration (2H:1V) above the wall was assumed, and; therefore, the design exceeds standard ARC guidelines. The average allowable bearing pressure and the coefficient of base friction for wall footings were taken as 2,000 lbs/ft^2 and 0.35 respectively.

The stability of rockery walls is largely dependent on the quality of construction; therefore, we recommend that the proposed wall be constructed by a skilled builder with experience in rock wall construction. For walls supporting engineered fill, the fill should be constructed first, and should be overbuilt such that the wall is constructed against an excavation into already compacted fill. The minimum recommended depth of toe rock embedment into stiff native soil or engineered fill is 12 inches with an additional 6 inches of 1 ½"-0 crushed aggregate (see Figure 4). Keyways should be observed by a geotechnical engineer or his representative prior to placing aggregate base rock. In order to limit backfill movement through voids between boulders, we recommend that a minimum 1-foot-wide sheet of 4"-0 crushed aggregate is placed directly behind the wall. Backfill may be nominally compacted in 12 inch lifts as the wall is constructed.

Rockery walls should be setback from adjacent walls and other structures (i.e. walls, footings, pavement, etc.) such that they lie outside of the structure's zone of influence (1H:1V plane extending downward from

the outer edge of the structure to the wall backcut face). Walls should not be tiered without consulting the geotechnical engineer.

Surface water drainage should be directed away from rock walls. Subdrains shall consist of a minimum 4-inch-diameter, schedule 40 or ADS N-12 Grade, perforated plastic pipe enveloped in a minimum of 1 ft^3 per lineal foot of crushed aggregate. A minimum of one-half percent fall should be maintained throughout the drain and non-perforated pipe outlet.

Pavement Design

Tables 1 and 2 present our recommended minimum pavement section for dry-weather and cement amended subgrade, respectively. For design purposes, we used an estimated resilient modulus of 8,000 for compacted native soil and 22,000 for cement amended soil. These designs were formulated using the Crushed Base Equivalent method, a traffic index of 4.0, and are in general accordance with flexible pavement design methods prescribed by AASHTO for light-duty street with a design life of 20 years. Generally, one subgrade, one base course, and one asphalt compaction test is performed for every 100 to 200 linear feet of paving.

Table 1 - Recommended Minimum Dry-Weather Pavement Section

Material Layer	Streets (in.)	Compaction Standard
Asphaltic Concrete (AC)	3	91% of Rice Density AASHTO T-209 (base lift); 92% (top lift)
Crushed Aggregate Base ¾"-0 (leveling course)	2	95% of Modified Proctor ASTM D1557
Crushed Aggregate Base 1½"-0	10	95% of Modified Proctor ASTM D1557
Recommended Subgrade		Undisturbed Native

Table 2 - Recommended Minimum Pavement Section For Cement Amended Subgrade

Material Layer	Streets (in.)	Compaction Standard
Asphaltic Concrete (AC)	3	91% of Rice Density AASHTO T-209(base lift); 92% (top lift)
Crushed Aggregate Base ¾"-0	4	95% of Modified Proctor ASTM D1557
Cement Amended Subgrade (3% to 5% cement by volume when dry, 5% to 7% cement by volume when wet)	24	90% of Modified Proctor

Note: No construction traffic should be allowed on cement amended soils for at least four days after treatment.

Any pockets of organic debris or loose fill encountered during ripping or tilling should be removed and replaced with engineered fill (see Site Preparation Section). In order to verify subgrade strength, we recommend proof-rolling directly on subgrade with a loaded dump truck during dry weather and on top of base course in wet weather. Soft areas which pump, rut, or weave should be stabilized prior to paving. If pavement areas are to be constructed during wet-weather, the subgrade and construction plan should be reviewed by the project geotechnical engineer at the time of construction so that condition specific recommendations can be provided. Without cement amendment, wet-weather pavement construction is likely to require a base rock section of 8 additional inches over geotextile fabric for construction support and minimization of soft spot creation.

Anticipated Foundations

The subject site is suitable for shallow foundations bearing on stiff, native soil and engineered fill. Foundation design, construction, and setback requirements should conform to Chapter 4 of the Council of American

Building Officials (CABO) One and Two Family Dwelling Code. For maximization of bearing strength and protection against fronts heave, spread footing should be embedded at a minimum depth of 12 inches below exterior grade. The recommended minimum widths for continuous wall footings are presented in Table 3.

Table 3 – Recommended Minimum Widths of Continuous Spread Footings

Number of Stories	Minimum Width of Continuous Spread Footings
1-Story	12 inches
2-Story	15 inches
3-Story	18 inches

The recommended allowable soil bearing pressure is 2,000 lbs/ft^2 for footings on stiff, native soil and engineered fill. The coefficient of friction between on-site soil and poured-in-place concrete may be taken as 0.4 with no factor–of-safety added. The maximum anticipated total and differential footing movements (generally from expansion and/or settlement) are 1 inch and ¾ inch over a span of 20 feet, respectively. Excavations near foundation footings should not extend within a 1H:1V plane projected downward from the bottom edge of footings.

Footing drains are recommended around the upgradient footing perimeter, and should be connected to storm drains in the streets. Perimeter drains should consist of a minimum 3-inch diameter Schedule 40 or ADS Highway Grade, perforated plastic pipe enveloped in a minimum of 1 ft^3 per lineal foot of 2"- ½", open, graded gravel (drain rock) wrapped with geofabric (Amoco 4545, Trevia 1120, or equivalent). A minimum one-half percent fall should be maintained throughout the drain and non-perforated pipe outlet.

Seismic Design

Probabilistic assessments of the seismic shaking hazard in Oregon predict that in the next 50 years bedrock underlying the subject site has a 10% probability of experiencing a peak ground acceleration (PGA) of 0.20 g, a 5% probability of experiencing a PGA of 0.28 g, and a 2% probability of experiencing a PGA of 0.39 g. We recommend that structures at the subject site be designed for a peak bedrock acceleration of 0.3 g in accordance with the minimum design requirements of the 1997 UBC and 1998 OSSC.

Higher ground accelerations could occur at the site due to the occurrence of an earthquake larger than the design events chosen in the probabilistic analysis or due to localized amplification of seismic energy beyond the recommended coefficients. Nevertheless, the predicted values represent the average experience at sites in settings similar to the subject site; and are therefore, considered sufficient for seismic resistant design.

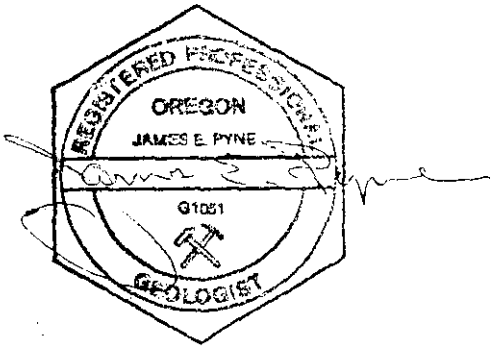
In our opinion, the potential for liquefaction or liquefaction-related ground failure at the subject site is low to moderate, and no special mitigating measures are recommended against liquefaction.

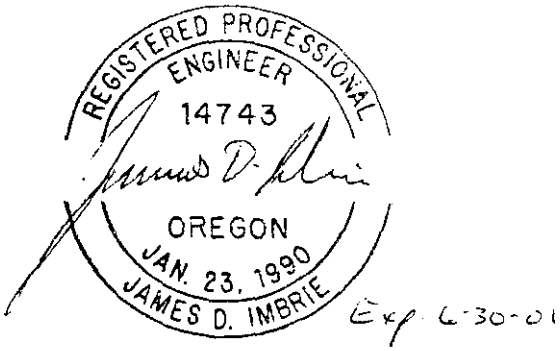
INVESTIGATION LIMITATIONS AND GENERAL NOTES

The opinions and recommendations contained within this report are not intended to be, nor should they be construed as, a warranty of subsurface conditions but are forwarded to assist in the planning and design process. If subsurface conditions vary from those encountered in our site exploration, ADaPT should be alerted to the change in conditions so that we may provide additional geotechnical recommendations, if necessary. The owner/developer is responsible for insuring that our recommendations are implemented by the project designers and contractors. Monitoring and testing by experienced geotechnical personnel should be considered an integral part of the construction process. We encourage review of this report by bidders as it relates to factual data only (i.e. test pit, boring, and laboratory data).

Sincerely,

ADaPT Engineering, Inc.





James E. Pyne, R.G.
Senior Geologist

James D. Imbrie, P.E., C.E.G.
Geotechnical Engineer

REFERENCES CITED

Atwater, B.F., 1992, Geologic evidence for earthquakes during the past 2,000 years along the Copalis River, southern coastal Washington: Journal of Geophysical Research, v. 97, p. 1901-1919.

Balsillie, J.J. and Benson, G.T., 1971, Evidence for the Portland Hills fault: The Ore Bin, Oregon Dept. of Geology and Mineral Industries, v. 33, p. 109-118.

Carver, G.A., 1992, Late Cenozoic tectonics of coastal northern California: American Association of Petroleum Geologists-SEPM Field Trip Guidebook, May, 1992.

Conforth and Geomatrix Consultants, 1992, Seismic hazard evaluation, Bull Run dam sites nears Sandy, Oregon: unpublished report to City of Portland Bureau of Water Works.

Geomatrix Consultants, 1995, Seismic Design Mapping, State of Oregon: unpublished report prepared for Oregon Department of Transportation, Personal Services Contract 11688, January 1995.

Goldfinger, C., Kulm, L.D., Yeats, R.S., Appelgate, B, MacKay, M.E., and Cochrane, G.R., 1996, Active strike-slip faulting and folding of the Cascadia Subduction-Zone plate boundary and forearc in central and northern Oregon: in Assessing earthquake hazards and reducing risk in the Pacific Northwest, v. 1: U.S. Geological Survey Professional Paper 1560, P. 223-256.

Lee, K.L. and Fitton, J.A., 1968 in Geotechnical Aspects of Earthquake Engineering, a compilation of notes prepared by T.S. Vinson and S.E. Dickenson, Dept. of Civil Engineering, Oregon State University, Corvallis, Novermber, 1992.

Mabey, M.A. and Madin, I.P., 1995, Downhole and seismic cone penetrometer shear-wave velocity measurements for the Portland metropolitan area, 1993 and 1994: Oregon Department of Geology and Mineral Industries Open-File Report 0-95-7.

Madin, I.P., 1990, Earthquake hazard geology maps of the Portland metropolitan area, Oregon: Oregon Department of Geology and Mineral Industries Open-File Report 0-90-2, scale 1:24,000, 22 p.

Peterson, C.D., Darioenzo, M.E., Burns, S.F., and Burris, W.K., 1993, Field trip guide to Cascadia paleoseismic evidence along the northern California coast: evidence of subduction zone seismicity in the central Cascadia margin: Oregon Geology, v. 55, p. 99-144.

Seed, H.B., and Idriss, I.M., 1971, Simplified procedure for evaluating soil liquefaction potential: Journal of Soil Mechanics and Foundation Division, proceedings of the American Society of Civil Engineers, v. 97, p. 1249-1273.

Seed, H.B., Idriss, I.M., and Arango, I., 1983, Evaluation of liquefaction potential using field performance data: Journal of Geotechnical Engineering, v. 109, p. 458-482.

Tokimatsu, K., Seed, H.B., and Hon M., 1987, Evaluation of settlements in sands due to earthquake shaking: Journal of Geotechnical Engineering, v. 113, p. 861-878.

Unruh, J.R., Wong, I.G., Bott, J.D., Silva, W.J., and Lettis, W.R., 1994, Seismotectonic evaluation: Scoggins Dam, Tualatin Project, Northwest Oregon: unpublished report by William Lettis and Associates and Woodward Clyde Federal Services, Oakland, CA, for U. S. Bureau of Reclamation, Denver CO (in Geomatrix Consultants, 1995).

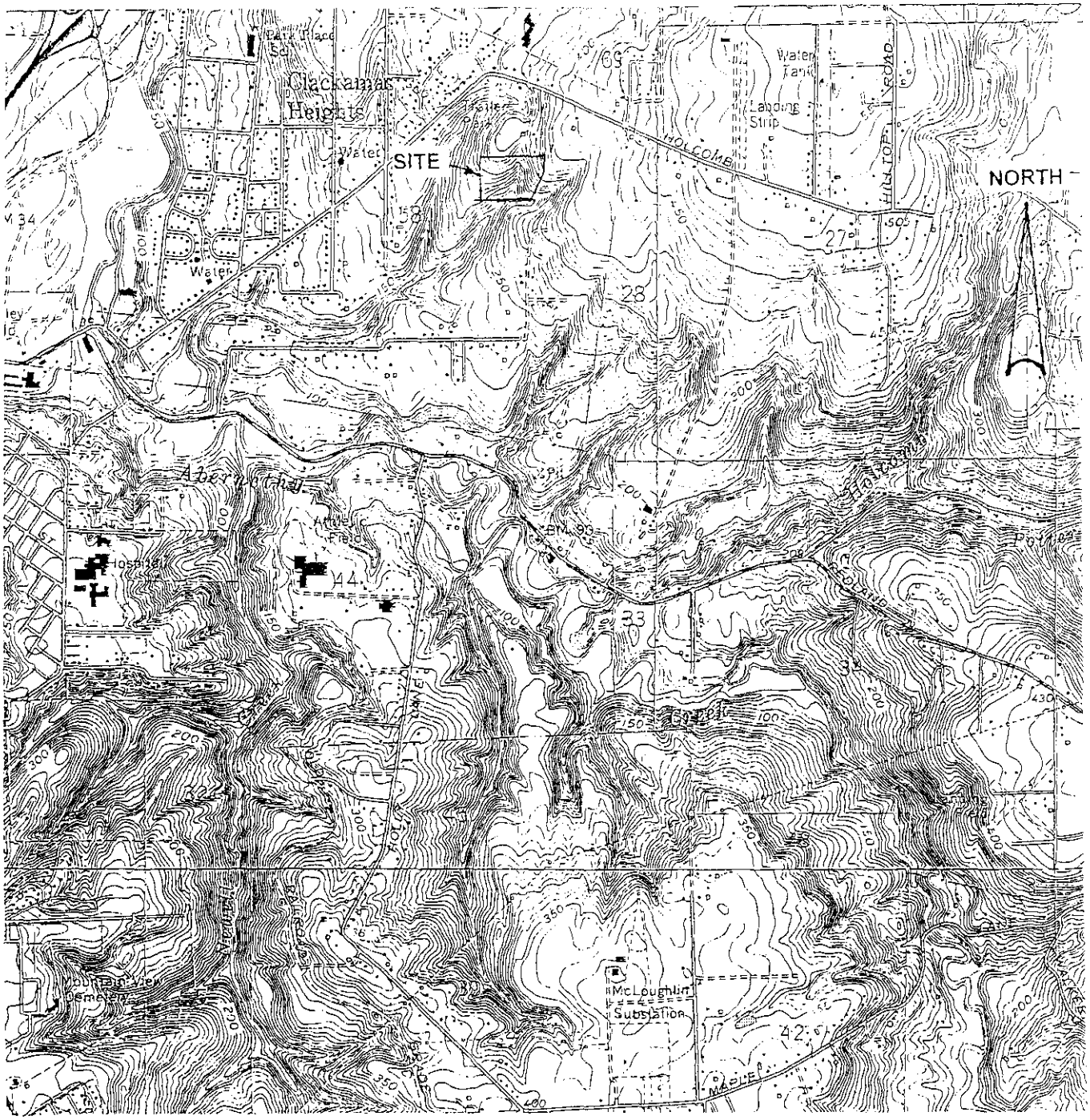
Werner, K.S., Nabelek, J., Yeats, R.S., Malone, S., 1992, The Mount Angel fault: implications of seismic-reflection data and the Woodburn, Oregon, earthquake sequence of August, 1990: Oregon Geology, v. 54, p. 112-117.

Yeats, R.S., Graven, E.P., Werner, K.S., Goldfinger, C., and Popowski, T., 1996, Tectonics of the Willamette Valley, Oregon: in Assessing earthquake hazards and reducing risk in the Pacific Northwest, v. 1: U.S. Geological Survey Professional Paper 1560, P. 183-222, 5 plates, scale 1:100,000.

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

Youd, T.L., 1973, Liquefaction, flow and associated ground failure: U.S. Geological Survey Circular 688, 12p.

Youd, T.L., and Hoose, S.N., 1978, Historic ground failures in northern California triggered by earthquakes: U. S. Geological Survey Professional Paper 993, 177p.



Portion of USGS Oregon City, Oregon
Quadrangle, 7.5 Minute Series,
Topographic, 1961, Revised 1984

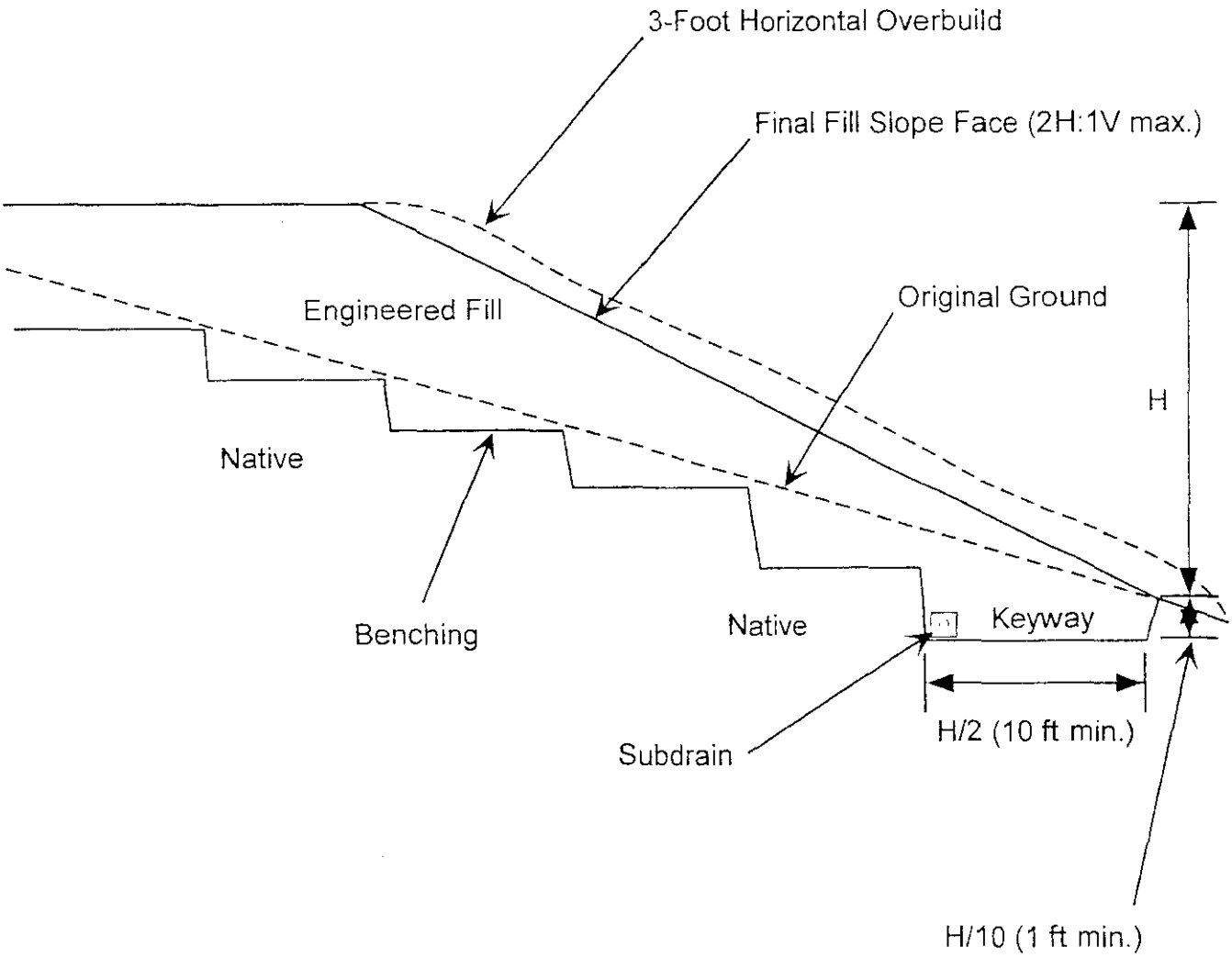
LOWELL WITTKE OAK TREE SUBDIVISION		
SITE LOCATION MAP SCALE 1" = 2000' CI = 10'		
ADaPT	JULY 2000	FIGURE 1

ADaPT Engineering, Inc.
17700 SW Upper Boones Ferry Road, Suite 100
Portland, Oregon 97224
Tel: (503) 598-8445 Fax: (503) 598-8705

FILL SLOPE DETAIL

Project: Oak Tree Subdivision Oregon City, Oregon	Job No. OR99-4192	FIGURE 3

TYPICAL KEYWAY, BENCHING & FILL SLOPE DESIGN



Date: 12/8/99

Drawn by: PAC

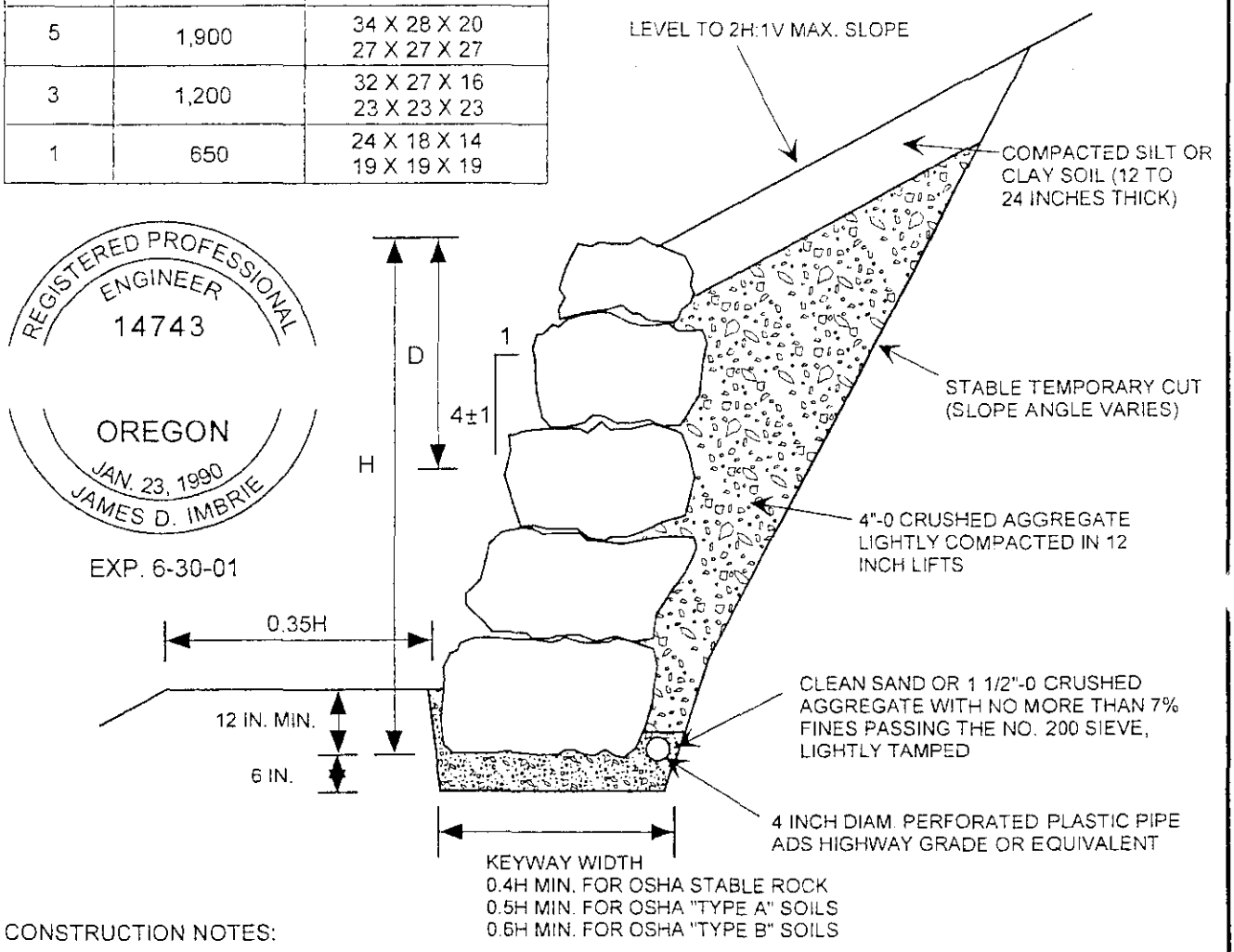
ROCKERY WALL DESIGN

MAXIMUM WALL HEIGHT (H) = 9 FEET

DRAWING NOT TO SCALE

ROCK SIZE SCHEDULE

D (FT)	MIN. WT. (LBS.)	TYPICAL SIZE (IN.)
9	3,200	40 X 34 X 24 32 X 32 X 32
7	2,400	38 X 32 X 22 29 X 29 X 29
5	1,900	34 X 28 X 20 27 X 27 X 27
3	1,200	32 X 27 X 16 23 X 23 X 23
1	650	24 X 18 X 14 19 X 19 X 19



REGISTERED PROFESSIONAL ENGINEER
14743
OREGON
JAN. 23, 1990
JAMES D. IMBRIE
EXP. 6-30-01

CONSTRUCTION NOTES:

1. For walls supporting engineered fill, the fill should be overbuilt as a temporary 1H:1V slope starting at a minimum distance of H/3 from the base of the wall. The slope should then be trimmed back such that the wall is constructed against a stable excavated face of compacted fill.

2. Keyway subgrade and embedment should be verified by ADaPT Engineering, Inc.

3. Rocks should have a cubical, tabular, or semi-rectangular shape that roughly matches the space created by the previous rock course. Rocks should be laid flat with the long dimension oriented perpendicular to the wall and extending towards the excavation face. Rocks should be staggered such that each rock bears on at least two rocks below and vertical joints are discontinuous. Rock placement and wall integrity should be checked (by builder) by lightly hammering on the top of each rock with excavator bucket.

4. Minimum rock sizes should be determined using the ROCK SIZE SCHEDULE above, where D is the distance from the base of the rock to the top of the wall. Rocks should be no smaller than 650 lbs.

5. Voids greater than 6 inches wide where there is no contact between adjacent rocks should be chinked with a small rock.

6. Backfill behind the rocks should consist of an average 12-inch-wide sheet of 4"-0 crushed aggregate with no more than 7% fines passing the U.S. Standard No. 200 sieve. Backfill should be placed in 12 inch lifts and lightly compacted to an unyielding state as each course of rocks is placed.

ADaPT Engineering, Inc.
17700 SW Upper Boones Ferry Road, Ste. 100
Portland, OR 97224

Oak Tree Subdivision
Job No. OR00-4192

FIGURE 4

APPENDIX A

FIELD EXPLORATIONS, SAMPLING, AND LABORATORY TESTING

On May 2, 2000, five exploratory test pits were excavated on the subject site to depths of between 6.0 to 10.5 feet at locations shown on Figure 2. An ADaPT Engineering Geologist evaluated and logged the test pits with regard to soil type, moisture content, relative strength, groundwater content, etc., and collected representative samples for laboratory analysis. Logs of the test pits are presented in this Appendix. The test pits were excavated with a Takeuchi trackhoe operated by Russel Construction using a 22-inch-wide bucket. All excavations were backfilled immediately after completion of logging and sampling. Minimal compaction effort was applied to the test pit backfill.

Classification, Moisture Content, and Unit Weights

Soil conditions were evaluated, described, and classified in accordance with the Unified Soil Classification System and the Oregon Department of Transportation Soil and Rock Classification Manual. No natural moisture samples were collected during field exploration but are recommended prior to the start of earthwork.

Maximum Dry Density/Optimum Moisture Content

Modified Proctor compaction test (AASHTO T-180) are recommended on a bulk samples to determine the moisture-density relationship of representative native soil. The results obtained may be compared to field dry densities for evaluating relative compaction of fill and in-place native material.

ADaPT Engineering, Inc.
17700 SW Upper Boones Ferry Road, Suite 100
Portland, Oregon 97224
Tel: (503) 598-8445 Fax: (503) 598-8705

TEST PIT LOG

Project: Wittke Subdivision Oregon City, Oregon	Job No. OR00-4192	Test Pit No. **TP-1**

Depth (ft)	Pocket Penetrometer (tons/ft²)	Sample Type	In-Situ Dry Density (lb/ft³)	Moisture Content (%)	Water Bearing Zone	Material Description
1						Mottled grey, brown, and red-brown clayey silt, very moist, soft (disturbed soil)
2						4"-diameter pvc pipe dipping about 20 degrees across test pit with inert depth about 29 inches below ground surface, no fluids in pipe.
3	2.0					
4	2.0 3.0 3.5					Reddish-brown clayey silt with numerous fragments of highly to completely weathered rock, moist, stiff (Colluvial Soil)
5						
6						
7						
8						
9						
10						Black, rust, and brown rounded fine to medium gravel in a matrix of medium to coarse sand, weathered, medium hard (Troutdale Formation)
11						Test pit completed at 10.2 feet. No groundwater encountered. No evidence of landslide activity.
12						
13						Test pit is 16.5 feet east (up hill) from survey CP#16.
14						
15						
16						
17						

LEGEND

Bag Sample

Bucket Sample


Shelby Tube Sample


Seepage


Water Bearing Zone


Water Level at Abandonment

Date Excavated: 5/2/00
Logged By: Ed Pyne
Surface Elevation: 325 ft.

ADaPT Engineering, Inc.
17700 SW Upper Boones Ferry Road, Suite 100
Portland, Oregon 97224
Tel: (503) 598-8445 Fax: (503) 598-8705

TEST PIT LOG

Project: Wittke Subdivision Oregon City, Oregon	Job No. OR00-4192	Test Pit No. **TP-2**

Depth (ft)	Pocket Penetrometer (tons/ft²)	Sample Type	In-Situ Dry Density (lb/ft³)	Moisture Content (%)	Water Bearing Zone	Material Description
1						Mottled brown and grey clayey silt, very moist, soft (disturbed soil)
2						4" black corrugated drain pipe in rounded fine to medium river gravel
3	1.0 1.5					Red-brown clayey silt with occasional basal fragment, moist, medium soft (Colluvial Soil)
4	1.75					
5	1.75					
6						
7						
8	4.0					Red-brown clayey silt, numerous inclusions of completely weathered basalt fragments, moist, stiff (Colluvial Soil)
9						Mottled brown, rust, and black coarse rounded gravel in a matrix of sandy clay with some silt (Troutdale Formation)
10						
11						Test pit completed at 10.5 feet. No groundwater encountered. No evidence of landslide activity.
12						
13						
14						
15						
16						
17						

LEGEND

Bag Sample

Bucket Sample


Shelby Tube Sample


Seepage


Water Bearing Zone


Water Level at Abandonment

Date Excavated: 5/2/00
Logged By: Ed Pyne
Surface Elevation: 312 ft.

ADaPT Engineering, Inc.
17700 SW Upper Boones Ferry Road, Suite 100
Portland, Oregon 97224
Tel: (503) 598-8445 Fax: (503) 598-8705

TEST PIT LOG

Project: Wittke Subdivision
Oregon City, Oregon

Job No. OR00-4192

Test Pit No. **TP-3**

Depth (ft)	Pocket Penetrometer (tons/ft²)	Sample Type	In-Situ Dry Density (lb/ft³)	Moisture Content (%)	Water Bearing Zone	Material Description
1	2.0					Dark brownish grey silt, trace of sand and clay, abundant roots, soft, moist (13" Topsoil) Grey-brown silt with some clay (Alluvium)
2	2.5					Light tan to mottled grey clayey silt with abundant brown completely weathered rock fragments, moist, stiff (Alluvium)
3	3.5 3.0					
4	4.0					
5						Brown and grey cobbles and coarse gravel of basalt in a stiff clayey silt matrix (Colluvial Soil)
6						
7						Weathered fine to coarse gravel within a matrix of clayey silt to silty clay, very hard (Troutdale Formation)
8						
9						Test pit completed at 7.5 feet, No groundwater encountered.
10						
11						
12						
13						
14						
15						
16						
17						

LEGEND

Bag Sample

Bucket Sample


Shelby Tube Sample


Seepage


Water Bearing Zone


Water Level at Abandonment

Date Excavated: 5/2/00
Logged By: Ed Pyne
Surface Elevation: 310 ft.

ADaPT Engineering, Inc.
17700 SW Upper Boones Ferry Road, Suite 100
Portland, Oregon 97224
Tel: (503) 598-8445 Fax: (503) 598-8705

TEST PIT LOG

Project: Wittke Subdivision
Oregon City, Oregon

Job No. OR00-4192

Test Pit No. **TP-4**

Depth (ft)	Pocket Penetrometer (tons/ft²)	Sample Type	In-Situ Dry Density (lb/ft³)	Moisture Content (%)	Water Bearing Zone	Material Description
1						Brown silt with some clay, moist, soft, abundant roots (11" Topsoil)
2						Brown clayey silt with some completely weathered basalt fragments in the lower 6 inches, moist, medium stiff (Colluvial Soil)
3						Brown fine to coarse gravel and occasional cobble in a matrix of micaceous fine sandy silt, moist, stiff, coarse fragments are weathered on outer 1/8th inch, (Troutdale Formation)
4						
5						
6						
7						Test pit completed at 6.0 ft. No groundwater encountered.
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						

LEGEND

Bag Sample

Bucket Sample


Shelby Tube Sample


Seepage


Water Bearing Zone


Water Level at Abandonment

Date Excavated: 5/2/00
Logged By: Ed Pyne
Surface Elevation: 316 ft

ADaPT Engineering, Inc.
17700 SW Upper Boones Ferry Road, Suite 100
Portland, Oregon 97224
Tel: (503) 598-8445 Fax: (503) 598-8705

TEST PIT LOG

Project: Wittke Subdivision Oregon City, Oregon	Job No. OR00-4192	Test Pit No. **TP-5**

Depth (ft)	Pocket Penetrometer (tons/ft²)	Sample Type	In-Situ Dry Density (lb/ft³)	Moisture Content (%)	Water Bearing Zone	Material Description
1	1.0					Grey silt, some organic debris, moist soft (6" Topsoil) Brown silt with some clay, most, soft (Colluvial Soil)
2	2.0					Mottled light grey and brown clayey silt, moist, medium stiff (Colluvial Soil)
3	>4.5					Brown micaceous silt, fine sandy, trace of clay, occasional weathered rock fragment below 4 ft., very stiff, moist (Troutdale Formation.
4						
5	>4.5					
6						
7						Test pit completed at 6 ft. No groundwater encountered.
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						

LEGEND

Bag Sample

Bucket Sample


Shelby Tube Sample


Seepage


Water Bearing Zone


Water Level at Abandonment

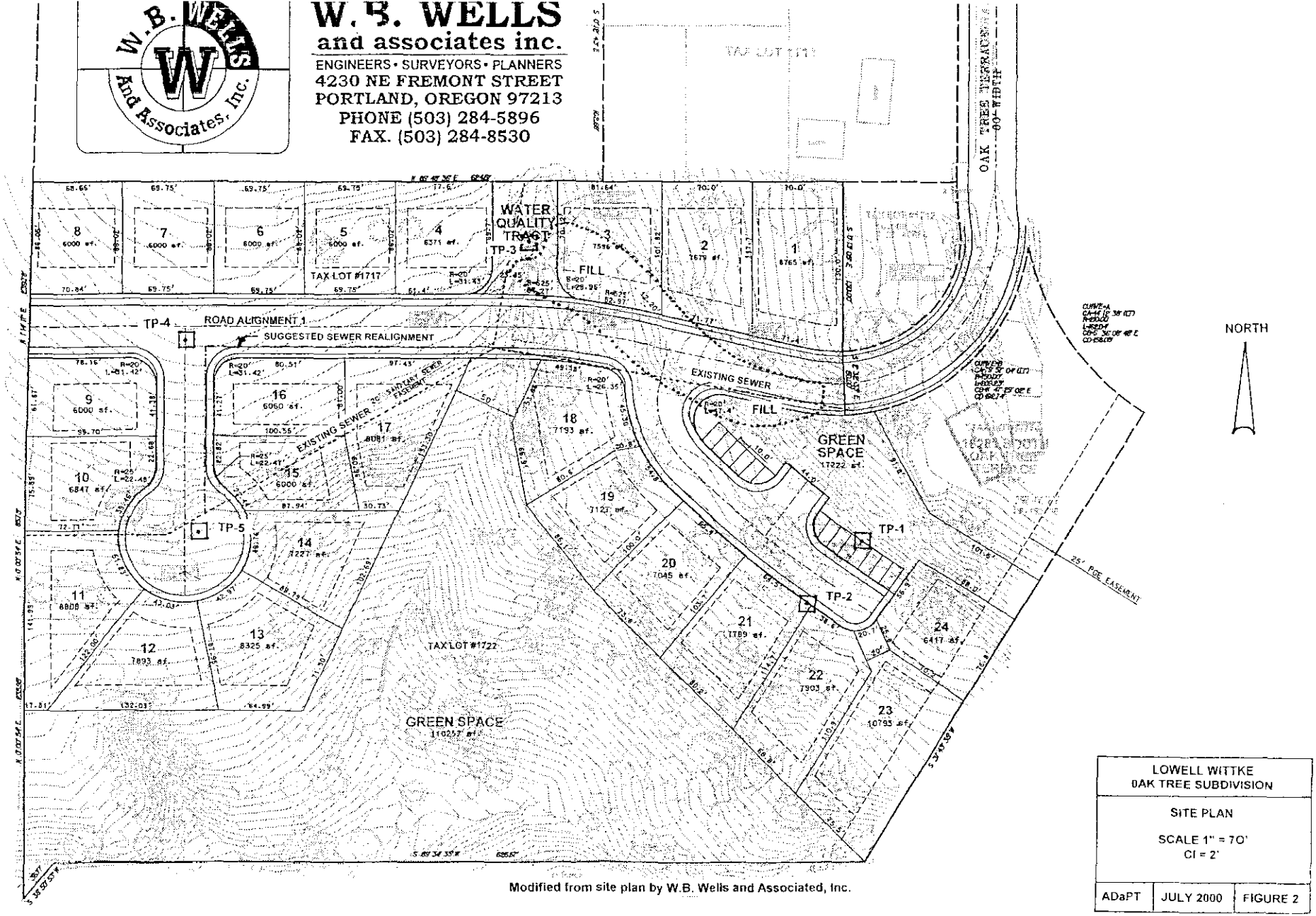
Date Excavated: 5/2/00
Logged By: Ed Pyne
Surface Elevation: 288 ft

APPENDIX B

CHECKLIST OF RECOMMENDED SOIL TESTING AND INSPECTIONS

Item No.	Procedure	Timing	By Whom	Done
1	Preconstruction meeting	Prior to beginning site work	Contractor, Developer, Civil and Geotechnical Engineers	
2	Stripping, aeration, and root-picking operations	During stripping	Soil Technician	
3	Keyway Benches	Prior to fill placement	Geologist	
4	Rockery Wall subgrade and subdrain installation	After fill placement or cutting	Engineer or Geologist	
5	Compaction testing of engineered fill (90% of Modified)	During filling, tested every 2 vertical feet per lot	Soil Technician	
6	Compaction testing of trench backfill (90% of Modified)	During backfilling, tested every 4 vertical feet for every 200 lineal feet	Soil Technician	
7	Street subgrade compaction (95 % Modified)	Prior to base course	Soil Technician	
8	Base course compaction (95% of Modified)	Prior to paving, tested every 200 lineal feet	Soil Technician	
9	AC Compaction (91% of Rice – Base lift) (92% of Rice – Top lift)	During paving, tested every 200 lineal feet	Soil Technician	
10	Final Geotechnical Engineer's certification	Completion of project	Geotechnical Engineer	

W.B. WELLS
and associates inc.
ENGINEERS • SURVEYORS • PLANNERS
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX. (503) 284-8530



Modified from site plan by W.B. Wells and Associated, Inc.

LOWELL WITTKE OAK TREE SUBDIVISION		
SITE PLAN SCALE 1" = 70' CI = 2'		
ADaPT	JULY 2000	FIGURE 2

PRELIMINARY IMPROVEMENT PLAN

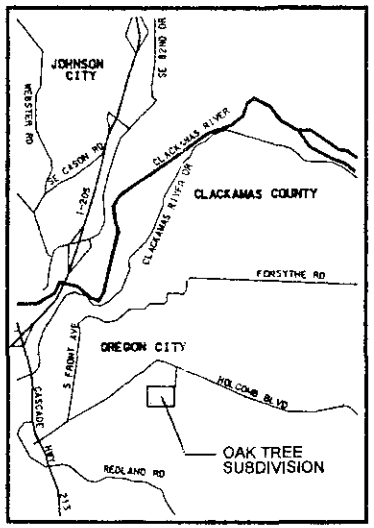
for

OAK TREE P.U.D.

located in

OREGON CITY, CLACKAMAS COUNTY, OREGON

T2S, R2E, S28, TAX LOTS 1717 & 1722



VICINITY MAP
N.T.S.

OWNER/DEVELOPER

LOWELL WITTKE
16281 S. OAK TREE TERRACE
OREGON CITY, OREGON, 97045
PHONE: 657-7841

ENGINEER

WB WELLS AND ASSOC.
4230 NE FREMONT ST
PORTLAND, OREGON 97213
PHONE:284-5896
FAX. 284-8530
CONTACT: BRAD SCHLEINING
brads@wbwells.com

SHEET INDEX

EXHIBIT 4

COVER SHEET
-
OAK TREE P.U.D.
OREGON CITY, CLACKAMAS COUNTY, STATE OF OREGON
CITY FILE # P000-01 & WR98-01

W.B. WELLS and associates inc.
ENGINEERS/SURVEYORS/PLANNERS
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX. (503) 284-8530

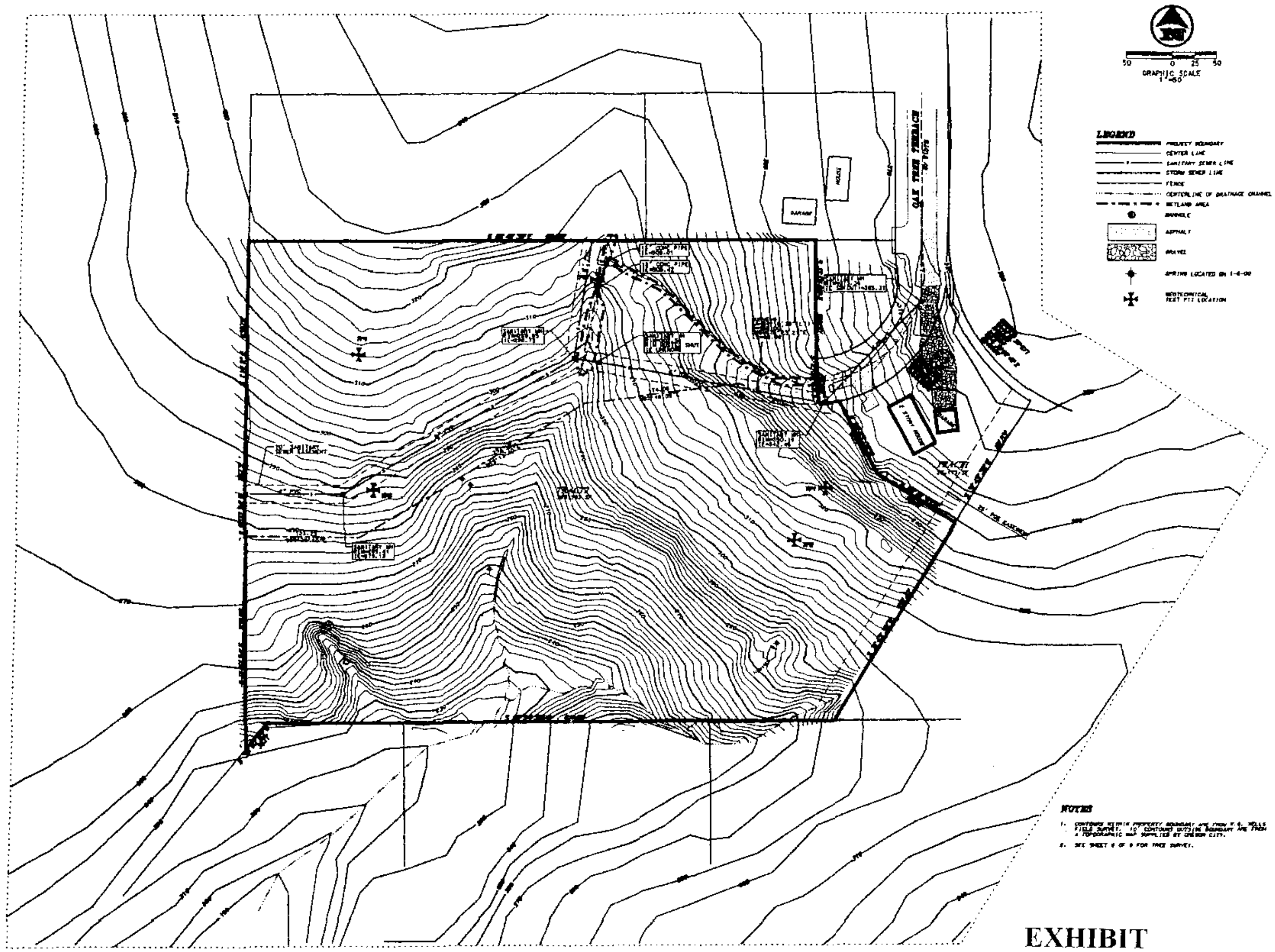


EXHIBIT ______

REVISIONS

TOPOGRAPHIC SURVEY

for

OAK TREE P.U.D.

OREGON CITY, CLACKAMAS COUNTY, STATE OF OREGON
CITY FILE # PO00-01 & WR00-01

W.B. WELLS
and associates inc.
ENGINEERS•SURVEYORS•PLANNERS
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX (503) 284-8530

2 of 8

LEGEND

- PROJECT BOUNDARY
- PHASE BOUNDARY
- TAX LOT BOUNDARY
- SETBACK BOUNDARY
- LOT LINE

NOTES

1) EXISTING PROPERTY IS ZONED R10. MODIFIED R6 STANDARDS ARE PROPOSED.

LOT SUMMARY

LOTS: 1-17 SINGLE FAMILY RESIDENCES
LOTS: 18-24 DUPLEXES
TOTAL UNITS=31

SINGLE FAMILY LOTS	= 2.8 ACRES	-	30% OF	TOTAL AREA
MULTI FAMILY LOTS	= 1.3 ACRES	-	13% OF	TOTAL AREA
OPEN SPACE	= 3.1 ACRES	-	41% OF	TOTAL AREA
PUBLIC ROW	= 1.1 ACRES	-	15% OF	TOTAL AREA
OFF STREET PARKING	= 0.1 ACRES	-	1% OF	TOTAL AREA
SUM TOTAL AREA	= 8.4 acres		100%	TOTAL AREA

R6 SETBACKS

FRONT YARD 20'
SIDE YARDS 9' & 5'
CORNER 15
REAR YARD 20'

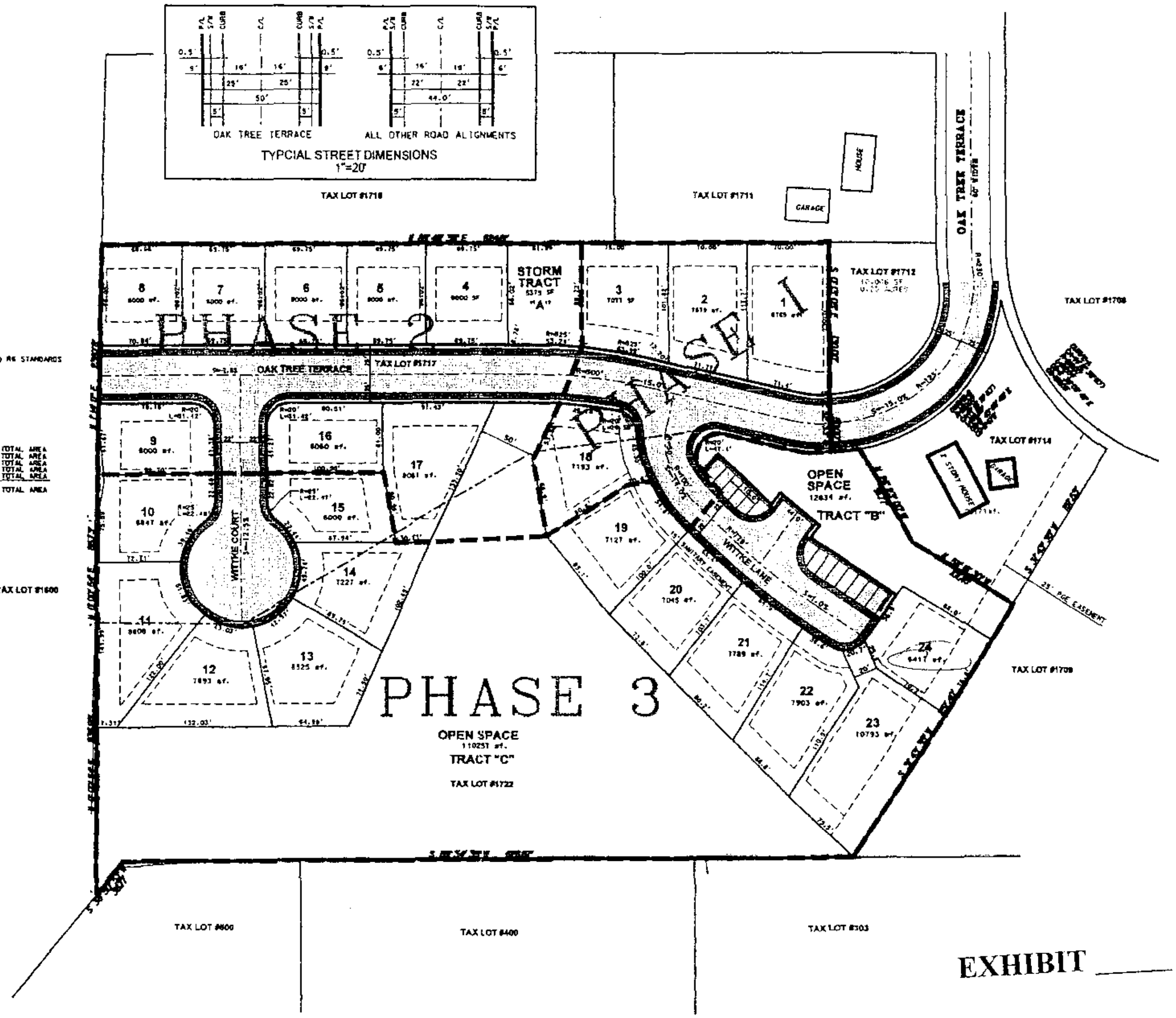
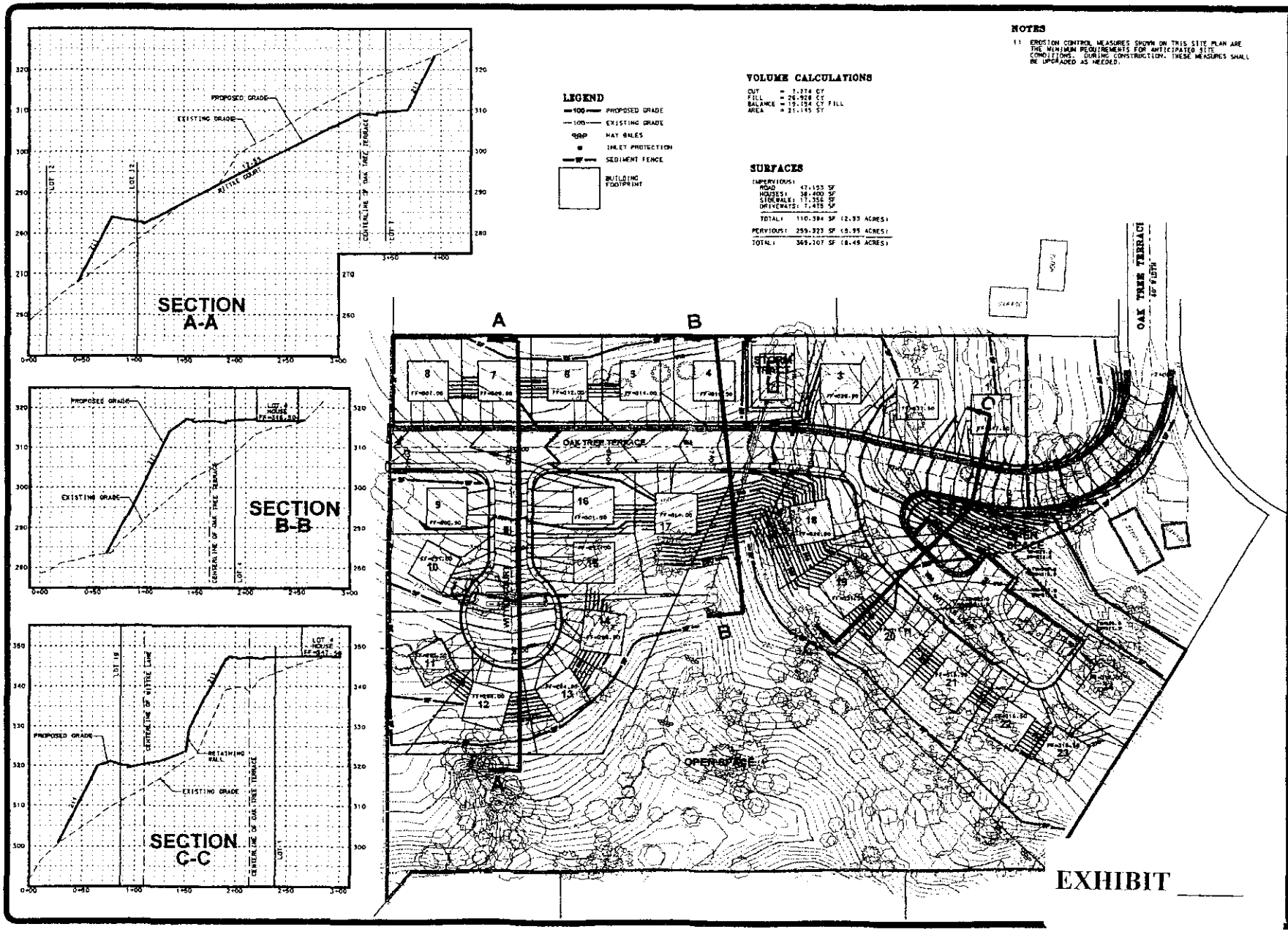


EXHIBIT ____

PRELIMINARY PLAT, CIRCULATION & PHASING PLAN
OAK TREE P.U.D.
OREGON CITY, CLACKAMAS COUNTY, STATE OF OREGON
CITY FILE #: PD00-01 & WR00-01

REVISIONS

W.B. WELLS and associates inc.
ENGINEERS•SURVEYORS•PLANNERS
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX (503) 284-8530



GRADING & EROSION CONTROL PLAN
-
OAK TREE P.U.D.
OREGON CITY, CLACKAMAS COUNTY, STATE OF OREGON
CITY FILE #: P2000-01 & WR00-01

W.B. WELLS and associates inc.
ENGINEERS & SURVEYORS & PLANNERS
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-8896
FAX (503) 284-4630

4 of 8

LEGEND

0–25% SLOPE	5.29 ACRES
25–35% SLOPE	1.66 ACRES
35%+ SLOPE	1.40 ACRES
TOTAL	8.35 ACRES

3.06

NOTE

SLOPES WERE DETERMINED BASED ON THE DEFINITION UNDER SECTION 17.44.020. SLOPE SHALL BE CALCULATED AS FOLLOWS:
1. FOR LOTS OR PARCELS INDIVIDUALLY OR CUMULATIVELY GREATER THAN TEN THOUSAND SQUARE FEET IN SIZE, BETWEEN GRADE BEARS: OBTAIN THE VERTICAL DISTANCE. DIVIDE BY THE HORIZONTAL DISTANCE AND MULTIPLY BY ONE HUNDRED. THE MINIMUM HORIZONTAL DISTANCE TO BE USED IN DETERMINING THE LOCATION OF GRADE BREAKS SHALL BE FIFTY FEET.

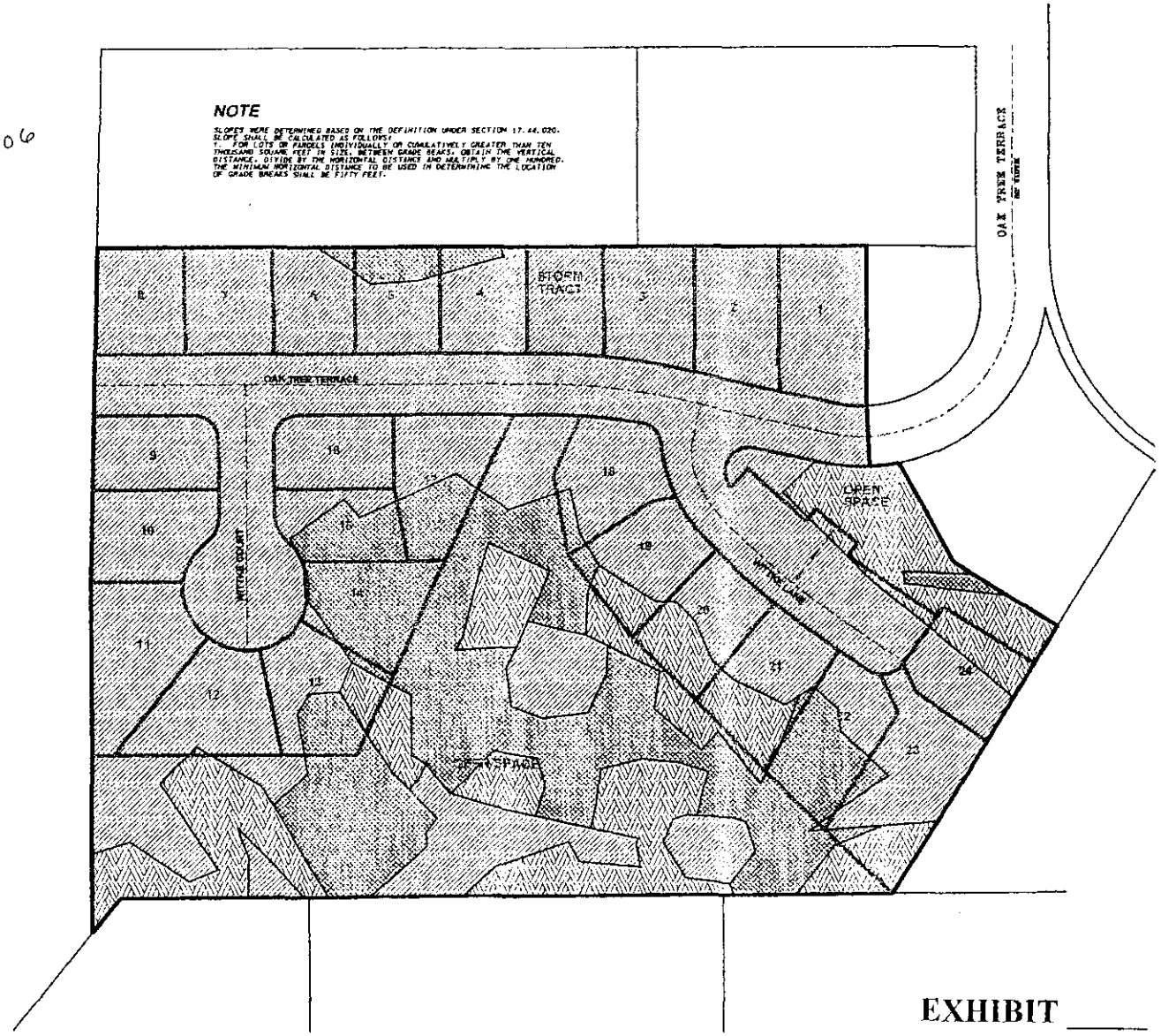


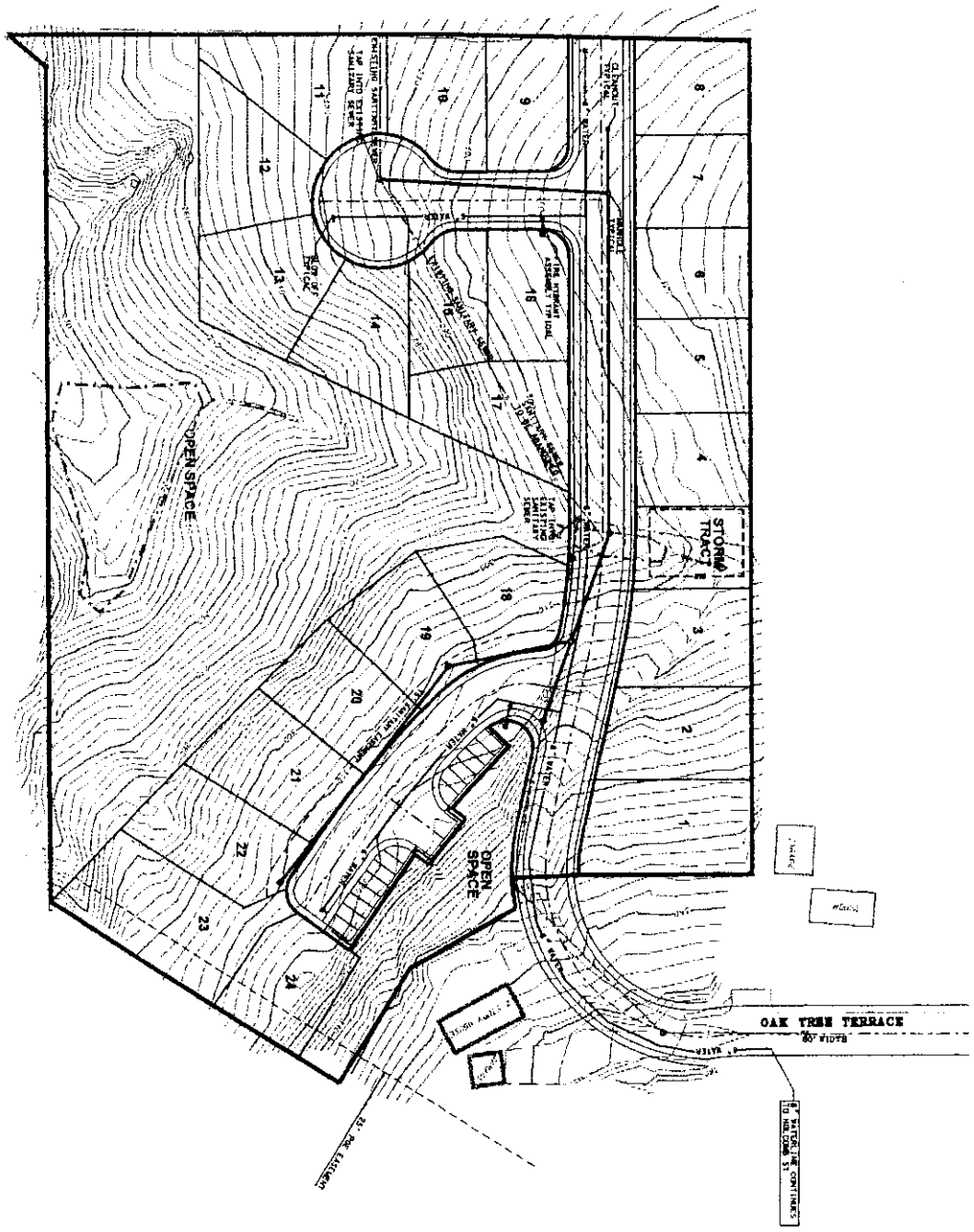
EXHIBIT ____

SLOPE ANALYSIS
-
OAK TREE P.U.D.
OREGON CITY, CLACKAMAS COUNTY, STATE OF OREGON

W.B. WELLS and associates inc.
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-8596
FAX (503) 284-8530

5 of 8

EXHIBIT ____



W.B. WELLS
and associates inc.
ENGINEERS • SURVEYORS • PLANNERS
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX. (503) 284-5830

SANITARY SEWER AND WATERLINE PLAN

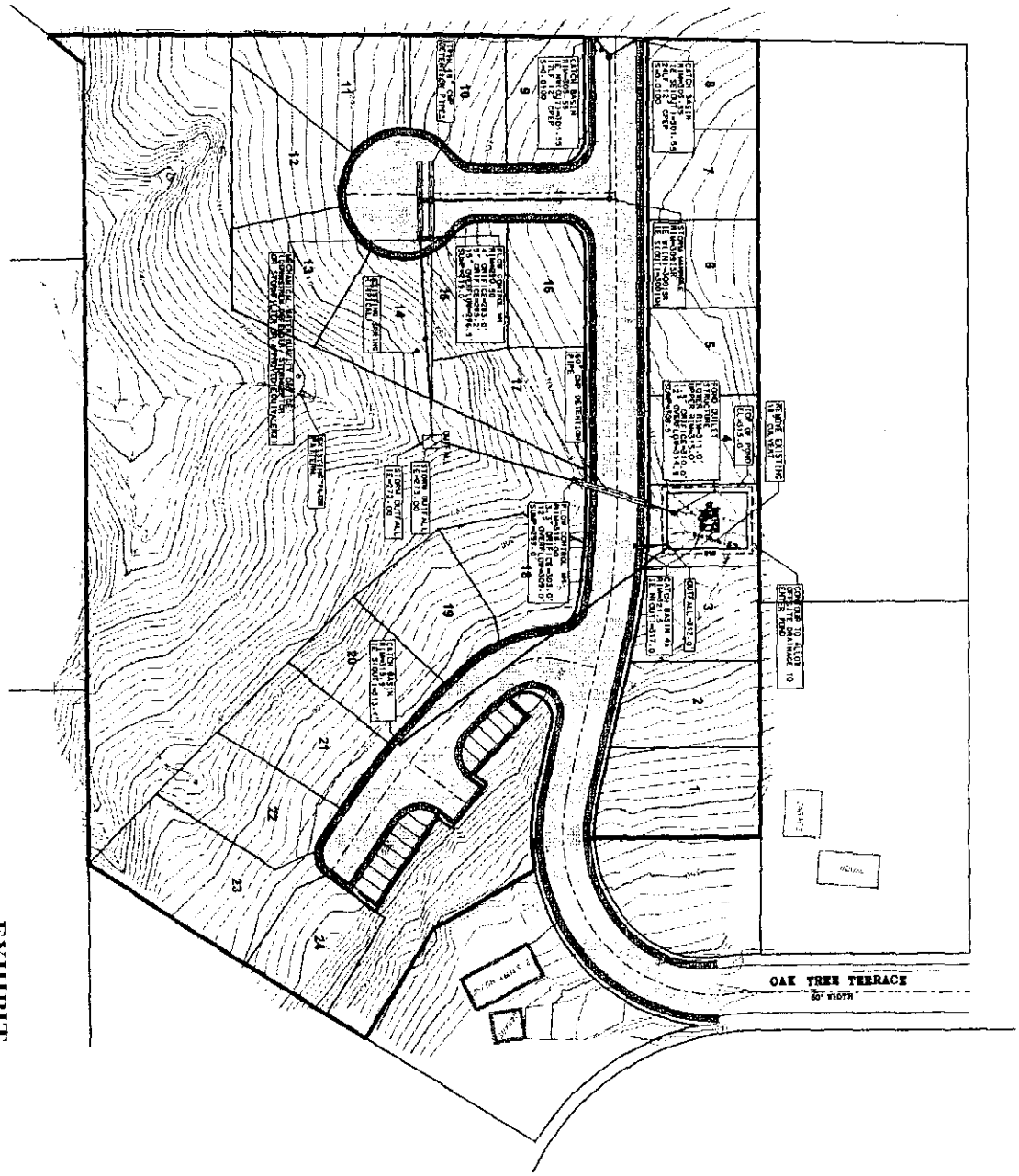
OAK TREE P.U.D.

OREGON CITY, CLACKAMAS COUNTY, STATE OF OREGON
CITY FILE #: PD00-01 & WR00-01

REVISIONS

6 of 8

EXHIBIT ____



7 of 8

W.B. WELLS
and associates inc.
ENGINEERS • SURVEYORS • PLANNERS
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX (503) 284-5530

STORM DRAINAGE PLAN

OAK TREE P.U.D.

OREGON CITY, CLACKAMAS COUNTY, STATE OF OREGON
CITY FILE #: PD00-01 & WRDD-01

REVISIONS

TREE INDEX

• DENOTES TREE TO BE REMOVED

INDEX#	SPECIES
• T2176	18" OTHER
• T2180	30" FIR
• T2192	10" OAK
• T2193	08" OAK
• T2194	12" OAK
• T2212	12" OTHER
• T2218	08" OAK
• T2219	14" OAK
• T2220	18" OAK
• T2221	20" OAK
T2222	14" OAK
T2223	14" OAK
T2237	24" OAK
T2239	16" FIR
T2241	18" FIR
T2242	14" OAK
• T2246	22" OAK
T2247	24" OAK
T2248	15" OAK
T2250	18" OAK
T2278	18" OAK
• T2285	16" OAK
• T2286	16" OAK
• T2287	20" OAK
• T2288	22" FIR
• T2289	22" OAK
• T2290	22" FIR
T2293	18" FIR
• T2300	22" OAK
• T2301	10" FIR
T2302	24" FIR
T2303	18" FIR
• T2308	08" FIR
• T2316	10" OAK
• T2317	10" FIR
• T2327	30" OAK
• T2351	12" FIR
• T2359	22" OAK
• T2362	20" OAK
• T2369	12" OAK
• T2370	16" OAK
• T2372	12" OAK
• T2373	08" OAK
• T2374	18" OAK
• T2375	10" OAK
• T2376	18" OAK
• T2377	18" OAK
• T2378	18" OAK
• T2379	06" OAK
• T2380	10" OAK
• T2381	18" OAK
• T2382	18" CEDAR
• T2384	16" OAK
• T2385	30" FIR
• T2386	24" OAK
• T2387	34" OAK
• T2388	08" FIR
• T2389	12" FIR
• T2390	24" FIR
• T2395	20" FIR
• T2396	14" OAK
• T2397	20" OAK
• T2401	12" FIR
• T2402	18" FIR
T2406	26" OAK
• T2409	14" OAK
• T2416	10" OAK
• T2417	44" FIR
• T2418	24" FIR
• T2419	26" FIR
• T2420	06" OAK
• T2421	10" OAK
T2427	24" FIR
T2432	36" FIR
• T2435	20" OAK
T2436	16" OAK
T2437	12" OAK
• T2439	36" FIR
• T2440	12" FIR
• T2442	06" OAK
• T2443	30" FIR
• T2444	18" OAK
T2446	34" FIR
• T2447	10" OAK
• T2448	10" OAK
• T2449	06" OAK
• T2450	12" OAK
• T2451	10" OAK
• T2452	06" OAK
• T2453	16" OAK
• T2454	16" OAK
• T2455	24" OAK
• T2456	16" OAK
• T2457	14" OTHER
• T2458	10" OAK
T2462	18" FIR
T2468	18" FIR
T2469	18" FIR
T2477	26" FIR
T2478	10" MAPLE
T2479	12" MAPLE
T2482	15" OAK
T2483	06" OAK
T2485	12" OAK
T2498	18" OAK
T2499	10" MAPLE
• T2500	30" FIR
T2501	12" OAK
T2502	12" OAK
T2504	18" OAK
T2505	06" OAK
T2506	06" FIR
T2507	12" OAK
T2508	10" OTHER
T2535	16" OAK
T2536	24" FIR
T2537	12" OAK
T2538	08" OAK
T2539	08" OAK
T2540	20" OAK
T2541	06" OAK
T2542	20" OAK
T2543	12" MAPLE
T2544	10" MAPLE
T2545	06" MAPLE
T2546	10" MAPLE
T2547	12" MAPLE
• T2548	10" OAK
• T2549	10" OAK
• T2551	20" MAPLE
• T2557	24" FIR
• T2558	36" OAK
• T2559	16" FIR
• T2560	14" OAK
• T2561	22" OAK
• T2567	30" OAK

INDEX#	SPECIES
• T2568	22" OAK
• T2587	24" OAK
• T2588	28" OAK
• T2601	06" OAK
T2603	08" OAK
T2604	06" OAK
T2606	12" OAK
T2609	06" OAK
T2611	08" MAPLE
T2613	06" MAPLE
T2615	16" OAK
T2617	18" OAK
T2619	14" MAPLE
T2622	10" MAPLE
T2623	10" MAPLE
T2627	16" MAPLE
T2628	20" FIR
T2631	10" MAPLE
T2632	10" MAPLE
T2634	08" ALDER
T2636	12" ALDER
T2638	08" ALDER
T2642	10" MAPLE
T2644	06" MAPLE
T2645	10" OAK
T2648	10" OAK
T2652	10" OAK
T2653	10" OAK
T2655	24" OAK
T2657	32" OAK
T2658	10" OAK
T2660	08" MAPLE
• T2661	12" MAPLE
T2662	28" OAK
T2663	10" FIR
T2664	10" MAPLE
T2667	18" MAPLE
T2670	14" MAPLE
T2672	26" FIR
T2673	14" MAPLE
T2674	18" MAPLE
T2675	24" FIR
T2676	28" FIR
T2678	16" FIR
T2680	14" FIR
T2685	10" MAPLE
T2689	24" FIR
T2694	24" FIR
T2702	10" FRUIT
T2704	08" MAPLE
T2707	10" MAPLE
T2708	10" MAPLE
T2715	24" FIR
T2720	10" OAK
T2723	12" MAPLE
T2724	12" MAPLE
T2725	14" FIR
T2728	24" FIR
T2732	12" MAPLE
T2733	12" MAPLE
T2735	10" MAPLE
T2737	14" MAPLE
T2739	12" MAPLE
T2741	06" MAPLE
T2743	06" MAPLE
T2744	08" MAPLE
T2746	08" MAPLE
T2747	14" MAPLE
T2749	08" OAK
T2751	08" MAPLE
T2752	28" FIR
T2756	08" MAPLE
T2757	18" MAPLE
T2759	10" MAPLE
T2760	28" OAK
T2761	12" MAPLE
T2762	12" OAK
T2763	08" MAPLE
T2764	24" OAK
T2765	10" MAPLE
T2766	18" MAPLE
T2767	[illegible] MAPLE
T2768	08" MAPLE
T2769	12" MAPLE
T2770	12" MAPLE
T2771	20" OAK
T2772	06" MAPLE
T2773	08" MAPLE
T2774	12" MAPLE
T2775	10" MAPLE
T2776	14" MAPLE
T2777	08" FIR
T2778	06" OAK
T2779	06" OAK
T2780	12" MAPLE
T2781	12" MAPLE
T2782	08" MAPLE
T2783	08" MAPLE
T2784	10" MAPLE
T2785	16" FIR
T2786	16" FIR
T2787	10" MAPLE
T2788	06" OAK
• T2802	[illegible] FIR
• T2808	24" OAK
• T2809	24" OAK
• T2810	24" OAK
• T2811	12" OAK
• T2812	14" OAK
• T2813	14" OAK
• T2814	18" OAK
• T2815	28" OAK
T2898	10" FIR
• T2899	10" FIR
• T2900	10" FIR
• T2901	12" FIR
• T2902	10" FIR
T2903	08" FIR
T2926	28" OAK
T2938	18" OAK
T2946	18" OAK
T2947	12" OTHER
• T2948	12" ALDER
• T2949	12" OAK
• T2950	14" OAK
T2952	06" OAK
T2955	12" OAK
• T2956	18" OAK
T2957	10" OAK
T2958	08" OAK
T2959	12" OAK
T2960	12" OAK
T2961	12" OAK
T2962	10" OAK
T2963	14" OAK
T2964	06" OAK

INDEX#	SPECIES
T2965	10" OAK
T2966	10" OAK
T2967	12" OAK
T2968	10" OAK
T2969	08" OAK
T2970	08" OAK
T2971	14" MAPLE
T2972	18" OTHER
T2974	14" FIR
T2976	12" ALDER
T2977	22" MAPLE
T2978	24" FIR
T2981	18" OAK
T2988	14" MAPLE
T2990	22" OAK
T2991	18" OAK
T2993	32" FIR
T2994	08" OAK
T2995	12" ALDER
T2997	08" ALDER
T2999	06" ALDER
T3000	12" ALDER
T3001	12" ALDER
T3003	26" MAPLE
T3006	08" ALDER
T3007	12" MAPLE
T3009	10" MAPLE
T3010	12" MAPLE
T3011	08" ALDER
T3012	08" ALDER
T3017	12" ALDER
T3018	12" ALDER
T3019	10" ALDER
T3021	14" ALDER
T3026	10" OAK
T3041	12" OAK
T3042	10" OAK
T3043	18" OAK
T3045	10" OAK
T3052	10" MAPLE
T3055	10" OAK
T3056	18" OAK
T3057	18" OAK
• T3058	14" OAK
• T3059	14" OAK
• T3060	18" OAK
• T3061	08" OAK
• T3065	20" OAK
• T3078	24" FIR
• T3079	30" FIR
T3080	22" OAK
T3083	10" OAK
• T3086	12" OAK
T3087	08" MAPLE
• T3091	24" OAK
• T3092	18" FIR
• T3094	24" ALDER
• T3095	16" ALDER
• T3096	20" FIR
• T3100	22" OAK

LANDSCAPE PLAN

SYMBOL	COMMON NAME / SCIENTIFIC NAME	SIZE	SPACING
	CRIMSON SENTRY NORWAY MAPLE / ACER PLATANOIDE	1 1/2" CAL.	30' O.C.
	DOUGLAS FIR / PSEUDOTSUGA MENZIESII	1 GALLON	AS SHOWN
	OREGON WHITE OAK / QUERCUS GARRYANA	1 GALLON	AS SHOWN
	SWORD FERN / POLYSTICHUM MUNITUM	1 GALLON	AS SHOWN
	KINNIKINNICK / ARCTOSTAPHYLLOS UAURSI	4"	3' O.C.
	SALAL / GUALTHERIA SHALLON	4"	4' O.C.

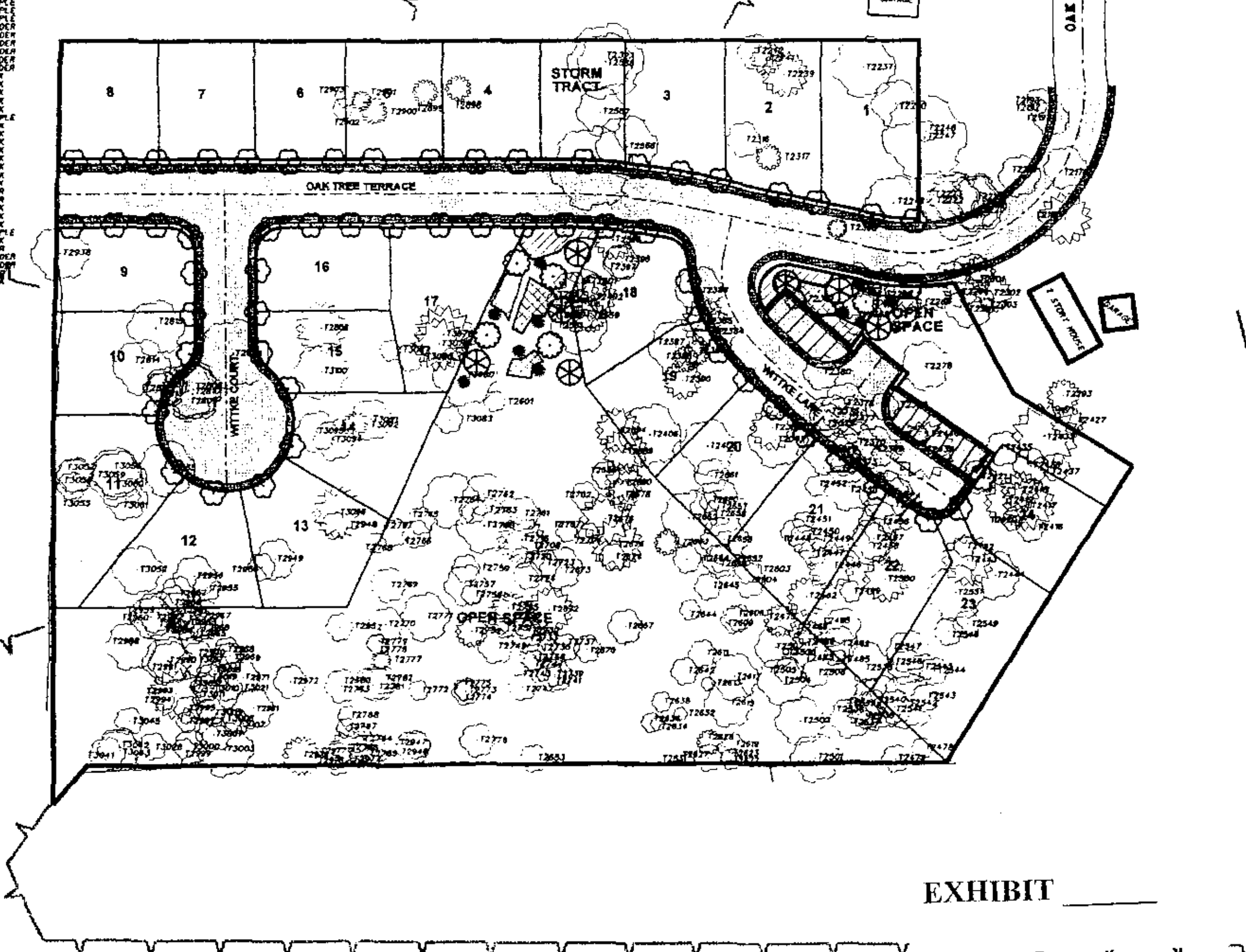


EXHIBIT ______

REVISIONS

DATE: 7-12-00
SCALE: 1" = 40'
PLOTTED: 03/15/01

TREE SURVEY & LANDSCAPE PLAN
for
OAK TREE P.U.D.
located in
OREGON CITY, CLACKAMAS COUNTY, STATE OF OREGON
CITY FILE #: PD00-01 & WR00-01

W.B. WELLS and associates inc.
ENGINEERS•SURVEYORS•PLANNERS
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX. (503) 284-8530

ANALYSIS AND FINDINGS

The applicant has proposed a Planned Unit Development consisting of 17 single-family residences and 14 duplex units for the above referenced property. The property is located on the southern end of Oak Tree Terrace in Oregon City.

Engineering staff recommends denial of the proposed Planned Unit Development.

PROVISION OF PUBLIC SERVICES:

WATER.

There is an existing 16-inch water main located in Holcomb Boulevard. There is an existing 1½-inch waterline in Oak Tree Terrace. The 1½-inch waterline runs from Holcomb Boulevard approximately half the length of Oak Tree Terrace. There is an abandoned Clackamas River Water 6-inch water main located in Oak Tree Terrace.

The applicant's narrative proposes extending the existing abandoned 6-inch CRW water main in Oak Tree Terrace to the project site, and extending stubs down the two proposed streets. This will not work.

The applicant's preliminary waterline plan indicates constructing an 8-inch water main from Holcomb Blvd. down Oak Tree Terrace to the project site, through the site to the western property line, and extending two 6-inch stubs down the two proposed streets.

Applicant did not propose looping the water system. Water system calculations were not provided with the application material. Pressure reducing valves may be required at this location.

Applicant's preliminary waterline plan proposes a water system that appears to meet City code with modifications.

SANITARY SEWER.

There is an existing 8-inch sanitary sewer running through the proposed project site. The sewer runs from the northern boundary of the project site south along the drainage swale, bends

EXHIBIT 5a

towards the west and exits the project site at about the center of the western boundary.

Applicant has proposed to realign part of the existing sanitary sewer line to match the proposed street locations.

Applicant did not indicate any sewer connections or extensions to adjacent properties.

Applicant has proposed a sanitary sewer system that appears to meet City code with modifications. Sanitary sewer needs to be designed under roadways and in locations that allow easy maintenance access.

STORM SEWER/DETENTION AND OTHER DRAINAGE FACILITIES.

The site is located in the Livesay Drainage Basin as designated in the City's Drainage Master Plan. Drainage impacts from this site are significant. The site drains to Livesay Creek. Livesay Creek drains to Abernethy Creek, which is an anadromous salmon-bearing stream.

There is an intermittent stream running through the center of the site from north to south. Two wetland areas have been delineated on the project site. One wetland is located in the northern part of the site along the intermittent stream, and one is in the southern part of the site along the intermittent stream.

Almost the entire site is located within the Water Quality Resource Area Overlay District. Under the requirements of Chapter 17.49, the applicant must delineate the wetland and stream boundaries and determine the required vegetated corridor width between the wetland and stream boundaries and the proposed development. The vegetated corridor area is to remain undisturbed.

Applicant has provided a copy of the wetland delineation report that was prepared as part of the site's application by Rita N. Mroczek, PWS in March 2000. The summary on page 5 of the report states that wetlands are present in two small areas along the unnamed headwaters tributary of Abernethy Creek. These two wetland areas are shown on the Topographic Survey submitted to the City.

A letter included in the application from Rita Mroczek to Kathleen Wadden of W.B. Wells and Associates, Inc. dated May 25,2000 states the site contains only one tiny wetland at the base of the slope at the southern property line. In the same letter, it is stated that the slope of the drainage for 150 feet is less than 25% slope, and according to Table 17.49-1 in the Oregon City ordinance the stream buffer required would be 15 feet. Applicant has proposed a 15-foot vegetated corridor along

the intermittent stream running across the site. Top of bank flow for the intermittent stream has not been indicated in the submitted material. The proposed 15-foot vegetated corridor is not indicated on the plans submitted to the City. After reviewing the plans submitted by the applicant, and scaling areas along the stream; it was determined, that in some areas, the slopes are greater than 25%. This would require a vegetated corridor width of greater than 15 feet in some areas per Code ordinance 17.49, Table 1. The wetland delineation report indicated that there are two wetland areas located on the proposed project site. Wetland vegetated corridor width was not indicated anywhere in the submitted materials.

Applicant later provided a copy of a Wetland Delineation and Water Resource Report that was prepared by Stacy N. Benjamin & C. Mirth Walker with Fishman Environmental Services, dated March 2001. This report states, "An 0.08 acre (3,570 SF) emergent wetland was delineated both north and south of the existing paved access road and in a roadside ditch north of the paved access road." This is at the northern part of the site. The report also indicates that the drainage across the site cannot be considered an intermittent stream. Applicant has proposed the undisturbed open space south of the developed area would provide a buffer area and wetlands mitigation would be done by building a berm in the southern part of the site. Plans for buffer and wetland mitigation areas were not provided to the City for review.

There appears to be conflicting information regarding existing wetland locations, the existence of an intermittent stream, and required vegetated corridor widths.

Applicant has proposed to drain the site into a detention system consisting of a pond and underground detention piping. The pond is located in the stream and in one of the identified wetland areas. Wetland mitigation plans were not included with the submitted application materials. The proposed storm drainage system doesn't indicate how drainage from structures built below roadways will be discharged into the system.

Erosion and water quality controls are critical for the development of this site. Water quality control plans and calculations have not been submitted to the City for review.

Storm drainage and water quality systems have not been designed in a manner to make best use of the existing natural features of the site. It is not clear how the pond will provide water quality in its proposed configuration. Storm drainage and water quality systems need to be designed under roadways and in locations that allow easy maintenance access.

DEDICATIONS AND EASEMENTS.

Oak Tree Terrace is classified a Local Street by the City of Oregon City, which requires a minimum right-of-way (ROW) width of 40-50 feet. Currently, Oak Tree Terrace appears to have a 60-foot ROW to the north of the project site.

Applicant has proposed a 50-foot ROW dedication for the extension of Oak Tree Terrace through the project site. Applicant didn't request any constrained ROW's in the narrative, but proposed 44-foot ROW dedications for all other interior local streets on the plans, with an extra 22 feet of width along the northern side of Wittke Lane for parking, and an extra 35 feet of width along the northern side of Wittke Lane for a fire truck turnaround.

Constrained ROW widths would be better suited to a site with such steep slopes. Also, parking is not allowed to be part of the street unless it is on street parking. Off street parking will not be allowed as part of the ROW as proposed for Wittke Lane.

STREETS.

Oak Tree Terrace is classified a Local Street by the City of Oregon City, which requires a minimum pavement width of 32 to 34 feet. Currently Oak Tree Terrace has approximately 36 feet of pavement width to the north of the project site.

Applicant has proposed a 32-foot pavement width for the extension of Oak Tree Terrace across the project site. Applicant proposed 32-foot pavement widths for all other interior local streets on the plans, with an extra 20 feet of width along the northern side of Wittke Lane for parking, and an extra 33 feet of width along the northern side of Wittke Lane for a fire truck turnaround.

The City discourages the use of private streets except where public street construction is impracticable. This is not the case for the proposed private alleys in this development.

Constrained pavement widths may be better suited to a site with such steep slopes. Parking would not be allowed along Wittke Lane as proposed.

GRADING AND EROSION CONTROL.

Preliminary grading and erosion control plans were submitted. Applicant has proposed to provide storm detention in a pond in the wetland/open space area. Grading plan shows extensive grading of the entire site. Applicant has proposed to fill along the southern edge of the site as much as 40 feet directly above a geologic hazard area.

The erosion control plan submitted is not adequate for the steep slopes on the proposed site and does not meet City standards.

TRAFFIC AND TRANSPORTATION.

Brent T. Ahrend, with Group Mackenzie prepared a Transportation Impact Analysis (TIA) for this project dated July 24, 2000. The Traffic Impact Study has been reviewed by the City and David Evans and Associates and it has been determined that the applicant's traffic impact analysis meets the City's requirements and will not have a significant short-term impact on the existing transportation system. But, the project will contribute traffic that will eventually cause the need for improvements at the intersection of Holcomb Boulevard/Abernethy Road and Redland Road and the intersection of Redland Road/Highway 213.

There are sight distance problems at the intersection of Oak Tree Terrace and Holcomb Blvd. pointed out in the TIA and addressed by David Evans and Associates and Clackamas County. Currently, there is 200 feet of sight distance from Oak Tree Terrace looking west on Holcomb Blvd., and 300 feet of sight distance from Oak Tree Terrace looking east on Holcomb Blvd. The required sight distance is 350 feet, in each direction, for Holcomb Blvd. at this location according to Clackamas County. According to the TIA, improvements in sight distance will require extensive pruning of vegetation. It is not clear whether all of the pruning can be accomplished on the road right-of-way, or whether the required sight distance can be achieved by pruning of vegetation alone.

Clackamas County has recommended denial of this application.

Sight distance issues have not been adequately addressed at the intersection of Oak Tree Terrace and Holcomb Blvd. Specific solutions to the sight distance issues should be provided to the City.

H:\WRDFILES\JAY\STAFFRPT\PD\PD00-01WR00-13.doc

DAVID EVANS AND ASSOCIATES, INC.

2828 SW Corbett Avenue
Portland, Oregon 97201
Tel: 503.223.6663
Fax: 503.223.2701

December 13, 2000

Mr. Colin Cooper
City of Oregon City
PO Box 351
Oregon City, OR 97045

SUBJECT: REVIEW OF TRAFFIC IMPACT STUDY
OAK TREE ESTATES PUD – PD 00-01 & WR 00-13
LOWELL WITTKE CONSTRUCTION

Dear Mr. Cooper:

In response to your request, David Evans and Associates, Inc. has reviewed the Traffic Impact Analysis (TIA) prepared by Brent Ahrend, PE (Group Mackenzie) for Oak Tree Estates PUD located adjacent to Oak Tree Terrace south of Holcomb Boulevard. The development analyzed by the applicant would provide for 17 single-family dwellings and 14 duplex units on a total of 24 lots.

The applicant has addressed most traffic conditions for the proposed development. The applicant analyzed the existing conditions and accounted for in-process traffic from approved developments and the site-generated traffic. I find the report uses reasonable assumptions for distribution of traffic and for trip generation. The report uses applicable methods for analyzing traffic operations.

The applicant also addressed the impact on other modes of transportation including public transit. One issue that remains a concern is the substandard configuration of Holcomb Boulevard. Holcomb Boulevard is classified as a minor arterial but is currently only two lanes wide with no provisions for pedestrians, cyclists, or public transit.

The applicant analyzed the accident data for four key intersections and found that none had a particularly high accident rate. The applicant also measured sight distance at the intersection of Oak Tree Terrace and Holcomb Road and found it to be deficient. The applicant concluded that sufficient sight distance might be provided with "extensive pruning of vegetation, possibly including tree removal." The applicant noted that it is unclear whether the offending vegetation is within the road right-of-way.

According to the TIA, the applicant analyzed traffic signal warrants for the intersection of Oak Tree Terrace and Holcomb Road and concluded that warrants would not be met with full development of the site. The applicant did not specifically address the need for a left turn refuge at this intersection. It appears, however, that volumes low enough that a turn lane is not warranted, at least if adequate sight distance can be provided.

The applicant examined four intersections for existing conditions and provided information on delay and the level of service (LOS). The applicant also calculated year 2002 traffic based on approved

EXHIBIT 5b

development (background traffic) and for the addition of site-generated traffic (combined traffic). According to the TIA, none of the four key intersections will operate with a LOS poorer than LOS D during either the AM or PM peak hours during year 2002.

For a long-range condition, the applicant analyzed year 2009 conditions. All other recent traffic impact studies performed by other consultants have analyzed a future year approximately 20 years in the future. This applicant appears to have been provided with the traffic study guidelines which specify year 2009, which was a 20-year horizon from the date at which the standards were first formulated. Fortunately information from other studies, such as that performed by Tom Lancaster, PE for the Trail View Estates (ZC 00-02), provide year 2017 operations analyses for the most important intersections: Redland/ Highway 213 and Holcomb/Redland.

According to this TIA, the 2009 analyses illustrate that two of the key intersections will fail to provide an adequate LOS during the PM peak hour at two key intersections: Redland/Highway 213 and Holcomb/Redland. Both will operate at unacceptable LOS prior to year 2009. These analyses are consistent with Lancaster's analyses for these same intersections, which concluded that they would fail to provide an adequate LOS prior to year 2017.

The site plan provided by the applicant shows a stub street connection with the parcel to the west, but none in the other directions. Other city staff will need to determine whether topographic constraints, development patterns, or other issues preclude street connections in other directions. In view of the poor LOS predicted at key intersections, additional street connections that provide alternative routes should be maximized. If street connections cannot be provided, it may be desirable for the applicant to address provisions for pedestrian connections to existing subdivisions or vacant parcels.

The proposed Oak Tree PUD is predicted to contribute relatively little traffic to the two intersections predicted to fail within the next ten years. It is not too early to begin developing plans for alternatives that will alleviate the predicted congestion problems at these locations and others in the northeast portion of the City. It may still be desirable for the city to require the Oak Tree PUD to participate in the cost of improvements to these intersections in proportion to the amount of traffic generated by all developments that would benefit.

It is also worth noting that this development will put additional demands on Holcomb Boulevard. Holcomb Boulevard should be configured such that it will accommodate all features indicated by the road's planned functional classification and the City's roadway design standards. This includes provisions for bike lanes and sidewalks. One especially troubling aspect of this development is that it will add additional side-street traffic to the intersection of Holcomb Boulevard and Oak Tree Terrace, an intersection that lacks adequate sight distance. According to the TIA, improvements in sight distance

will require extensive pruning of vegetation. It is not clear whether all of the pruning can be accomplished on the road right-of-way.

Except for the confusion about the future year for analysis, I find that the applicant's traffic impact analysis meets the City's requirements. I agree with the applicant's conclusions that the proposed development will not have a significant short-term impact on the four intersections specified in the report. Oak Tree PUD will contribute traffic that will eventually cause the need for improvements at the intersection of Holcomb Boulevard/Abernathy Road and Redland Road and the intersection of Redland Road and Highway 213.

If you have any questions or need any further information concerning this review, please call me at 503-499-0255.

Sincerely,

DAVID EVANS AND ASSOCIATES, INC.

John Replinger

John Replinger, PE
Senior Transportation Engineer

JGRE:
o:\project\o\orct0009\corresp\PD00-01.doc

00 SEP 14 AM 10:08

CITY OF OREGON CITY

RECEIVED
CITY OF OREGON CITY

COMMUNITY DEVELOPMENT DEPARTMENT, 320 WARNER MILNE ROAD,
P.O. BOX 351, OREGON CITY, OR 97045-0021, (503)-657-0891 FAX: (503)657-7892

LAND USE APPLICATION FORM

REQUEST:

Type II	Type III	Type III / IV
☐ **Partition**	☐ **Conditional Use**	☐ **Annexation**
☐ **Site Plan/Design Review**	☐ **Variance**	☐ **Plan Amendment**
☐ **Subdivision**	☒ **Planned Development**	☐ **Zone Change**
☐ **Extension**	☐ **Modification**	☐ **Zone Change w/Annex**
☐ **Modification**		

OVERLAY ZONES: ☒ Water Resources ☒ Unstable Slopes/Hillside Constraint

☒ **STANDARD PROCESS** ___ **FAST TRACK** ___ **EXPEDITED**

Please *print or type* the following information to summarize your application request:

APPLICATION # PD00-01 / WR00-13 (Please use this file # when contacting the Planning Division)

APPLICANT'S NAME: Lowell Withke Represented by WB Wells + Associates

PROPERTY OWNER (if different): Lowell Withke

PHYSICAL ADDRESS OF PROPERTY: 16281 S. OAK TREE TERRACE

DESCRIPTION: TOWNSHIP: 2S RANGE: 2E SECTION: 28 TAX LOT(S): 1712, 1714, 1717, 1722

PRESENT USE OF PROPERTY: VACANT

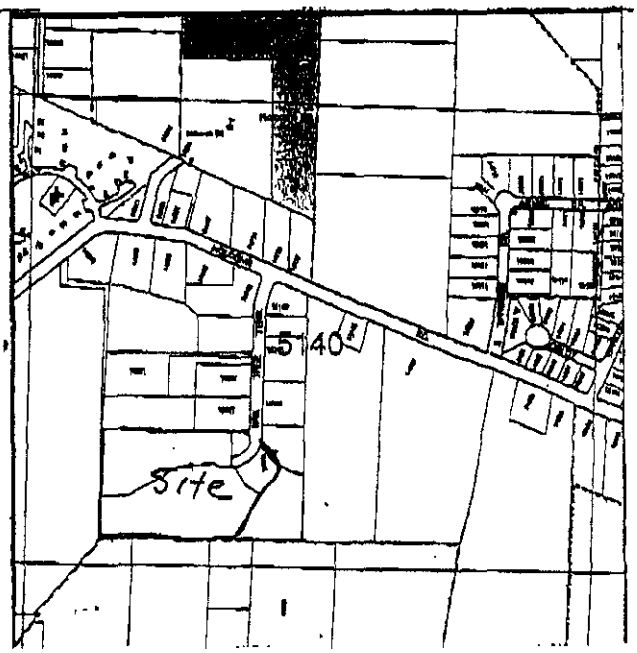
PROPOSED LAND USE OR ACTIVITY: PLANNED DEVELOPMENT

DISTANCE AND DIRECTION TO INTERSECTION:

CLOSEST INTERSECTION: Holcomb Blvd

PRESENT ZONING: R-10

TOTAL AREA OF PROPERTY:



Land Divisions

PROJECT NAME: OAK TREE Estates

NUMBER OF LOTS PROPOSED:

MINIMUM LOT SIZE PROPOSED:

MINIMUM LOT DEPTH PROPOSED:

MORTGAGEE, LIENHOLDER, VENDOR, OR SELLER: ORS CHAPTER 227 REQUIRES THAT IF YOU RECEIVE THIS NOTICE, IT MUST BE PROMPTLY FORWARDED TO PURCHASER

CITY OF OREGON CITY - PLANNING DIVISION

PO Box 3040 - 320 Warner Milne Road - Oregon City, OR 97045-0304
Phone: (503) 657-0891 Fax: (503) 657-7892

TRANSMITTAL

IN-HOUSE DISTRIBUTION

- ☑ BUILDING OFFICIAL
- ☑ ENGINEERING MANAGER
- ☑ FIRE CHIEF
- ☑ PUBLIC WORKS- OPERATIONS
- ☑ CITY ENGINEER/PUBLIC WORKS DIRECTOR
- ☑ TECHNICAL SERVICES (GIS)
- ☑ PARKS MANAGER

TRAFFIC ENGINEER

- ☑ JOHN REPLINGER @ DEA

MAIL-OUT DISTRIBUTION

- ☑ CICC
- ☑ NEIGHBORHOOD ASSOCIATION (N.A.) CHAIR
- ☐ N.A. LAND USE CHAIR
- ☑ CLACKAMAS COUNTY - Joe Merek
- ☑ CLACKAMAS COUNTY - Bill Spears
- ☐ ODOT - Sonya Kazen
- ☐ ODOT - Gary Hunt
- ☑ SCHOOL DIST 62
- ☐ TRI-MET
- ☑ METRO - Brenda Bernards
- ☐ OREGON CITY POSTMASTER
- ☐ DLCD

RETURN COMMENTS TO:

PLANNING PERMIT TECHNICIAN
Planning Department

COMMENTS DUE BY: November 14, 2000

HEARING DATE: December 11, 2000
HEARING BODY: Staff Review: ___ PC: X CC:___

IN REFERENCE TO

FILE # & TYPE:	**PD 00-01 & WR 00-13; This is a Type III Application.**
PLANNER:	Paul Espe
APPLICANT:	Lowell Wittke
REQUEST:	Planned Development
LOCATION:	16281 S. Oak Tree Terrace/ Map 2-2E-28, Tax Lot 1712, 1714, 1717, & 1722

The enclosed material has been referred to you for your information, study and official comments. Your recommendations and suggestions will be used to guide the Planning staff when reviewing this proposal. If you wish to have your comments considered and incorporated into the staff report, please return the attached copy of this form to facilitate the processing of this application and will insure prompt consideration of your recommendations. Please check the appropriate spaces below.

☒ The proposal does not conflict with our interests.

___ The proposal would not conflict our interests if the changes noted below are included.

___ The proposal conflicts with our interests for the reasons stated below.

___ ***The following items are missing and are needed for completeness and review:***

Signed John Replinger
Title SENIOR TRANSPORTATION ENGINEER

PLEASE RETURN YOUR COPY OF THE APPLICATION AND MATERIAL WITH THIS FORM.

City of Oregon City
PUBLIC WORKS

OPERATIONS DIVISION
122 S. Center Street
Oregon City, OR 97045
(503) 657-8241
Fax (503) 650-9590

PUBLIC PROJECTS DIVISION
City Engineer/Public Works Director
P.O. Box 3040
320 Warner Milne Road
Oregon City, OR 97045
(503) 657-0891
Fax (503) 657-7892

MEMORANDUM

TO:	Colin Cooper, Senior Planner
CC:	Jay Toll, P.E., Senior Engineer
FROM:	Nancy J.T. Kraushaar, P.E., City Engineer
DATE:	April 26, 2001
SUBJECT:	PD 00-01 - Oak Tree Estates

I have reviewed the portions of the application for the subject Planned Development that pertain to the Unstable Soils and Hillside Constraint Overlay District (OCMC 17.44) and the Water Quality Resource Overlay District (OCMC 17.49). My review comments are presented herein. For OCMC 17.44, I have responded to each subsection of the overlay district requirements. For OCMC 17.49, I have responded to the subsections where the proposal has failed to complete the requirement.

Chapter 17.44 Unstable Soils and Hillside Constraint Overlay District

17.44.060 Development Standards

A. The intent of this standard is to maintain natural topography, vegetation, and soils when development occurs within the overlay district.

The subject development proposal includes 7,774 cubic yards (cy) of cut and 26,928 cy of fill which yields a net fill of 19,154 cy. The proposal includes 15-foot deep fills, 50 percent (2H:1V) fill slopes, and over 20,000 square feet (sf) of fill area will cover existing slopes that exceed than 25 percent. The proposed grading and tree and ground cover removal is not confined to the maximum extent practicable to building footprints and driveways and areas required for utility easements, slope easements for road construction, and areas of geotechnical remediation.

The development proposal does not meet this standard because large areas of vegetation will be removed and large volumes of soils will be imported, thus significantly modifying the natural topography, vegetation, and soils on the site.

B. The intent of this standard is to minimize the number and size of cuts and fills.

EXHIBIT 5c

The proposal includes significant site grading with deep and massive cuts and fills with steep finished slopes. Staff estimates that less than 30 percent of the total developed area will be unaffected by site grading. Much of the grading is proposed for existing steep slopes. Deep fills are proposed for approximately twenty percent of the development area (within proposed lot lines) where existing slopes exceed 25 percent. Over 15,000 sf of cut or fill areas with steep slopes (over 50 percent or 2H:1V) are proposed for areas where existing slopes measure less than 25 percent.

This proposal does not meet this standard because many and large volumes of cuts and fills are proposed.

C. The intent of this standard is to reduce impacts of development site grading on adjacent property owners and reduce hazard potential.

Proposed grading is generally setback at least three feet plus one-fifth of the vertical height of the cut or fill and therefore meets this standard.

D. The intent of this standard is to maintain stability of known landslides and existing slopes that exceed 25 percent and reduce hazards.

The proposed grading plan does not appear to remove the toe of known landslides or slopes greater than 25 percent and therefore meets this standard.

E. The intent of this standard is to assure that where grading occurs within the overlay district, the grading is properly designed, oversight is provided during construction, and the grading is certified to be structurally sound.

The proposal does not clearly state what procedures will be used for reviewing, inspecting, and certifying structural fill placed on existing slopes that measure greater than 25 percent. The proposal does not indicate the locations of keyway and benching for fill placed on slopes greater than 20 percent, a recommendation from the geotechnical report. For these reasons, the proposal does not meet this standard.

F. The intent of this standard is to provide structural integrity of retaining walls associated with development in the overlay district and to reduce hazards. The proposal indicates that retaining walls required for the development will meet Oregon Uniform Building Code requirements and therefore meets this standard.

G. The intent of this standard is to reduce artificial grading and net increases in runoff while maintaining emergency vehicle access to the development. The proposal includes a standard 32-foot paved width for the majority of the development. The proposal does not meet this standard.

H. This standard is applicable to property unless developed as a planned development. This standard does not apply to the subject development.

I. The intent of this standard is to reduce hazards on steep slopes. The proposal indicates that portions of Lots 4, 5, 6, 13, 14, 15, and 17 through 24 contain slopes of 25 to 35 percent between grade breaks.

J. The intent of this standard is to reduce hazards on steep slopes. The proposal indicates that portions of Lots 13, 19, 20, and 21 contain slopes that measure over 35 percent between grade breaks.

K. The intent of this standard is to prevent hazardous development that impacts public property and safety. The proposal acknowledges the City's authority and discretion over geotechnical decisions regarding the development.

In response, the City will require: 1) the grading and foundation plans for each lot shall be reviewed and approved by the project geotechnical engineer; 2) the foundation excavation and cuts and fills shall be inspected and approved by the project geotechnical engineer; 3) foundation drains and drain outfalls and erosion control shall be reviewed and approved by the project geotechnical; and 3) new fill slopes greater than 35 percent shall be certified for stability by the project geotechnical engineer.

17.44.070 Access to Property

A. The intent of this standard is to minimize site disturbance and site grading, reduce runoff from new impervious surfaces, and reduce hazards.

The proposal results in 29.4 percent impervious area. The proposal includes shared driveways for the duplexes on Lots 18 through 24, an additional 3,200 sf in paved parking for the same duplexes, no other shared driveways, a 32-foot pavement width for the main access road, and a 32-foot paved width for the cul-de-sac.

The proposal does not meet the intent of this standard because additional reductions in pavement areas and innovative driveway design would result in keeping grading, land coverage, and cuts and fills to a minimum.

B. The intent of this standard is to allow alternative street design concepts to minimize site disturbance, creation of impervious area, concentrated surface runoff, and potential site hazards.

The proposal includes conventional street sections (pavement, curb and gutter, and sidewalks) with some reduced pavement widths. The stormwater from all of the pavement is concentrated at one outfall.

The 32-foot pavement width, conventional cross-sections, and concentrated stormwater outfall do not meet the intent of this standard.

C. The intent of this standard is to reduce traffic within the development and therefore reduce the demands placed on the transportation infrastructure in the development.

The proposal does not access arterials or collectors and therefore meets this standard.

D. The intent of the standard is to reduce standard pavement widths and allow alternative street design, while maintaining adequate access for emergency service.

The proposal, although not minimizing site disturbance by optimizing alternative roadway design, does provide for adequate emergency service.

17.44.080 Utilities

The intent of this standard is to minimize site disturbance, locate utilities where grading will occur as part of the roadway construction, and reduce the potential for site hazards.

The proposal includes a 305-foot long sanitary sewer line that crosses the front yards of Lots 18 through 22, outside the roadway grading area, and outside proposed cut and fill grading areas.

The proposal does not meet the intent of this standard because utilities are proposed where grading is not required for roadway construction.

17.44.090 Stormwater Drainage

The intent of this standard is to manage stormwater runoff from the site in a way that does not result in potential site hazards, does not cause erosion, and does not harm water quality.

The stormwater from the shared parking area is conveyed approximately 260 feet across a nearly flat traverse to the proposed water quality pond. This conveyance direction is contradictory to the natural drainage on the site. The proposal indicates a water quality pond which may provide detention but is not clear on its water quality function because of the proximity of the inlet and outlet. Street runoff that does not pass through this pond is proposed for treatment by a mechanical water quality device. The proposal indicates that the discharge from all of the surface water collection facilities is concentrated at one location at the top of the area designated as a geologic hazard area by the project geotechnical engineer.

The proposal does not meet the intent of this standard because the potential exists for site hazards resulting from proposed stormwater discharge and the merits of the water quality pond are not clear from the proposal.

17.44.100 Construction Standards

The intent of these standards is to minimize vegetation removal, soil disturbance, erosion potential, and disturbance of natural drainage features.

Vegetation removal and soil disturbance will occur across the majority of the development site as a result of the proposed grading plan. The proposal indicates that the drainage swale and wetland will be filled. The proposal's Erosion Control Plan shows a silt fence (silt fences control sediment transport not erosion) with no erosion control methods such as slope stabilization or planting schemes. The proposal does not show how the site will be maintained during construction.

These proposal characteristics, as well as the proposal's cut and fill and stormwater characteristics described above relative to the overlay district standards, do not meet the intent of these standards.

17.49 WR Water Resources Overlay District

17.49.050 Water Quality Resource Area Standards

G. Application Requirements

The intent of the application requirements is to define the specific contents of applications for development proposals that impact water quality resource areas. Many of the specific requirements prescribed by these standards have not been completed. The requirements for which information is lacking are presented below.

The proposal does not include a map that delineates the water quality resource areas, including the protected water feature and the vegetated corridor, prescribed by Table 17.49-1 (see 17.49.050(G)(1)).

Although the March 2001 Fishman "Wetland Delineation and Water Resources Report" provides generally descriptions of the nuisance plants found on the site, their location and abundance are not detailed (see 17.49.050(G)(4)).

The proposal does not include an assessment of the existing condition of the water quality resource area comprised of the wetland and north stream area (see 17.49.050(G)(5)).

The proposal's analysis of the proposed development impacts on the water quality resource area are not complete (see 17.49.050(G)(7)). The Fishman report describes the development, the filling of the wetlands, and installation of the water quality pond, but does not address the impacts of these actions or the impacts of the development overall on the water quality resource area comprised of the drainage swale that dominates the landscape below the proposed main access road.

The proposal does not address the impacts the proposed development will have on the water quality of the affected water resources (see 17.49.050(G)(8)). The proposal indicates that an erosion control plan will be developed for the site and that treatment will be provided for stormwater runoff. However, the proposal does not describe how these features will function or their effectiveness and what that means to downstream water resources.

The proposal does not describe alternative development plans that were considered for the site to avoid impacts on the water resource areas(see 17.49.050(G)(11)). An alternatives analysis should compare several alternatives, describe the findings of each, and show why the selected alternative has the least impact on the water resources. The proposal states that no practicable alternative exists, but does not provide evidence that other options were considered.

The proposal does not include a mitigation plan (see 17.49.050(G)(12)). The proposal refers to a conceptual mitigation plan that includes berming the lower drainages and planting native plants in the "wetland creation area". The proposal refers to additional hydrology supplied by the development's stormwater facilities and capturing the on-site springs and routing them to this area. Redirecting natural springs presents a concern about interrupting natural drainage routes and the consequences of such a proposal. The proposal indicates that the mitigation details will be presented as the project moves forward. The specific items required of a mitigation plan for development in the overlay district have not been completed.

H. Development Standards

The intent of the development standards is to assure water quality resources are protected when development occurs in the overlay district. The proposal has not fully addressed several of the standards. The proposal does not included a completed mitigation plan for the development impacts from filling the protected water features and constructing the road and stormwater pond in the vegetated corridor. The related construction plans and specifications have not been presented which are intended to include items required in the development standards. The proposal does not meet the intent of standards.

In addition to the construction details and specifications, the development standards relating to stormwater facilities have not been met (17.49.050(H)(6)). The proposal indicates that a stormwater tract or water quality pond will replace a portion of the delineated wetlands and the upper drainage swale. The development standards prescribe a maximum allowable encroachment into the outside boundary of the water quality resource area. The resulting encroachment area must be replaced by adding an equal area to the water quality resource area on the subject property. The standards also require stormwater to be treated prior to discharge into the water quality resource area. The latter requirement is addressed for stormwater reaching the lower protected water feature. However, the proposal does not meet the standard for maximum encroachments into a water quality resource area and does not offer adequate information regarding complete encroachment into the upper protected water feature.

Clackamas County

DEPARTMENT OF
TRANSPORTATION AND DEVELOPMENT

Sunnybrook Service Center

Memorandum

TO: Paul Espe, City of Oregon City Planning Division

FROM: Clackamas County Traffic Engineering RW

DATE: November 21, 2000

RE: PD 00-01 & WR 00-13

Traffic engineering staff has reviewed the traffic study provided by Group MacKenzie dated July of 2000.

It appears that there are no capacity issues related to the addition of this subdivision to the Clackamas County transportation system. All intersections are expected to operate at an acceptable level of service.

However, sight distance at the intersection of Oaktree Terrace and Holcomb Boulevard is currently inadequate. The applicant's traffic engineer measures existing sight distance at the proposed site access to be 200 feet looking to the west and 300 feet looking to the east. Table 2-9 of the *Clackamas County Roadway Standards* requires a minimum of 350 feet of sight distance in each direction. Sight distance is to be measured at approximately the midpoint of the proposed driveway and 15 feet back from the edge of the travel lane as shown in drawing D200 of our Roadway Standards. It is highly questionable whether or not the applicant can achieve this sight distance with the simple trimming of vegetation. An abrupt hill exists looking east at the intersection of Oaktree Terrace and Holcomb Boulevard. Based upon field analysis, it appears that modifications will need to be made to the roadway in order to reach adequate sight distance. Looking to the west, trimming of vegetation may result in adequate sight distance. However, much of the vegetation occurs off site, and may be difficult to maintain. The applicant and City staff should be responsible for determining ways to address continuing vegetation and sight distance concerns at this intersection.

Clackamas County Traffic Engineering staff recommends denial of this application at this time.

If this application is approved, it is recommended that a minimum of 350 feet of sight distance must be achieved and verified in each direction at the intersection of Oaktree Terrace and Holcomb Boulevard.

EXHIBIT 5f.

PD00-01

AUGUST 4, 2000

ATTENTION: SEAN COOK

RE: LACK OF EASMENT TO PROPERTY AT 16267 S OAK TREE TER. LOT #1718.

SOME HOW IN THE PAST WHEN THIS TAX LOT WAS CREATED, THEY MADE NO MEANS FOR ACCESS OR EGRESS.

TO MY UNDERSTANDING THERE IS GOING TO BE A SUBDIVISION NEXT DOOR.

WE WOULD LIKE TO REQUEST THAT SOME HOW WE COULD GAIN ACCESS TO THIS PROPERTY TAX LOT # 1718. MAYBE DURING THIS SUBDIVISION OR ANY OTHER SUBDIVISION THAT MAY BE ADJOINING THIS TAX LOT.

MY CURRENT MAIL ADDRESS IS:
DEBBIE BELL
3543 SE 136TH AVE
PORTLAND, OR 97236
503 761-9568 FAX
503 762-2940 off

THANK YOU FOR YOUR HELP.

Debbie Bell

EXHIBIT 6

Park Place Neighborhood Association
15937 S. Swan Avenue
Oregon City, OR 97045

19 April 2001

City of Oregon City
Planning Division
320 Warner Milne Road
Oregon City, OR 97945

ATTN: Planning Commission

RE: Oak Tree Estates PUD
PD 00-01 & WR 00-013

Dear Planning Commission Members:

The Park Place Neighborhood Association has received some materials related to the Oak Tree Estates PUD, including the 22 page application by Lowell Wittke Construction, a set of drawings labeled "Preliminary Improvement Plan, Oak Tree P.U.D.," and a two-page letter dated 11 January 2001 from GeoPacific Engineering, Inc. titled "Addendum to Geotechnical Investigation, Oak Tree Subdivision, Oregon City, Oregon."

The applicant, Lowell Wittke Construction, proposes to create a PUD consisting of 24 buildings, with 31 dwelling units, at what is now the end of Oak Tree Terrace, off Holcomb Blvd. in the Park Place Neighborhood of Oregon City.

The Park Place Neighborhood Association (PPNA) is concerned about many aspects of this proposal. The PPNA Land Use Committee met on this issue and presented their findings to a general PPNA membership meeting on 13 November 2000. The outcome of the vote is that the PPNA opposes the proposed Oak Tree Estates PUD, for the reasons outlined below.

Introduction

The residents of the Park Place Neighborhood feel that the Oak Tree Estates PUD is an inappropriate development for the area. It proposes a high density that exceeds the carrying capacity of the land and could potentially be the cause of slope movements and landslides. The property borders the Urban Growth Boundary, has extremely steep topographic slopes, and is presently a haven for bird and animal life among large groves of trees.

There is already a saturation of transitory housing in the neighborhood. The Clackamas County Housing Authority currently boasts 200 units between the upper and lower housing projects off Holcomb. The neighborhood feels that it has enough rental units and opposes the addition of duplexes in the area.

Lot Sizes and Building Setbacks

This property is currently zoned R-10. The PPNA is on record as opposing any smaller lot sizes in new developments near the urban growth boundary of our neighborhood in Oregon City. We recognize that the proposed PUD, with its lots averaging 7250 SF in size, plus its open space areas, will have no more dwelling units on this site than if it were fully developed with 10,000 SF lots. However, this is not a realistic alternative because much of the site has slopes that are too steep for development, even with 10,000 SF lots.

The applicant requests an adjustment to the R-6 standard for rear yard setbacks. The PPNA is opposed to any deviation to the standard for this PUD because of the steep slopes in the area.

EXHIBIT 7

The proposal would provide for two off-street, on-site, parking spaces per dwelling unit. This means that each duplex lot could potentially have four vehicles parked somewhere on the lot. It would be very difficult (and expensive) to try and park these vehicles beside the buildings because of the very steep slopes. So, on the seven duplex lots, we potentially have as many as 28 vehicles parked in front of the buildings, resulting in a very unsightly appearance to this area.

The drawing labeled "Grading & Erosion Control Plan for Oak Tree P.U.D." shows buildings where the ground surface of the new earth fill material will drop as much as 20 feet in elevation from the front of the building to the rear of the building. How will the rear of the buildings be supported? By 20 feet tall columns? How will these columns be supported? In places there would be as much as 8 feet of fill under the columns and above the present ground surface.

Traffic Concerns

The applicant states that the traffic study indicates the site can handle the additional traffic from the new development and access to Holcomb Rd. is sufficient. We feel that the traffic problem is not a question of traffic volume, but a problem of safety. There are very poor sight distances (up and down Holcomb) for vehicles exiting Oak Tree Terrace onto Holcomb. This poor sight distance coupled with the fact that many vehicles coming down Holcomb (heading west) are being driven at speeds well in excess of the posted 40 MPH speed limit, causes much concern among the neighborhood residents, who are very concerned about the potential for serious accidents at this intersection.

Steep Slopes and Potentially Unstable Soils

The area has the potential for slope movements and landslides. The addendum to the geotechnical investigation indicates that the area on this site below 260 feet in elevation should be designated a geologic hazard area. We believe that potential hazards exist well above that elevation. Beginning at about 340 feet elevation, the slopes steepen significantly as the land surface drops steeply to the stream valley below. This can be seen by looking at the USGS topographic map of this general area, which provides a broader view of the situation than can be seen on the drawings provided by the applicant.

Geologically and topographically, this area has many similarities with the southern half of the Newell Creek Canyon (near Highway 213) where significant landslides occurred during 1996 and 1997. The proposed development is located on the Troutdale Formation, which is underlain by the Sandy River Mudstone formation. This is the same geologic setting as in the Newell Creek Canyon.

In the addendum to the geotechnical investigation, it is stated that there is "no evidence of slope instability (slumps, landslides, tilted trees, springs or seeps) were observed in the developable area. This statement conflicts with the information shown on the "Topographic Survey" map, which shows two springs located right along the boundary of proposed lots 13 and 14, in an area that is indicated on the "Grading and Erosion Control Plan" as an area of fill located between the houses to be sited on lots 13 and 14.

It is likely true that the slopes in this area are reasonably stable in a natural state. But, upon development, there will be numerous houses and a considerable amount of fill adding weight to what could potentially be the upper part of slope failures (landslides). Add to this the potential for earthquake-induced slope failures, especially in the steeply sloping fill of this potentially slide-prone site, and there is the possibility of considerable damage to homes that would be located here.

In conclusion, the Park Place Neighborhood Association wishes to reiterate that it is opposed to the Oak Tree Estates PUD, for the many reasons outlined above.

Very truly yours,

Julie Puderbaugh

Julie Puderbaugh, Chair
Park Place Neighborhood Association

Ralph W. Kiefer

Ralph W. Kiefer, Chair
PPNA Land Use Committee

CITY OF OREGON CITY

PLANNING COMMISSION

320 WARNER MILNE ROAD OREGON CITY, OREGON 97045
TEL 657-0891 FAX 657-7892

TO: Planning Commission

FROM: Colin Cooper, AICP
Senior Planner

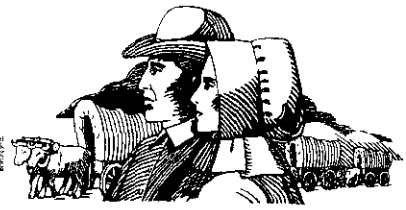
DATE: April 16, 2001

SUBJECT: CU 01-02 (Amtrak Station)

Staff requests that the Planning Commission continue the hearing for the above referenced file to August 13, 2001. The reason for this request is that the Union Pacific Rail Road is requesting additional time to review the lease document necessary in siting the station.

Staff recommend a continuance of the public hearing for the Amtrak Station (File CU 01-02 to a date certain August 13, 2001.

CITY OF OREGON CITY
PLANNING COMMISSION
320 WARNER MILNE ROAD OREGON CITY,
OREGON 97045
TEL 657-0891 FAX 657-7892



STAFF REPORT
Date: May 14, 2001

Complete: March 7, 2001
120-Day: July 5, 2001

FILE NO.: Conditional Use CU 01-01
Variance VR 01-01

HEARING DATE: April 23, 2001
7:00 p.m., City Hall
320 Warner Milne Road
Oregon City, OR 97045

APPLICANT: Oregon City School District
1417 12th Street
Oregon City, OR 97045

REQUEST: 1) Conditional use to develop a high school campus on the subject property;
2) Variance request to increase maximum height requirement for a gymnasium building from 35 feet to 56 feet and for a theater/auditorium building from 35 to 52 feet; and to reduce the minimum number of required bicycle parking spaces from 190 spaces to 20 spaces

LOCATION: Clackamas County Map 3S-2E-09D, Tax Lots 500, 600, 1000, 1001, 1200 and 1300

REVIEWER: Barbara Shields, Senior Planner
Dean Norlin, Senior Engineer

RECOMMENDATION: Staff recommends
1) Conditional Use CU 01 –01:
   - approval, with preliminary conditions (Exhibit 6);
2) Variance VR01-01 to site plan:
   - denial to reduce the minimum number of bicycle parking spaces;
   - approval to increase the minimum height of a gymnasium and a performing arts center.

CRITERIA:

Municipal Code:
Section 17.08 R-10 Single-Family Dwelling
Section 17.10 R-8 Single-Family Dwelling
Section 17.50 Administration and Procedures
Section 17.56 Conditional Uses
Section 17.37 Campus Industrial District
Section 17.60 Variances
Section 17.52 Off-Street Parking and Loading

Oregon City Comprehensive Plan:
Section B Citizen Participation
Section I Community Facilities
Section L Transportation Goals and Policies

SUMMARY OF ISSUES:

Scope of the Request:
The Oregon City School District is requesting a conditional use to develop a high school campus on the subject property (Exhibits 1, 2).

As part of the application package the school district is also requesting concurrent variances to the maximum height requirements for a gymnasium and an auditorium building and reduction of the number of required bicycle spaces to the high school campus development (Exhibits 3a and 3b).

The project involves conversion of the current Moss Campus on Beavercreek Road and the Oregon City High School on 12th Street.

The proposed high school project will include the following major phases (Exhibit 3a):

- Upgrade and remodel of the existing Moss campus. This phase will involve demolishing some portions of current buildings and remodeling the reminder of the Moss campus. The remodeled portion of the Moss campus will be used for library, offices, and supplemental athletics and teaching areas.
- Construction of new buildings. New building additions include: performing arts theater, student commons, teaching stations, science laboratories, and a new gym.

The new consolidated high school is expected to have a population of approximately 2,100 students by the year 2003 and 2,400 students by the year 2010. The total size of the facility would be approximately 332,770 square feet by the year 2003 (Exhibit 3a).

Surrounding Land Use and Transportation Pattern
The vicinity of the school site may be defined as the area west of Beavercreek Road, east of Hwy 213 and on both sides of Glen Oak Road. This area is predominantly designated "Low Density Residential", "Public/Quasi-Public", and "Industrial" on the Comprehensive Plan Map.

The currently existing land use pattern is affected by the Clackamas Community College, and a number of newly developed low density residential subdivisions, with a partially developed residential street system. Given the fact that an approximately 68 acres in this area would be converted to another institutional use to accommodate a new Oregon City High School campus, coupled with the identified Water Resource Overlay District limitations, one of the major development challenges is to balance the residential development pressure with the adequate level of transportation facilities to serve this area.

Conditional Use versus Site Plan and Design Review
In general, a scope of a conditional use review is to assure that the proposed use may be allowed in a specific location upon showing that (1) such use will not adversely impact the site conditions or the areas surrounding the subject property, i.e. is compatible with the surrounding areas; or (2) appropriate conditions of approval may be considered to mitigate the identified negative impacts of the proposed use to achieve its compatibility with the surrounding areas.

While a focus of a conditional use permit review is primarily on the use and its compatibility with the surrounding properties, the objective of the City's site plan and design review process is to assure that the actual development complies with the applicable development standards and implements the identified mitigation measures (conditions) of the proposed use.

In order to analyze the compatibility of a proposed use, an applicant must provide pertinent characteristics of the specific *operations* related to this use, to allow the City to evaluate the impacts of the utility systems (water, sewer, transportation) and the existing and planned land use pattern. Without such information, the City is not able to assess the impacts of the proposed use on these systems.

The scope of the site plan and design review is to ensure that the *structural characteristics* of the proposed use are appropriate to carry out the operations. Therefore, the failure to address the principal operations and their impacts of the proposed use on the land use and transportation systems, cannot be "corrected" through the site plan and design review process.

Summary of Analysis and Conclusion:
While the applicant indicated that the new high school campus would ultimately reach the size of approximately 332,770 square feet with 2,400 students, no information was provided with regards to the school operations.

It appears that the School District is proposing a major sports complex, including a gym seating area for 2,400 seats, and a 550-seat theater as part of the proposed high school campus. The information provided by the applicant does not address adequately the impact of these facilities on the surrounding transportation system (Exhibits 3a, 3b, 4a, 4b, and 5b).

Based on the analysis contained below, in this report, the information provided by the applicant is not sufficient to determine the traffic impacts related to the proposed high school project.

The two principal concerns are:

- the lack of information on all modes of transportation;
- the lack of sufficient information of the vehicular traffic impacts.

As a result, City staff was unable to analyze the project to assure its compatibility with the surrounding land uses and the transportation network as required by the Oregon City Municipal Code (OCMC 17.56).

Exhibit 6 contains preliminary conditions of approval. Additional information and technical analysis provided by the applicant would help the City to craft more precise conditions of approval that are fair to all parties. Based on the information provided to date, Exhibit 6 contains only the minimum physical improvements necessary for the street system.

BASIC FACTS:

1. The subject property consists of approximately of 68 acres. It is located west of Beavercreek Road and north of Glen Oak Road (Exhibit 1).

2. The proposed development of the high school project will ultimately consist of approximately 332,770 square feet school facilities and provide accommodations for approximately 2,400 students (Exhibit 3a). The high school campus would also include a 2,400-seat gym facility and a 550-seat theater.

3. The northwesterly portion of the site is within a Water Resource Overlay District. The school district filed a Water Resource application to determine the impact of the proposed addition on the identified Water Resource Overlay District (WR01-01).

4. The consolidated school site includes three zoning designations: R-8 Single Family Residential Dwelling, R-10 Single-Family Dwelling, and CI (Campus Industrial[1]). Schools are allowed as conditional uses in the R-8, R-10, and CI zones (OCMC 17.56) and subject to Chapter OCMC 17.56 requirements.

5. The northwesterly portion of the subject property borders the Clackams Community College campus area. The easterly boundary of the subject property has frontage on Beavercreek Road. The southerly boundary of the subject property has frontage on Glen Oak Road.

[1] A portion of the school site (Tax Lot 1200, Tax Map 3-2E-09D Clackamas County Map) was recently annexed to the City and is subject of the zone change request from Clackamas County FU-10 Urban Transition 10 Acre Minimum to City of Oregon City CI Campus Industrial.

6. The vicinity of the school site may be defined as the area west of Beavercreek Road, east of Hwy 213 and on both sides of Glen Oak Road. This area is predominantly designated "Low Density Residential", "Public/Quasi-Public", and "Industrial" on the Comprehensive Plan Map. The currently existing land use pattern is affected by the Clackamas Community College, and a number of newly developed low density residential subdivisions, with a partially developed local street system. Given the fact that an approximately 68 acres in this area would be converted to another institutional use to accommodate a new Oregon City High School campus, coupled with the identified Water Resource Overlay District limitations, one of the major challenges is to balance the development pressure with the adequate level of transportation facilities to serve this area.

7. Transmittals on the proposal were sent to various City departments, affected agencies, and property owners within 300 feet.

   Staff received comments from City Engineering (Exhibit 5a), City Traffic Engineer (Exhibit 5b), Oregon Department of Transportation (Exhibit 5c), and Clackamas County (Exhibit 5d).

ANALYSIS AND FINDINGS:

Analysis of Conditional Use 01-01

I. 17.56 Conditional Uses

Criterion (1): The use is listed as a conditional use in the underlying district.

The consolidated school site includes portions of properties zoned R-8, Single-Family Dwelling, R-10 Single-Family Dwelling, and Campus Industrial. Schools are allowed as conditional uses in these three districts and subject to OCMC 17.56 requirements.

Therefore, staff finds that this criterion is satisfied.

Criterion (2): The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements and natural features.

As previously discussed in this report, the site is approximately 68 acres in size and is part of the Glen Oak Road subarea, which is defined as the area west of Beavercreek Road, east of Hwy 213 and on both sides of Glen Oak Road.

This area is predominantly designated "Low Density Residential", "Public/Quasi-Public", and "Industrial" on the Comprehensive Plan Map. The currently existing land use pattern is affected by the Clackamas Community College, and a number of newly developed low density residential subdivisions, with a partially developed residential street system.

The northwesterly portion of the site is within a Water Resource Overlay District. The School District filed a Water Resource application to determine the impact of the proposed addition on the identified Water Resource Overlay District (WR01-01).

Given the fact that an approximately 68 acres in this area would be converted to another institutional use to accommodate a new Oregon City High School campus, coupled with the identified Water Resource Overlay District limitations, one of the major challenges is to balance the development pressure with the adequate level of transportation facilities to serve this area.

Based on the information provided by the applicant, is unclear what location factors were considered in selecting the subject property for the future Oregon City High School campus. The applicant indicates that *"the size is adequate for the proposal and the shape has allowed the architects to develop an exemplary site plan."*

As previously discussed in this report, the scope of the conditional use is to assure the operations associated with the proposed use are compatible with the City's surrounding land use and transportation systems. Since the applicant's response to this criterion is conclusive rather than factual, there is not sufficient information to prove that the characteristics of the site are suitable for the proposed high school project.

Based on the above analysis, staff concludes that the applicant has not provided sufficient information to prove that the proposed high school project would comply with this criterion. Therefore, in order to satisfy this criterion, the applicant must comply with conditions of approval contained in Exhibit 6.

Criterion (3): The site and proposed development are timely, considering the adequacy of transportation systems, public facilities and services existing or planned for the area affected by the use.

City Engineering Division indicated (Exhibit 5a) that the existing water and sewer services are adequate to accommodate the proposed high school use

However, as indicated by the City Traffic Engineer, the Traffic Impact Analysis submitted by the applicant is not sufficient to allow the City to fully analyze the impacts associated with the operations of the proposed high school campus (Exhibit 5b).

The two principal concerns are:

- lack of information on all modes of transportation; and
- lack of sufficient information of the vehicular traffic impacts.

Multi-modal transportation approach. The applicant has not provided adequate information about pedestrian activity, bicycling, or public transit to promote alternative modes of travel. One of the major challenges in the Glen Oak area is to balance the development pressure with an adequate level of transportation facilities to serve this area. The applicant must address pedestrian and bicycle activity between the school and the community college, nearby residential subdivisions and transit stops on nearby roadways (Exhibit 5b).

Assessment of vehicular traffic impacts. The lack of adequate traffic information does not allow staff to assess the impacts of the school operations on the transportation network. A detailed discussion of the needed information is contained in Exhibit 5a, City Traffic Engineer comments contained in Exhibit 5b, ODOT comments contained in Exhibit 5c, and Clackamas County comments contained in Exhibit 5d.

Based on the above analysis, staff concludes that the applicant has not provided sufficient information to prove that the proposed high school project would comply with this criterion. Therefore, in order to satisfy this criterion, the applicant must comply with conditions of approval contained in Exhibit 6.

Criterion (4): The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs or precludes the use of surrounding properties for the primary uses listed in the underlying district.

The proposed development of the high school project will ultimately consist of approximately 332,770 square feet school facilities and provide accommodations for approximately 2,400 students (Exhibits 3a and 3b). The high school campus would also include a 2,400-seat gym facility and a 550-seat theater.

One of the major challenges is to balance the development pressure with the adequate level of transportation facilities to serve this area. The scale of the proposed high school project would have a significant impact on the land use pattern and street network in the surrounding areas and limit the use of the surrounding properties listed in the underlying residential and industrial districts.

The intersections of Highway 213 and Glen Oak Road and Beavercreek Road are currently failing. With the school in operation, there is an immediate need to install a signal at the intersection of Glen Oak and Highway 213, realign Glen Oak and Caufield Roads, extend the existing left-turn lane on Highway 213 and add a right-turn lane on Glen Oak. While a Traffic Impact Analysis submitted by the applicant identifies these needs, it is not clear how the needed traffic improvements would be implemented to mitigate the school related impacts.

An additional analysis related to the traffic impacts needs to be provided by the applicant, as identified by the City Traffic Impact Analysis, for the City to assess the transportation impacts related to the high school project.

Based on the above analysis, staff concludes that the applicant has not provided sufficient information to prove that the proposed high school project would comply with the Transportation Goal of the Comprehensive Plan. Therefore, in order to satisfy this criterion, the applicant must comply with conditions of approval contained in Exhibit 6.

Criterion (5): The proposal satisfies the goals and policies of the city comprehensive plan, which apply to the proposed use.

The Oregon City Comprehensive Plan contains the following applicable goals and policies:

"Encourage citizen participation in all functions of government and land-use planning." (Citizen Involvement Goals and Policies, Policy 4).

The public hearing was advertised and noticed as prescribed by law to be heard by the Planning Commission on May 14, 2001. The public hearing will provide an opportunity for comment and testimony from interested parties.

"Oregon City will coordinate with the Oregon City School District to encourage that school sites are located within the Urban Boundary and subdivision proposals are reviewed for impact on the school system..." (Community Facilities Goals and Policies, Health and Education, Policy 2).

The proposed extension involves an existing school that is already located within the Urban Growth Boundary.

"Improve the system for movement of people and products in accordance with land use planning, energy conservation, neighborhood groups and appropriate public and private agencies..." (Transportation Goal)

As previously discussed in this report, the applicant needs to provide additional information to assure that the appropriate transportation improvements are in accordance with the planned land use pattern in the surrounding areas.

Based on the above analysis, staff concludes that the applicant has not provided sufficient information to prove that the proposed high school project would comply with this criterion. Therefore, in order to satisfy this criterion, the applicant must comply with conditions of approval contained in Exhibit 6.

In addition to the standards listed in Section 17.56.010, which are to be considered in the approval of all conditional uses and the standards of the zone in which the conditional use is located, the following additional standards for schools shall be applicable (17.56.040.F.):

The site must be located to best serve the intended area, must be in conformance with the City plan, must have adequate access, must be in accordance with appropriate State standards, and must meet the following dimensional standards:

1. Minimum lot area, twenty thousand square feet;
2. Front yard setback, twenty-five feet;
3. Rear yard setback, twenty feet;
4. Side yard setback, twenty feet.

The submitted site plan indicated indicates (Exhibit 2) that the required setbacks are met.

Based on the above analysis, staff finds that the applicant can satisfy this standard (OCMC 17.56.040.F).

Analysis of Variance VR 01-01

As part of this application package, the applicant is asking for the following variances to the high school campus project:

- Variance to increase the maximum height requirement for a gymnasium building from 35 feet to 56 feet;
- Variance to increase the maximum height requirement and for a theater/auditorium building
- from 35 to 52 feet; and
- Variance to reduce the minimum number of required bicycle parking spaces from 190 spaces to 20 spaces.

The requested variances to the gym and performing theatre heights and bicycle parking standards are parameters of the site plan and design application review and need to be analyzed within the context of the specific site plan for the high school campus area. Under the Code, while the site plan and design review process is typically reviewed as an administrative, Type II decision, a variance, with the exception of "small variances" as defined in Section 17.60.030(E), from the design standards must be reviewed by the Planning Commission. The applicant chose to file a variance request concurrently with the conditional use application to prior to the site plan and design review in order to streamline the review process.

Variance to Increase the Maximum Height of the Performing Arts Theater and Gymnasium:

Section 17.60.020 *Variances—Grounds* states that a variance may be granted if the applicant meets six approval criteria:

A. That the literal application of the provisions of this title would deprive the applicant of rights commonly enjoyed by other properties in the surrounding area under the provisions of this title; or extraordinary circumstances apply to the property which do not apply to other properties in the surrounding area, but are unique to the applicant's site;

The applicant indicates (Exhibit 3b) that the additional height for the performing arts center is needed to construct a structure that would be suitable for use as a theatre building. Specifically, the higher ceiling height is necessary to accommodate theatrical lighting, traditional proscenium opening, acoustic baffles and appropriate sight lines.

For the gymnasium area, the increased height is necessary to assure the proper climate control and air circulation.

In summary, the literal application of the height requirements would impact the intended functions of the two proposed buildings. The specific requirements related to the functions of the both buildings are sufficient to justify this criterion.

B. That the variance from the requirements is not likely to cause substantial damage to adjacent properties, by reducing light, air, safe access or other desirable or necessary qualities otherwise protected by this title;

The location of the gym and the performing arts center (more than 160 feet from the southerly property line and over 130 feet from Beavercreek Road) is not likely to cause any negative impacts to the surrounding areas.

Based on the submitted site plan (Exhibits 2 and 3b), the requested variance is not likely to cause any substantial damage to the surrounding properties. Therefore, the requested variance satisfies this criterion.

C. **The applicant's circumstances are not self-imposed or merely constitute a monetary hardship or inconvenience. A self-imposed difficulty will be found if the applicant knew or should have known of the restriction at the time the site was purchased;**

The applicant indicates that the requested variances to the height requirements are necessary to accommodate the features that relate to the unique design characteristics of the high school campus.

Based on the information provided by the applicant, it appears that the requested variances would allow the applicant to incorporate the design features to the high school campus project and do not constitute a monetary hardship or inconvenience. Therefore, the requested variance satisfies this criterion.

D. **No practical alternatives have been identified which would accomplish the same purposes and not require a variance;**

The requested variances are necessary to protect the integrity of the design concept for the high school campus project. Both performing arts building and the gym are typically distinctive elements of high school campus areas.

Based on the information provided by the applicant, no practical design alternatives were found by the applicant that would accommodate the school operations. Therefore, the applicant satisfies this criterion.

E. That the variance requested is the minimum variance which would alleviate the hardship;

The objective of the requested variances is to accommodate the unique design of the high school campus features. The requested height variances are the minimum variances, which would allow the applicant to complete the design.

Based on the information provided by the applicant, the minimum variance to the height limitations was requested to develop the high school project.

F. That the variance conforms to the comprehensive plan and the intent of the ordinance being varied.

Schools are allowed as conditional uses in all three zoning districts (R-8, R-10, and CI), which are identified within the consolidated high school site. The site is located within the Urban Growth Boundary area. The requested variances would allow the applicant to develop the high school campus, as intended by the City Code and the Comprehensive Plan.

Based on the information provided by the applicant, the requested variance is necessary to assure an integrated high school design project, as provided in the City Code and the Comprehensive Plan. Therefore, the applicant satisfies this criterion.

Variance to reduce the minimum number of required bicycle parking spaces:

Under the City Code, OCMC 17.52.060, 190 bicycle parking spaces (1 parking space per classroom) must be provided on the high school campus. The applicant is requesting a variance to reduce the required minimum of 190 bicycle parking spaces to 20 spaces.

As discussed above, the requested variance must meet the following criteria contained in Section 17.60.020 *Variances—Grounds* of the City Code:

A. That the literal application of the provisions of this title would deprive the applicant of rights commonly enjoyed by other properties in the surrounding area under the provisions of this title; or extraordinary circumstances apply to the property which do not apply to other properties in the surrounding area, but are unique to the applicant's site;

The applicant indicates (Exhibit 3b) "the proposal is a unique use in the zone so is not comparable except to other such uses."

The response provided by the applicant is conclusive rather than factual.

As discussed previously in this report, the major deficiency of the applicant's applications is the applicant's failure to incorporate an analysis of all modes of transportation, including pedestrian and bicycle improvements. It is inadequate to state that such uses are minimal. Definitive plans are needed to show how such would be encouraged. The request to reduce the minimum number of required bicycle parking spaces in contrary to the Transportation Goal, which requires the City to *"improve the system for movement of people and products in accordance with land use planning and energy conservation..."* The requested variance would substantially reduce the City's efforts to promote and implement a multi-modal transportation system.

Given the inadequate level of the existing transportation system in the vicinity of the school site, in order to help reduce the vehicle transportation impacts of the school, a transportation demand management plan may be needed. This might have the effect of reducing mitigation measures such as the construction of turn lanes or lengthening of queue storage at

intersections. As a result, any reduction in the bicycle parking areas would directly impact the effectiveness of a transportation demand management plan.

Based on the above analysis, the applicant failed to satisfy this criterion.

B. **That the variance from the requirements is not likely to cause substantial damage to adjacent properties, by reducing light, air, safe access or other desirable or necessary qualities otherwise protected by this title;**

The subject property is part of the Glen Oak subarea. One of the major development challenges in this area is to balance the development pressure with an adequate level of transportation facilities to serve this area. The requested variance would reduce the City's efforts to promote and implement a multi-modal transportation system, which also serves the surrounding properties.

No factual information was provided by the applicant in response to this criterion. Based on the above analysis, granting the variance would negatively impact the effectiveness of the City's efforts to implement a multi-modal transportation system to the demand and transportation capacity of the transportation system.

The requested variance would substantially reduce the City's efforts to promote and implement a multi-modal transportation system.

Based on the above analysis, the applicant failed to satisfy this criterion.

C. **The applicant's circumstances are not self-imposed or merely constitute a monetary hardship or inconvenience. A self-imposed difficulty will be found if the applicant knew or should have known of the restriction at the time the site was purchased**;

The applicant did not indicate what special circumstances related to the proposed high school project would apply to this variance and would justify the requested reduction in the minimum bicycle parking spaces.

The requested variance would substantially reduce the City's efforts to promote and implement multi-modal transportation system.

Based on the above analysis, the applicant failed to satisfy this criterion.

D. **No practical alternatives have been identified which would accomplish the same purposes and not require a variance**;

The objective of the bicycle parking requirement standards is to assure the City's transportation system would accommodate a varicty of modes of transportation. The applicant did not explain how the requested variance would fulfill the City's obligation to implement a multi-modal transportation system.

Based on the above analysis, the applicant failed to satisfy this criterion.

E. That the variance requested is the minimum variance which would alleviate the hardship;

The applicant did not specify (1) what hardship the required minimum bicycle parking standard constitutes in developing the high school site; and (2) how the requested variance would alleviate this hardship.

Based on the above analysis, the applicant failed to satisfy this criterion.

F. That the variance conforms to the comprehensive plan and the intent of the ordinance being varied.

Schools are allowed as conditional uses in all three zoning districts (R-8, R-10, and CI), which are identified within the consolidated high school site and are subject to the multi-modal transportation requirements of the City's transportation system. The applicant did not explain how the requested variance satisfies the multi-modality requirement.

Based on the above analysis, the applicant failed to satisfy this criterion.

CONCLUSION AND RECOMMENDATION:

Based on the analysis and findings presented in the report, staff concludes the following:

A. Conditional Use 01-01

The applicant did not provide sufficient information to satisfy criteria 2, 3, 4, and 5 of the requested Conditional Use 01-01 to develop a high school campus on the property identified as Clackamas County Map 3S-2E-9D, Tax Lots 500, 600, 1000, 1001, 1200, and 1300.

Based on the analysis contained below, in this report, the information provided by the applicant is not sufficient to determine the traffic impacts related to the proposed high school project.

The two principal concerns are:

- the lack of information on all modes of transportation;
- the lack of sufficient information of the vehicular traffic impacts.

As a result, City staff was unable to analyze the project to assure its compatibility with the surrounding land uses and the transportation network as required by the Oregon City Municipal Code (OCMC 17.56).

Exhibit 6 contains preliminary conditions of approval. Additional information and technical analysis provided by the applicant would help the City to craft more precise conditions of

approval that are fair to all parties. Based on the information provided to date, Exhibit 6 contains only the minimum physical improvements necessary for the street system.

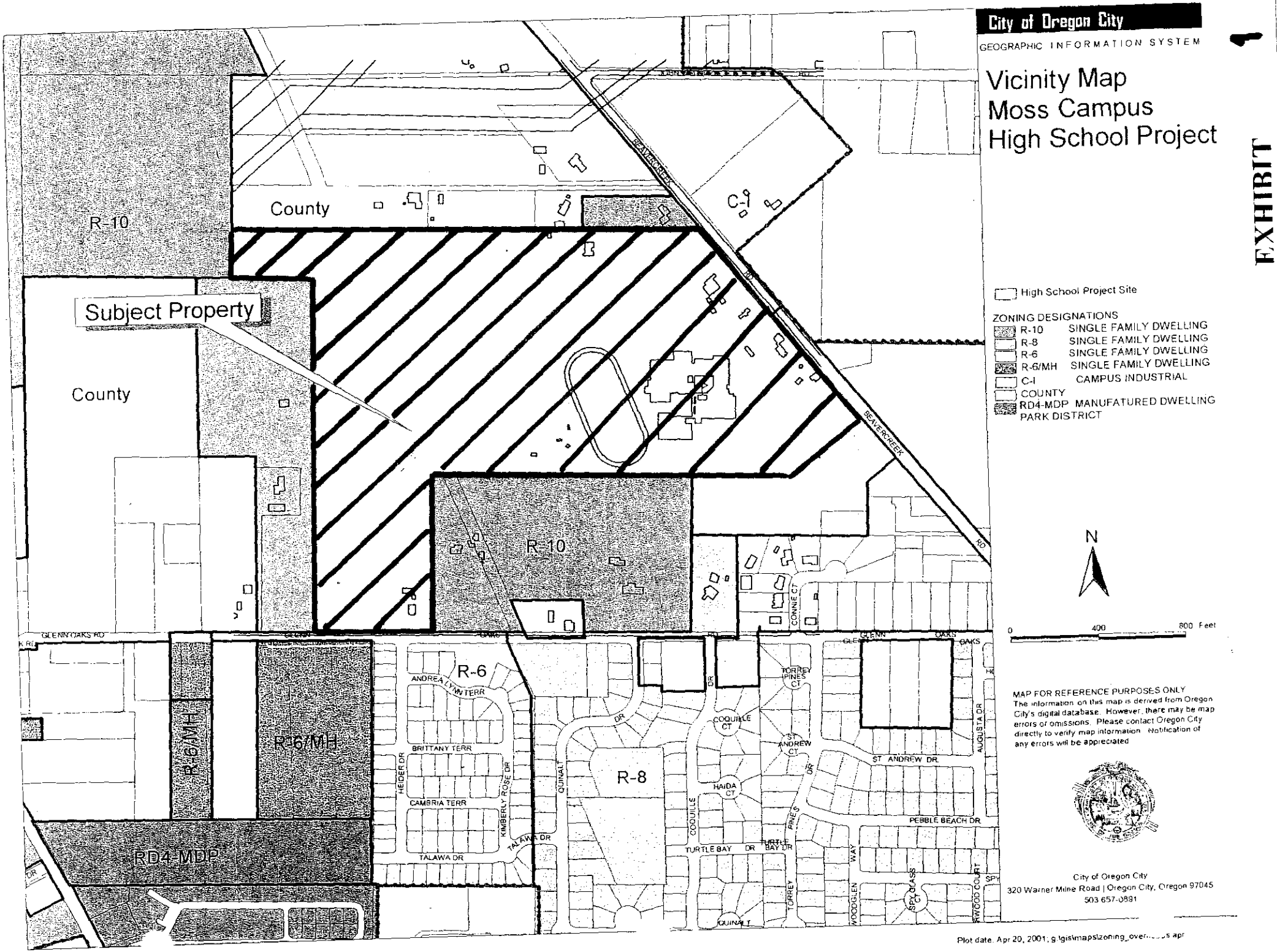
B. Variance 01-01

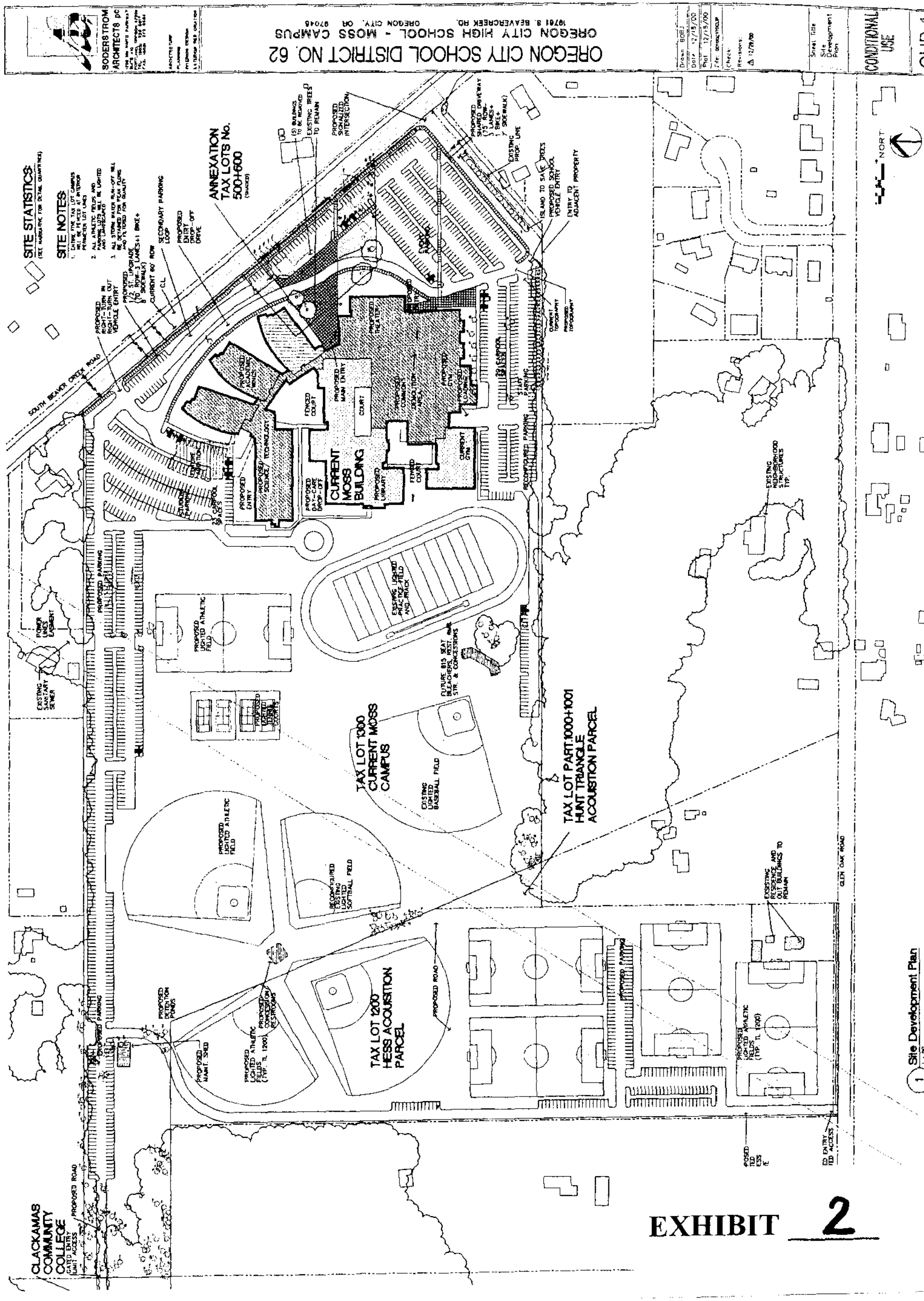
Based on the analysis contained in this report, staff recommends that the Planning Commission

- Approve the requested variances to increase maximum height requirement for a gymnasium building from 35 feet to 56 feet and for a theater/auditorium building from 35 to 52 feet; and to
- Deny the requested variance to reduce the minimum number of bicycle parking spaces from 190 to 20 for the subject property.

Exhibits:

1. Vicinity Map
2. Site Plan
3a. Applicant's Narrative
3b. Applicant's Supplemental Narrative
4a. Applicant's Traffic Impact Analysis
4b. Applicant's Supplemental Traffic Impact Information
5. Agency Comments
   - a. City Engineering
   - b. City Traffic Engineer
   - c. Oregon Department of Transportation
   - d. Clackamas County
6. Preliminary Conditions of Approval





OREGON CITY SCHOOL DISTRICT NO. 62
OREGON CITY HIGH SCHOOL - MOSS CAMPUS
19761 S. BEAVERCREEK RD. OREGON CITY, OR 97045
SODERSTROM ARCHITECTS pc
CONDITIONAL USE
SITE STATISTICS
SITE NOTES
ANNEXATION TAX LOTS No. 500+600
SOUTH BEAVER CREEK ROAD
CURRENT MOSS BUILDING
TAX LOT 1300 CURRENT MOSS CAMPUS
TAX LOT PART 1000+1001 HUNT TRIANGLE ACQUISITION PARCEL
TAX LOT 1200 HESS ACQUISITION PARCEL
CLACKAMAS COMMUNITY COLLEGE
GLEN OAK ROAD
NORTH
Site Development Plan

EXHIBIT 2

January 11, 2001

CITY OF OREGON CITY
PO Box 3040
320 Warner Milne Road
Oregon City, OR 97045-0304

RE: **Oregon City High School**

Application for Conditional Use

Oregon City File No. PA00-66

Clackamas County Tax Assessor Map 3 2E 09D Including Tax Lots 500, 600, and 1300 as well as Tax Lot 1200 (being acquired) and the newly created Lot (being partitioned and acquired) including northerly portions of Tax Lots No. 1000 and 1001.

Dear Maggie:

Attached are following documents necessary for Conditional Use Application:

Filing Fee, Application and Forms for Conditional Use, Narrative, Vicinity Map, Aerial Photo Tax Lot Map, Zoning Map, Site Development Plan, Site Landscaping/Circulation Plan, Topographic Site Map (Existing conditions), Geo-Technical Report, Traffic Study, Water Resource Report

Narrative:

General:

This is application for the Conditional Land Use within the City of Oregon City (the City), the County of Clackamas (the County) within the state of Oregon (the State). The owner for this application is the Oregon City School District No. 62 (the School District). The Owner's Project Manager, Milstead and Associates, Inc., will be the Applicant handling the Conditional Use Process.

This Application requests conversion of the current Moss Ninth Grade Campus on South Beavercreek Road into a single site High School replacing the current Moss Ninth Grade Center at Moss and the Oregon City Senior High School on at 12th and Jackson Street. This project will consolidate Oregon City High School from its present split campus to the Beavercreek Road site.

The project includes demolition of a small portion of the existing building and remodeling the rest. There will be several extensive new building additions and new standalone buildings. New support parking and extensive outdoor athletic facilities are also proposed.

The project consists of the five properties on Clackamas County Tax Lots No. 500, 600, and 1300, which are owned by the School District. Tax Lots 500 and 600 are currently in the process of

EXHIBIT 3a

Annexation into the City. The reason for Annexation is to create a single unified campus for development within City boundaries as required by City policy.

A fourth parcel Tax Lot No. 1200, currently referred to as the "Hess" Parcel" is currently in the process of being acquired and will be used for athletic fields.

A small Fifth lot, currently referred to as the "Hunt Triangle" is in the process of both being created and acquired. The new lot is formed from the northerly portions of Tax Lots No. 1000 and 1001 in a Lot line adjustment. Both of the "Hunt" parcels have the same owner and are in the City of Oregon City.

Tax Lots 500 and 600:

The two Lots No. 500 and 600 are located along the West Side of South Beavercreek Road (County Market Road No. 11). They gently slope down to the west (away from South Beavercreek Road.) at a rate of approximately six- percent.

Tax Lot No. 500 is 1.08 acres and has a house and out-building. Tax Lot No. 600 is 0.38 acres and similarly has a house and two outbuildings. Together they are 1.46 acres. The School District is currently using the house on Tax Lot No. 500 for a support Moss Campus print shop and the residence on Tax Lot No. 600 is surplus. All of these buildings will eventually be demolished.

Several significant Oak trees on both of the two Tax Lots will be saved. Many of them are being incorporated into the proposed High School project as support elements the new school Main Entry. Some trees will be removed on these parcels to allow for proposed parking lot and drop-off lane.

The design of the new campus includes the layout of buildings and athletic fields proposed on the attached drawings. New and remodeled buildings are all located on Tax Lot No. 1300 *with a small portion on Tax Lot No. 500.*

Tax Lot 1300 (the Current Moss Campus):

The current Moss Ninth Grade Campus located on adjacent Tax Lot No.1300 that consists of 48.20 acres. It is situated north, west and south surrounding Tax Lots No. 500 and 600 on three sides with South Beavercreek Road on the fourth.

The parcel slopes gently downhill to the west from at an overall rate of two percent. Drainage for these three parcels migrates west and ends up on the Clackamas Community College Campus to the northwest. The college currently accounts for this runoff and has it controlled with its own run-off in a shallow man made pond near the center of the college campus. Our Civil Engineer's discussion with the College and City has found that the current pond will need to be replaced eventually. The College is amenable to working with the School District to solve mutual drainage issues and possibly on the College's property. However, to proceed with overall improvements as quickly as possible the School District plans to mitigate run-off and water quality issues on its own property. The district is open to future discussions with valid stakeholders including neighbors and governmental jurisdictions for creative solutions and agreements.

New improvements will require removal of some trees to accomplish new campus improvements. "Sage" House (former residence) at northerly portion of Tax Lot No. 1300 will eventually be removed. It is currently used for Special Education.

The westerly portion of this parcel is designated on "Metro" Maps as Community Park. This consists of the current athletic fields. The School District intends to add more community use athletic facilities to enhance this designation.

Tax Lot No. 1200 Acquisition:

The fourth Parcel is Tax Lot No. 1200 (Hess Parcel), which has recently been annexed into the City. Tax Lot No. 1200 consists of 18.01 acres and is currently a non-producing orchard with a residence and two outbuildings consisting of a garage and shop. Combined the four parcels together will consist of 67.67 acres.

The School District is in the Process of purchasing this parcel which will be used as athletic fields. Current efforts are being made by the School District to acquire Tax Lot No 1200 at a mutually agreeable fair market price. Should negotiations stall and a longer condemnation process transpire, the School District will proceed with the work on land it owns (Parcels 500, 600, and 1300). The School District Board has approved the Condemnation Option should it become necessary for acquisition. Development of Parcel No. 1200 will occur in phases over a period of time.

The residence is located at the southeast corner of the parcel that fronts Glen Oak Road. The District may create a separate additional Tax Lot for house, outbuildings and immediate grounds. For the immediate future the residence and out building will be maintained for School District use.

The School District's intent is to remove the orchard, which currently covers most of the property for new-lighted athletic play fields.

Triangle Acquisition formed by Portions of Tax Lots No.1000 and 1001:

The Fifth Parcel (Hunt Triangle) is in the process of both being created and then acquired. Through Lot Line Adjustment proceedings a new Tax Lot will be formed. Alternatively this triangle could be included into Moss Tax Lot No. 1300. Triangle is formed with the northerly portions of Tax Lots No. 1000 and 1001. Tax Lot 1001 was a portion of the abandoned W.V.S. Railroad right-of –way which deeded to owner of Tax Lot No. 1000. Both parcels have the same owner (Hunt) and are located in the City of Oregon City.

The reason for adding this triangle is to complete the missing corner between Tax Lots 1300 (Moss) and Tax Lots 1200 (Hess). Unofficial area of newly created Hunt Triangle is approximately 14,552 SF or 0.334 Acres. Combined the five parcels consist of 68.00 Acres.

Land Use/ Zoning:

The following is a summary of Parcel Land areas:

Site Areas:

Tax Lot	Area	Acres	LU Zone	Proposed Zone
• **500**	**47,045 SF**	**1.08**	FU-10	**R-10**
• **600**	**16,552 SF**	**0.38**	FU-10	**R-10**
• 1300 (northerly)	(973,566 SF)	(22.35)	**CI**	
• 1300 (southerly)	(1,126,026 SF)	(25.85)	**R-8**	
• **Total 1300**	**2,099,593 SF**	**48.20**	**See Above**	

• **Total Three Parcels**	**2,163,190 SF**	**49.66 AC**		
• **1200** (Acquisition)	**784,516 SF**	**18.01**	**Pending**	**CI or R-10**
• **Total Four Parcels**	**2,947,706 SF**	**67.67 AC**		
• **Part. 1000+1001**	**14,552 SF**	**0.33**	**Pending**	**CI or R-10**
• **Total Five Parcels**	**2,962,258 SF**	**68.00 AC**		

Land Use Discussion:

According to City Officials it is our understanding that in order to receive Conditional Use Approval the entire Moss Campus must be consolidated into the City. This is a City policy requiring a single governmental jurisdiction over a single project. Currently Tax Lots No. 500 and 600 are zoned in Clackamas County, Low Density Residential- FU-10. Proposed Annexation zoning of these two parcels is the City comparable Single-Family Dwelling designation R-10.

The current Moss Campus Tax Lot No. 1300 is divided into two City Land Use Zones: CI (approximately 22.35 acres), Campus Commercial to the north and R-8 (approximately 25.85 acres), Single Family Dwelling to the south. The proposed acquisition parcel, Tax Lot No. 1200 has recently been annexed into the City and tentatively zoned CI. Parcel 1200 will be used for athletic play fields. On the northerly portion of the site in conjunction with Parcel No. 1300, a complex of baseball/ softball diamonds is being developed. Two are on Parcel No.1300 and two on Parcel No. 1200 in a circular configuration around a future concession/ restroom building (on Parcel No. 1300). The southeasterly field of this quartet grouping is existing with lighting. It will be modified slightly to fit this new grouping. These four fields are proposed to be night lighted. The current southwesterly field is currently night lighted as is the practice football field.

All City Land Use Zones require Conditional Use Processing for High School Use. It is our understanding that the Moss Campus Improvements are allowed under with the three different Land Use zones without a zone change to consolidate them into one.

Existing Moss Buildings:

The Moss complex was originally designed as a Junior High School and converted to Ninth grade use with minimal physical change. Currently the students are generally bused into the campus from the Jackson Campus. The Moss facility opened in 1976 and is 24 years old. Existing building systems and infrastructure are aging. This project will replace most of the obsolete mechanical and electrical systems with new energy efficient ones. Current Structural systems will be supplemented to comply with current earthquake code.

The upgraded Moss Campus will include demolishing some portions of current buildings and remodeling the remainder. It will provide a more efficient organization of the new and remodeled portions of the proposed school. The current multi-level Commons will be demolished. Current Commons lacks flexibility and handicapped accessibility required for a new High School. The remainder will be remodeled into library, offices and supplemental athletic and teaching areas.

Remodeled Moss campus buildings will be used for library, teaching and athletics. New Athletic addition will be made at south portion of Moss complex replacing smaller middle school gym.

Smaller gym will remain as a secondary athletic space and downstairs locker rooms. Currently this gym is 39.9 feet high and violates R-8 maximum of 35 feet. New gym will be a double level pair of gyms for an overall building height of 56 feet. This exceeds R-8 height limit of 35 feet.

The School District requests a Height Variance as part of this application.

Building Additions:

Several large new additions are planned. Additions include: new academic (classroom) teaching stations, science laboratories, Performing Arts Theater, athletic facilities, Student Commons. New stand-alone Buildings include: Maintenance Shed, Baseball Bleachers/ Concession/ Restroom building and another Concession/ Restroom Building for Baseball Softball. These changes are required to successfully convert Moss Ninth Grade Campus into a single consolidated four year Oregon City High School (grades 9-12) and to support a growing community.

A new 550 Seat Theater with full theatrical fly loft and main Entry will be built on the southerly half of Parcel No.1300 zoned R-8. The proposed Theater will be 52 ft high (in excess of the 35-ft. height limit).

The School District requests a Height Variance as part of this application.

At the time of this application approximately 3100 SF on two levels is to be placed on the Lot 500.

Current Jackson Campus (High School) Phase-Out:

The aging Twelfth Street, "Jackson Campus" (currently grades 10-12) will be phased out over the next three years upon the completion of the Moss improvements. District Offices on 12th Street and outdoor lighted Stadium activities (Football, Track and Field) on Van Buren Street will be maintained for the foreseeable future.

Building Construction Types:

The **Existing** Moss Building is:

- **Type V-N Construction, (Combustible), with no automatic fire sprinkler system.** The design intention is to separate existing non-rated buildings from new with rated Area Separation walls and to provide automatic fires sprinkler protection throughout the existing buildings.

The New academic and science additions are proposed to be:

- **Type II-1Hr Construction (Non-combustible), Fully sprinkled.** Westerly athletic field support buildings (maintenance shed, concessions, etc) will likely be Type V-N, Non-sprinklered.

Efficiency and Sustainability Goals:

The School District is actively seeking involvement in several State of Oregon Energy (efficiency) programs. They are working through similar programs with the local Utility (PGE). The District's goal is to make the new facilities energy efficient beyond code requirements. The District also wants to make the facilities reasonably "sustainable" in the selection of building materials, furniture equipment and landscape materials. Examples include the use of native landscape materials, the use of natural lighting, indirect and task oriented energy efficient lighting systems, natural ventilation, energy efficient mechanical systems, and "health-conscience" interior finishes.

Proposed Campus Population:

The new consolidated High School will have the following student population supported by School District projects based on current enrollment:

High School Population:

2000-1 Enrollment at Jackson Campus (grades 10-12)	1,314
2000-1 Enrollment at Moss Campus (grade 9)	555
Total Current High School Enrollment	1,869
Proposed Students (2003)	**2,100**
2010 Ultimate Student Enrollment	2,400

Proposed Building Area:

The proposed building area are based on the Education Program and the plan that are currently being developed in schematic design:

Proposed High School Program Areas:

Existing Moss 9th Grade School to be remodeled:
(96,076 SF Currently)

	Area:	Footprint:
Demolition (not incl. in total) <24,982 SF>		
Main Floor Remodel	49,637 SF	49,637 SF
Upper Gym Remodel	15,260 SF	0
Lower Gym Remodel	6,197 SF	6,197
Total Remodel	**71,094 SF**	**55,834 SF**

New Academic Wing (North), Athletic/Theater Wing (South)	**revised numbers**	
Main Floor	146,369 SF	146369 SF
Upper Academic	66,875 SF	0
Upper Gym	10,232 SF	0
Subtotal (New Construction)	**223,476 SF**	**146,369 SF**
New Maintenance Shed	1,800 SF	1,800 SF
Total Facility (2003)	**296,370 SF***	**204,003 SF***

Future Baseball/Softball Support:		
615 Seat Bleachers/Concession/Rest Rms./ Storage (interior only)	2,100 SF	2,420 SF
Future West Concession/ Rest Rms./Str.	1,600 SF	1,600 SF
Academic Addition by 2010		
New Wing	32,700 SF	16,350 SF
Total Facility (2010)	**332,770 SF**	**224,373 SF**

Notes:

*Includes Phase 2a southeasterly Academic wing that overlaps Tax Lot 500. Overlapping wing will not be constructed until Tax Lots 500 and 600 are Annexed into the City of Oregon City. This wing includes a total of 25,800 SF over two stories (12,900 SF footprint).

Planning Standards and Requested Variance:

The following are Oregon City Planning Standards for applicable Zoning:

OREGON CITY STANDARDS

Parcel	*LU Zone*	*Front Yard*	*Side Yard*	*Corner Side*	*Rear*	*Max. Height*
• TL 500	*R-10*	***25 ft***	***10/8 ft.***	*20 ft. (NA)*	***20 ft.***	***35 ft***
• TL 600	*R-10*	***25 ft***	***10/8 ft.***	*20 ft. (NA)*	***20 ft.***	***35 ft***
• TL 1300 North	*CI*	***10 ft***	***0 ft.***	*10 ft. (NA)*	***10 ft***	***40 ft***
• TL 1300 South	*R-8*	***20 ft***	*9/7 ft.*	***20 ft.***	***20 ft***	***35 ft****
• TL 1200	*CI*	***20 ft***	*0 ft.*	*20 ft. (NA)*	***10 ft***	***40 ft***
OR	*R-10*	***25 ft***	***10/8 ft***	*20 ft (NA)*	***20 ft***	***35 ft***
• Part 1000+1001	***(Same as TL 1200)***					

*Existing Moss gym building is currently 39.9' high.

PROPOSED BUILDING HEIGHT VARIANCE:

Within OC planning requirements stated above except:

- TL1300 South *R-8* **Height Variance Request** **50 ft[2] and 54 ft[3]**

The School District requests a Height Variance as part of this application.

The School District proposes Variances for the following exceptions:

1. **52 ft high for new Theater.** This height is required for a 550-seat performing arts theater. Theater room and stage requires this height for proper lighting, acoustics, and scenery drops. This theater does not have a traditional fly loft that is usually 65 feet or more. This additional requested height is acceptable per planning code because it is only volumetric functional support space and not occupied by people. The proposed volume allows the theater to have appropriate ceiling height for sight lines, patron comfort, acoustic baffles, theatrical lighting, structure for long span, mechanical system and traditional stage proscenium opening.
2. **56 ft high for proposed double level gymnasium**. Existing gym on site that will remain is currently 39.9 ft. high. New double level gym(s) will be added for various sports. This multi-gym complex includes a competition court with seating for 2400 spectators. This large room requires ceiling height to comfortably accommodate spectators. A second upper level or balcony level gym also allows for some spectators but not at the same times as the main competition gym.

Parking and Circulation:

The Consolidated Campus is being designed as a "Closed Campus" with on site parking. Students will not be allowed to go off campus during the day without special permission. Existing lots will be remodeled and additional lots are planned to meet the following load:

Required Parking: (Oregon City Planning Code Sec. 17.5.010)

1 space/ Classroom=95 teaching stations =	*95*
1 space/ Admin. Employe=32 =	*32*
1 space/ ea. 4 seats of gym =	*600*
Total Spaces Required	*727 Spaces Required*
Maximum Parking allowed = 2x req'd. = 2 x 727=	*1,452 Spaces Allowed*

Provided Parking:

(128 Current Moss Parking Spaces to be reconfigured)

Driving Students	700
Faculty/ Administration	152
Visitor spaces	248
Total provided Parking Spaces verify	**1,100 Spaces provided OK**

(Handicapped and Carpool spaces included in total).

Required Handicapped Parking: *(OSSC- (UBC) Chapter 11 447.233)*

For Lots over 1000 vehicles = 20 for the first 1000+

(1) for ea. additional 100= *21 total spaces required*

Provided Handicapped Parking: **18 Std. HC spaces provided**

(Dispersed among entries and facilities w/ 6' aisle)

Required Handicapped Van Spaces: *(OSSC- (UBC) Chapter 11 447.233)*

21÷8=2.6≅ *3 spaces Required*

Provided Van Spaces: **3 Van HC spaces provided** **OK**

(Dispersed w/ 8' aisle)

Required Carpool Spaces: *(Oregon City Planning Code 17.52.040)*

Min. 5% of sum of Employee+Student+Commuter Spaces

Located nearest all entries exclusive of HC spaces.

Provided Carpool Spaces:

152 Faculty+700 Students=825 X .05=42.6 ≅ **43 Carpool Spaces provided** **OK**

(Dispersed between faculty and student areas)

Roadway Improvements:

Roadway and circulation improvements to the three parcels 500, 600 and 1300 will include a new signalized intersection (entry driveway) on Parcel No. 1300 south property line and South Beavercreek Road (County Market Road No. 11). This proposed entry drive is perpendicular to South Beavercreek Road. The School District also proposes a second driveway about four hundred feet northwest of the newly proposed signalized main entry driveway. The City has asked that we consider our proposed entry driveway as the beginning of a new Collector /Minor Arterial Street from Beavercreek Road through the High School property west towards Highway 213. We find this unsafe, unwise and unnecessary for a number of reasons and will address this issue in a separate report

Our Traffic Study (attached) demonstrates the intersection of South Beavercreek Road and the proposed main entry driveway warrants signalization. The School District may participate in creating a shared common entry driveway with a proposed development that directly abuts school property on Parcel No.1300. The School District's intent is to dedicate approximately 35' of land to the shared common driveway parallel with this line. (Approximately 400' long at maximum) This dedication with a potential dedication from southerly neighboring properties will form the 60' Right of Way needed for a new shared common driveway **if** it is necessary for the proper development of the school property and the residential property to the south. There is a row of Maple trees along this property line. If it is acceptable to the City and southerly landowner these trees will be maintained in an island and will be the centerline of the new shared common driveway.

Existing driveways for residences on Tax Lots No. 500 and 600 will be discontinued. Current driveway for "Sage" house near northerly property line on Tax Lot 1300 will be reconfigured when the proposed development of the new northerly access point is constructed as part of the construction phasing.

This northern entry is proposed as a right-turn only (both in and out), with no crossing traffic to the northbound lanes on South Beavercreek Road permitted. This proposed access point will alleviate congestion at the southerly-proposed entry driveway, especially in the AM peak commute hours shown in the Traffic Study. This will be the prime access point for school buses and passenger car drop-off activities. Most school bus and vehicle traffic will be coming from the north. A meandering internal roadway drive roughly parallel to South Beavercreek Road will allow for both vehicle and school bus pick-up and drop-off queuing activity. The drive will have over seven hundred lineal feet of curbside sidewalk for pedestrian movement.

An interior east-west roadway is proposed parallel to the north property line of Parcel No. 1300. It begins near the proposed access point at South Beavercreek Road and terminates at west property line shared with Clackamas Community College. Several Parking areas are to located along this roadway to support the athletic fields. The west property line is at the panhandle portion of Parcel No. 1300. This access point will be a gated and limited to traffic between the two schools with no through traffic allowed. Access between the two schools will be allowed for joint use of facilities and shared programs. Emergency vehicles both to and from the High School from Clackamas Community College will be allowed to have access for both emergencies and security.

Development of acquisition Parcel No.1200 will include a limited access, north/south, internal road connecting Parcel No. 1300 perimeter road to Glen Oak Road. This access point will be adjacent to Parcel No. 1200 west property line. This road will have several parking areas along it. It is anticipated that a half street improvement will be required along Glen Oak Road. The current driveway to Glen Oak from the existing residence and out-building will be maintained as will the existing house and shop for the school district's use.

Bicycle Parking:

City Planning Code requires bicycle parking and the school intends to provide it. Based on Code provision the following applies:

Required Bicycle Parking: (Oregon City Planning Code Sec. 17.52.060)

2 space/ Classroom=95 x 2 =	*190*
Total Spaces Required	*190 Spaces Required*

Provided Bicycle Parking: (to be dispersed among principal entries and/or athletic field parking areas)

The School District feels that far fewer students will ride bicycles to school than is prescribed by Land Use regulation. The regulation appears to be written for smaller projects in general. The District reserves the right to provide fewer during Site Plan Review. This position will be justified by current data provided from the Jackson and Moss Campus.

The School District proposes a Variance for the following exception:

1. **Reduction of Required bicycle Parking.** A recent survey of bicycle use at the Moss and Jackson campuses indicates a **maximum of 8 bicycles** were parked at the two schools. Current bicycle use by students in grades 9 thru 12 is very low. The location of the Moss campus and high speed traffic along on Beavercreek Road is a further deterrent to bike use. As an alternate we would propose providing dispersed bike racks at 4 or 5 locations for a total of about 20 bikes and a commitment to provide additional bike racks if there is a demonstrated need.

Landscaping and Fencing:

Existing significant trees are being incorporated into the design of a new central entry. All existing residential structures on Parcels 500, 600 and 1300 will eventually be demolished including current fences, paving and other miscellaneous site elements to implement new school plan.

The school site will be fenced with a 6-foot high woven wire fence on interior lot lines. Project will be landscaped. Appropriate trees and plantings will be provided to make the campus pleasant and positive learning environment. Parking areas abutting neighboring residentially zoned parcels will be properly screened with plant materials or opaque fencing. A majority of the site is dedicated to athletic fields, which will be developed in appropriate field grasses. The Site will exceed City's 15% minimum landscape requirement.

Trees and plantings will be selected with security in mind so as to maintain good sight lines throughout. Plant materials will primarily be local indigenous low-maintenance species. Particular species will be selected from the City's list of acceptable landscaping materials.

Two exterior courts formed by the new building configuration have two courts between wings open from the west. This opening will be fenced to maintain security. These fences will be fitted with gates to allow egress for emergencies.

Geotechnical:

Attached geotechnical report finds that the site is acceptable for the proposed High School use and construction of new structures.

Wet Lands:

A small wet land has been located at the small drainage swale flowing south north on the panhandle portion of Parcel No. 1300. The owner's environmental consultant is studying the wet land. Their Water Resource Report is attached as part of this application.

Mitigation procedures are being developed to properly handle both during construction and permanently. The School District intends to file for and receive required permits from the Army Corp. of Engineers and Oregon Division of State Lands (DSL).

Security:

The School District has addressed security concerns in several ways. They maintain a current working relationship with the City of Oregon City Police Department currently with an assigned on site Campus Police Officer who will move to the new Campus. The District is currently working to improve on site communication systems for both day to day activities and large-scale emergencies.

The primary security feature of the new High School will be card lock keying of all secure doors in lieu of traditional keying. Camera surveillance of entries and critical locations will be provided.

The School District also wishes that no Tri-Met Bus Stop be placed in front of School Property. Few students will come that way and the Administration sees a Bus Stop as security problem in that loitering in front of school property could be legally allowed. The District does not object to a stop either north or south of the Site on South Beavercreek Road.

Schedule:

Currently Soderstrom Architects is in the Design Development Phase of the new consolidated High School. We intend to submit for conditional Use as soon as possible following our Pre-App meeting. The following schedule indicates key dates to implement the Moss Campus consolidation.

Major Schedule Dates

• Start Annexation Process of Lots 500 and 600	September 25,2000
• Start Conditional Use Process	October 30, 2000
• Submit for Early Site Package Grading/ Utilities Permit	February 12, 2001
• Submit for Building Permit	September 1, 2001
• Start Site Construction	April 1, 2001
• Start Building Construction	November 1, 2001
• Substantially Complete Building Construction	July 31, 2003
• Move-in	Aug 1, 2003

Open Full High School September 5. 2003

Phasing:

In order to accomplish the task of consolidating two campuses within the time frame described, the School District intends to phase the improvements. Simply the owner wants to procure land use approvals and site/utility work building permits for Early Site Construction Work next summer. This includes work on Parcels No. 500, 600, and 1300 (Phase I). It is the goal of the School District to have legally acquired Parcel 1200 by this time and site improvements take place there during Phase 1A, if sufficient funding is available. Ideally these improvements would start with Phase 1. Should this not happen as quickly as anticipated, the Hess Parcel site will be developed over a longer period of time as funding becomes available.

Similarly Annexation of Parcels 500 and 600 may still be in process at the time of early site work next summer. Therefore work in those parcels will be considered Phase 1B and commence when annexation is complete next spring.

Note that the existing Moss Ninth Grade School will remain open during all construction activities.

Phase 1:

Construct Site Work (Early Site Package):

The mass grading for the new academic/ science addition and athletic field improvements will be completed along with site utility work this upcoming summer of 2001. All interior site roadway and utility work will be accomplished on the northerly portion of Parcel 1300 and No.500 and 600 if annexed in time. The "Sage" house near the northerly boundary of Parcel No. 1300 will be retained as a job shack or may be demolished in the summer of 2001. The Special Education Classrooms will be relocated elsewhere in the district until space is available in the new building.

Site utilities installed during this phase will include sanitary sewer, storm water management system including detention and water quality features required. Main water line including fire protection loop and new fire hydrants will be installed and made operational for next phase when building construction begins. The phasing outlined is our current best guess and is subject to revision as required to achieve our goals of cost and time.

Phase 1A:

Tax Lot 1200: Remove Orchard; Construct Athletic Fields, Parking and Roadway to Glen Oak Road:

This phase is contingent with the acquisition of the Tax Lot 1200. Acquisition is currently in process. In order not to delay Land Use processing the School District wishes to proceed now for conditional Use with the portions of the project in direct control. Parcel 1200 will supplement proposed High School Project but is not necessary functionally or legally for land use or site engineering. Ideally therefore, for the sake of this application, work on this property will likely take place next summer along with Phase 1: Early Site Work. The Athletic fields will likely be placed in service for the summer use 2002.

This phase will include the work necessary to implement athletic field and vehicle circulation show as well as necessary utility work. This Lot slopes to the southeast towards Glen Oak Road. Storm water management will be implemented. Also a half-street improvement along Parcel No. 1200 will be implemented at this time including a new driveway access off Glen Oak Road.

Phase 1 B:

This phase is contingent with the Annexation of Lots 500 and 600 into the City of City. This is a minimum six-month process that has been started and will eventually need voter approval. Should this process find a snag as it moves from City Planning Commission, To City Council, the State Attorney General and then City Voter Approval, the School District plans to build the portions of project on Parcel 1300 regardless of the timing of Annexation. The District plans to remove the need for Building Permit on Lots 500 and 600 (similar to approach for Lot 1200). Therefore as previously mentioned by the time of application for Conditional Use the small portion of Academic Addition will be removed from Lot 500. Parking and on-site drop-off will not be constructed until Annexation takes place. Similarly Parcel 500 and 600 will supplement proposed High School Project but not required.

The residences and three accessory buildings on Parcels 500 and 600 will be removed. The exception is the two houses on parcels 500 and 600 respectively, may be used as a job shacks until project nears completion in 2003. At that time they will be raised to finalize driveway and parking improvements

Phase 2:

Construct Academic Buildings:

Building construction will begin fall of 2001. New construction will take place during this phase while Ninth Grade is in session in the current Moss facilities. Access will be separated from new construction with temporary construction fencing and barriers. The new two-story Academic and Science building addition will begin. It is possible portions of the new Theater/ Athletics areas will be started as well.

This Phase will include construction of the new northerly access entry roadwork at South Beavercreek Road. Current vehicle and pedestrian circulation patterns will be modified to allow for building construction and support activities. Care will be taken to establish safe access to the operating ninth Grade facilities.

Proposed and upgraded athletic field projects including Concession/Rest Room building will be completed during this phase. This phase includes finishing the soccer and baseball/softball fields on Parcel No. 1300 provided acquisition has been secured.

Phase 3:

Demolish/Remodel Selected Moss Buildings; Construct Theater, Commons and Gym:

This Phase will begin upon the completion of the new Academic/Science addition the summer of 2002. New Buildings will be readied to accept Ninth Grade teaching activities while remainder of project is constructed in the current Moss configuration. This phase will include the offsite roadwork at the described common entry driveway. Similar safety fencing and barriers will be provided to separate operating new ninth grade facilities from construction activities. This phase will be completed and students from Jackson Campus will report to new consolidated High School for the beginning of Classes Fall of 2003.

Phase 4:

Construct Additional Academic wing to north end of school and remodel adjacent parking lot. -TBD

This phase is has no determined time of construction between School Opening in 2003 and 2010 when demographics suggest school will need to be larger. New wing will be located in north parking lot as shown dashed in on site phasing plan. At this time it will be hard to foresee final design however an assumption is made that another two-story wing module will be added for approximately 32,700 SF. Displaced parking will be replaced elsewhere on site.

Please see a separate narrative report concerning the issue of a "Collector Street" on or through the High School site and a description of proposed alternatives.

Please begin the processing of this application and set Pre-Application Conference as soon as possible to maintain this challenging project's schedule. Your help will be greatly appreciated.

Sincerely,

MILSTEAD & ASSOCIATES, INC.

Peter F. Daniels

Project Manager

RJ/rj

Enclosure

cc: Barry Rotrock/OCSD
Ken Rezac/ OCSD
Ron Ron Stewart/ OCSD
Bob Janik/ SAPC

M&A MILSTEAD & ASSOCIATES, Inc.
CONSTRUCTION PROGRAM MANAGERS
10121 S. E. Sunnyside Road, Suite 335
Clackamas, Oregon 97015
503/654-2336
503/654-2698 Fax
email: admin@milstead.com

Ms. Barbara Shields
Oregon City Planning Department
Oregon City Oregon

Dear Ms. Shields

Thank you for responding so promptly to our Conditional Use request 01-01

Our responses are italicized and indented

Your Completeness issues were:

A. Site Consolidation Issues Versus City Jurisdiction

1. Tax Lots 500 and 600 are not in City.

   It is our understanding that the attorneys for the City and School District have resolved this issue

2. Zoning for recently annexed Tax Lots 1200, 1000 and 1001.

   The Zoning applications were forwarded to the City from this office on Feb 19th and the attorneys are in the process of procuring the record owners signature.

B. Authorization of All Record Property Owners

Signatures for Tax Lots 1200 (Hess) and 1001(Hunt) Clackamas County Map 3S-2E-09D.

If the signatures are not in the Planning Office they too are in the process and soon will be.

C. Discussion of Approval Criteria.

Narrative does not contain a discussion of approval criteria.

Following are discussions of Approval Criteria and Miscellaneous Information.

EXHIBIT 36

CU 01-01 Approval Criteria

Following is a discussion of approval criteria for a Conditional Use. Ordinance quotations are in vertical type face and *applicant's discussions are Italicized.*

Title 17 ZONING
Chapter 17.56 CONDITIONAL USES
17.56.010 Permit--Authorization--Standards--Conditions.

A **conditional use** listed in this title may be permitted, enlarged or altered upon authorization of the planning commission in accordance with the standards and procedures of this title. A conditional use permit listed in this section may be permitted, enlarged or altered upon authorization of the planning commission in accordance with the standards and procedures of this section. Any expansion to, alteration of, or accessory use to a conditional use shall require planning commission approval of a modification to the original conditional use permit.
A. The following conditional uses, because of their public convenience and necessity and their effect upon the neighborhood shall be permitted only upon the approval of the planning commission after due notice and public hearing, according to procedure as provided in Chapter 17.50.
The planning commission may allow a conditional use, provided that the applicant provides evidence substantiating that all the requirements of this title relative to the proposed use are satisfied, and demonstrates that the proposed use also **satisfies the following criteria**:

1. The **use is listed as a conditional use in the underlying district**;
The underlying zones are:
***R8** Single Family Residential*
***CI** Campus Industrial.*

Chapter **17.10.00, R-8 Single Family Residential Zone**
Section**17.10.030** Conditional uses.
The following conditional uses are permitted in this district when authorized by and in accordance with the standards contained in Chapter 17.56:
B. Uses listed in Section **17.56.030**. (Prior code §11-3-3(B))

Section **17.56.030** Uses requiring conditional use permit.
R. Private and public schools;

Chapter **17.37.00** CI **Campus Industrial Zone**
Section **17.37.020** Permitted Uses
The campus industrial district allows a mix of clean, employee-intensive industries, and offices with associated services. The district is applied to those areas designated campus industrial on the comprehensive plan map. (Ord. 93-1022 §3(part), 1993)
Section **17.37.030** Conditional uses.
The following conditional uses may be established in a campus industrial district subject to review and action on the specific proposal, pursuant to the criteria and review

procedures in Chapters 17.50 and 17.56:

E. Any other use which, in the opinion of the planning commission, is of similar character of those specified in Sections 17.37.020 and 17.37.030. In addition, the proposed conditional uses:

The Commission will have to judge whether the proposed expansion of the Moss Campus Is of similar character. It bears noting that there is a school campus adjoining the CI zone on the South (the existing Moss 9th Grade) and one on the North (Clackamas Community College).

2. The **characteristics of the site** are suitable for the **proposed use** considering **size, shape, location, topography**, existence of **improvements and natural features**;

The property has been the site of a school since 1974 and an addition to the school is being proposed. The size is adequate for the proposal and the shape has allowed the architects to develop an exemplary site plan. The Oregon City School District has concluded that it is the best location in the Urban Growth Boundary, and in the School District boundaries for the High School. Topography has not been a barrier in the past and will not hamper this building project. The architect's plan has assured that improvements will not hinder the proposal and natural features are an enhancement to it.

3. The **site and proposed development are timely**, considering the adequacy of transportation systems, public facilities and services existing or planned for the area affected by the use;

The proposal is timely for the school district in that the space could be used at present. The proposal is timely considering the adequacy of the transportation systems, public facilities and services now in place and being used by the school. The engineering consultants are confident that this expansion is compatible with the existing systems. This concern will be treated more thoroughly in the design review process.

4. The proposed use **will not alter the character of the surrounding area** in a manner which substantially limits, impairs or precludes the use of surrounding properties for the primary uses listed in the underlying district;

The use is already established and adequate buffer areas exist, so the proposed expansion will not compromise the surrounding uses.

5. The proposal **satisfies the goals and policies of the city comprehensive plan**, which apply to the proposed use.

The Comprehensive Plan in the Education section of the Community Facilities Goals and Policies says:

"Oregon City will coordinate with the Oregon City School District to encourage that school sites are located within the Urban Growth Boundary and subdivision proposals are reviewed for impact on the school system."

The proposed additions and the conversion to a high school are within the UGB and central to the areas of most active residential growth. It is recognized that the City and District have worked in concert to locate of the present school campuses and this cooperation has ensured that the size and placement of existing school sites provide adequate urban services and space for future growth.

17.56.040 Criteria and standards for conditional uses.
In addition to the standards listed herein in Section 17.56.010, which are to be considered in the approval of all conditional uses and the standards of the zone in which the conditional use is located, the following additional standards shall be applicable:

E. Schools.
The site must be **located to best serve the intended area**,

The location was selected because it is well situated in the area served by the District. In addition the UGB shows the residential growth will be on the south side of the city. This is in large part because of the natural constraints on the other sides. This location also takes advantage of the Clackamas Community College proximity with whom they have cooperative programs.

must be in **conformance with the city plan,**

The Oregon City Comprehensive Plan says:
"Oregon City will coordinate with the Oregon City School District to encourage that school sites are located within the Urban Growth Boundary and subdivision proposals are reviewed for impact on the school system."

The Moss Campus is within the UGB.

must have **adequate access**,

The Moss Campus has two access points on Beavercreek Road a major arterial and one on Glen Oak. When the new connector is constructed the whole south boundary of the site will front on it.

must be in accordance with appropriate **State standards,**

Of course.

and must meet the following **dimensional standards**

Regardless of zoning, the conditional use guidelines establish that schools must have:

1. Minimum lot area, twenty thousand square feet;
   The Moss Campus will have 2,099,593 square feet.
2. Front yard setback, twenty-five feet;
   The minimum front yard setback will be more than 130 feet.
3. Rear yard setback, twenty feet;
   The minimum rear yard setback will be *over 1,300 feet*
4. Side yard setback, twenty feet.
   The minimum side yard setback will be about 160 feet.

Var 01-01 Approval Criteria

Following re discussions of Approval criteria for variances. The Ordinance quotes are in vertical type face and *the applicant's responses in indented italics*

Title 17 ZONING

17.60.020 Variances--Grounds. Maximum Height

*The School District is requesting a variance to the **maximum height** requirement in two instances,*

***1.** For the performing arts theater from 35' to 52' a difference of 17'. The additional height is needed for "appropriate ceiling height for sight lines, patron comfort, acoustic baffles, theatrical lighting, structure for long spans, mechanical system and traditional proscenium opening." (from application narrative) The additional height is required to provide a state of the art theater with the complete curriculum for which residents voted.*

***2.** For the gymnasium area where a new double level gym is planned, the planned height is 56', which is 21' higher than the ordinance allows. Circulation, supervision, the ability to separate after hour functions and climate control indicate double level gyms work best. The setback distances, as well as the scale of the project as a whole will tend to absorb the height of the over height parts.*

A variance may be granted only in the event that **all** of the following conditions exist:

A. That the literal application of the provisions of this title would deprive the applicant of rights commonly enjoyed by other properties in the surrounding area under the provisions of this title; **or extraordinary circumstances apply** to the property which do not apply to other properties in the surrounding area, but are unique to the applicant's site

The extraordinary circumstances that apply to this application are not extraordinary to school requirements but do not fall within the literal requirements of the ordinance. The normal functioning of a performing arts theater and the circulation, climate control and separability needs of the sports area necessitates the height variances requested.

B. That the variance from the requirements is not likely to cause substantial damage to adjacent properties by reducing **light, air, safe access** or other desirable or necessary qualities otherwise protected by this title;

The extensive setbacks of the gyms, 160 feet to the side yard plus the collector right of way and the 130-foot setback from Beavercreek Road to the performing art theater will preclude any concerns with light, air and safe access for adjacent properties.

C. The applicant's circumstances are not **self-imposed** or merely constitute a **monetary hardship** or inconvenience. A self-imposed difficulty will be found if the applicant knew or should have known of the restriction at the time the site was purchased.

This requirement does not specifically apply. The applicant has

used the site successfully as a school location for many years and is converting the location to a high school. A high school has different needs than a junior high or a middle school. This request is imposed by the need for a full and complete curriculum for our students.

D. **No practical alternatives** have been identified which would accomplish the same purposes and not require a variance.

No practical alternatives have been identified.

E. That the variance requested is the **minimum variance** which would alleviate the hardship

The variances requested are the minimum needed to alleviate the hardship.

F. That the variance conforms to the **comprehensive plan** and the **intent of the ordinance** being varied. (Prior code §11-8-2)

Schools are conditional uses in the underlying zones and the heights requested are common to high school uses. The variances will not impact the comprehensive plan or ordinance.

17.60.020 Variances--Grounds. Bicycle Parking

*The School District is also requesting a variance to the **bicycle parking** requirement. Experience has shown that 8 or fewer bicycles were parked on the Moss and Jackson campuses combined. The requirement is for 2 spaces for each classroom. There are 95 classrooms; therefore 190 bicycle parking spaces would be required under the ordinance. The District proposes twenty spaces grouped through out the campus and will provide more if these are used.*

A variance may be granted only in the event that **all** of the following conditions exist:

A. That the literal application of the provisions of this title would deprive the applicant of rights commonly enjoyed by other properties in the surrounding area under the provisions of this title; **or extraordinary circumstances apply** to the property which do not apply to other properties in the surrounding area, but are unique to the applicant's site

The proposal is a unique use in the zone so is not comparable except to other such uses.

B. That the variance from the requirements is not likely to cause substantial damage to adjacent properties by reducing **light, air, safe access** or **other desirable or necessary qualities** otherwise protected by this title

This proposal can not affect the light, air, safe access or other desirable or necessary qualities protected by this title.

C. The applicant's circumstances are not **self-imposed** or merely constitute a **monetary hardship** or inconvenience. A self-imposed difficulty will be found if the applicant knew or should have known of restriction at the time the site was purchased.

This section does not apply to this request.

D. **No practical alternatives** have been identified which would accomplish the same purposes and not require a variance. That the variance requested is the **minimum variance** which would alleviate the hardship

The district has proposed the alternative of more parking than is used but less than is required and to provide more if needed.

F. That the variance conforms to the **comprehensive plan** and the **intent of the ordinance** being varied. (Prior code §11-8-2)

The proposal conforms to the practical intent of both the plan and the ordinance. The applicant's long experience has demonstrated that, for this particular use, the literal requirement is not practical and if a change in bicycle use should occur additional parking can easily be provided.

Again, we thank the Planning Department for the prompt response to the application and welcome this opportunity to respond to your concerns.

MISCELLANEOUS INFORMATION

Your Determination Of Application Completeness letter of 02/07/01 recommended that we address the following additional issues.

1. Lot Line Adjustment.

   a. The lot line adjustment for the northerly portions of Tax Lots 1000 and 1001 are in process. It is anticipated that the completion of that process will occur prior to the normal time for the Conditional Use process.

2. Transportation Impact analysis

   A Letter Of Understanding between the City Of Oregon City and The School District is in the third draft and should be consummated soon. The Letter Of Understanding will address items a, b, c, e, and f of your letter. We are providing additional information for items b, d, and g to assist your understanding of the activities and use of the proposed high school campus.

   b. The existing site has been used for a number of years as the Oregon City High School 9th grade campus. Existing football, baseball soccer and tennis fields have been in use for both physical education, community recreation and limited competition during that time. The football field is primarily used for practice and occasionally for JV games. No change in the use of the football field is anticipated in the proposed new project. The varsity football games will continue to be held at the OCHS stadium adjacent to the Jackson campus. The existing baseball field has been used as the varsity competition field for the last few years and will continue to be used in the same fashion. The existing tennis and soccer facilities are to continue their use as PE and practice facilities for the new high school and will have continue to have occasional use by the community.

      The new athletic fields (baseball, softball, soccer and tennis courts) are planned for use in the school's physical education program and will be used as practice fields for the athletic teams. Some community use of these facilities is also anticipated.

      No simultaneous use of all these fields is anticipated in a school competition or public competition. Any simultaneous use of multiple fields will be during normal school use by the students for physical education. The public aspect of the theatre/performing arts functions are to be primarily in the evening hours as opposed to the primary daytime use of the athletic fields.

d. We are currently addressing the half street improvements on Beavercreek Road with Clackamas County. The details of sight distance, deceleration lanes etc. are being worked out with the county transportation staff. We intend to have complete engineering drawings ready for final approval of the County and for the City's Design and Site Plan review permits about the first of May.

f. The internal circulation has been designed to provide separation of various functions to insure safety and movement of the students. The primary activity is the arrival and departure of school busses in the morning and afternoon time periods. This activity will occur at the front of the building at the new main entrance on the East side. This area is designed to handle the maximum queue of busses without any conflict from individual parent, student or staff vehicles. Individual parent, student or staff vehicles will have different assigned parking areas or zones and routing that will not conflict with bus use. Accommodation for emergency vehicles was addressed in detail last week with the building department and TVF&R. We are in the process of adjusting the hydrant and access road locations on the Norh and West sides of the building for emergency access as well as accommodating the new street and right-of-way requirements along the South property line which are also subject to the Letter Of Understanding noted above. These design adjustments will be submitted with the Design and Site Plan Review documents.

ANCASTER ENGINEERING
affic Studies • Planning • Safety

November 2, 2000

Marc Bevens
Soderstrom Architects, P.C.
1200 NW Naito Parkway, Suite 410
Portland, OR 97209

Dear Marc:

This letter is written to clarify two issues with respect to the traffic impact study prepared for the proposed Oregon City High School. It has come to my attention that the following issues have arisen that could potentially impact the findings of the traffic study.

1. The northern site access to Beavercreek Road may be restricted to right-turns in only, rather than right-turns in and right-turns out as assumed in the traffic study.

2. An adjacent property to the west is in the process of being acquired that will accommodate several sports fields, as well as a second connection to Glen Oak Road.

The possible restriction of the northern site access to Beavercreek Road will divert all right-turns out of the site to the traffic signal at the future collector intersection. The volume of right-turns that would be diverted is small (a nominal amount during the morning peak hour and only 10 exiting trips during the evening peak hour) and the impacts to the traffic signal at the future collector intersection would be negligible. Further restricting the northern access to right-turns in only will not change the findings of the traffic impact study.

The traffic impact study assumed a single connection between the site and Glen Oak Road, which has a significant affect on the site trip distribution and assignment. Adding a second connection to Glen Oak will not change this distribution, but may serve to reduce the amount of traffic on the single connection. However, it appears that the new access to Glen Oak Road will serve primarily the sports fields and indirectly serve the school itself, which is the main generator of peak hour site trips on a daily basis.

Union Station, Suite 206 • 800 N.W. 6th Avenue • Portland, OR 97209 • Phone (503) 248-0313 • FAX (503) 248-9

EXHIBIT 4a

It does not appear likely that a significant number of trips would use the new connection during regular peak hours, but even if it does become a popular route, the findings of the traffic impact study will not be altered.

In summary, neither of the two issues discussed above will have a significant affect nor will they change the findings of the traffic impact study. If you have any questions regarding this information, or if we can be of any further assistance, please don't hesitate to call.

Yours truly,

Todd E. Mobley, EIT
Senior Transportation Analyst

LANCASTER ENGINEERING
affic Studies • Planning • Safety

MEMORANDUM

TO: Bob Janik

FROM: Todd E. Mobley

DATE: October 12, 2000

SUBJECT: Oregon City High School

Enclosed are four bound copies and one unbound copy of the final traffic impact study. The unbound copy is for you to incorporate with other materials or make copies as needed. Please distribute the bound copies between yourselves and the school district. As we discussed on the phone, I will be available to answer any questions you may have. If I am out of the office you can reach me on my cell phone at (503) 319-9811. Please let me know if you would like any additional bound copies.

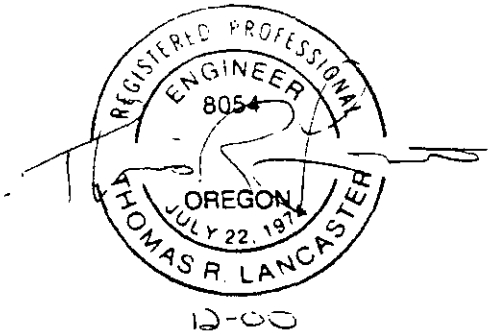
Union Station, Suite 206 • 800 N.W. 6th Avenue • Portland, OR 97209 • Phone (503) 248-0313 • FAX (503) 248-9251

LANCASTER ENGINEERING
Traffic Studies • Planning • Safety

OREGON CITY HIGH SCHOOL

Traffic Impact Study

Oregon City, Oregon



12-00

Prepared By

TODD E. MOBLEY, EIT

TOM R. LANCASTER, PE, PTOE

October, 2000

Union Station, Suite 206 • 800 N.W. 6th Avenue • Portland, OR 97209 • Phone (503) 248-0313 • FAX (503) 248-9251

TABLE OF CONTENTS

INTRODUCTION

The existing Moss Campus on Beavercreek Road has been proposed for remodeling and expansion. Following the proposed project, all high school students in the Oregon City school district will be located on site and the existing Jackson Campus will be closed. The Moss Campus is located on the west side of Beavercreek Road, south of Loder Road and north of Glen Oak Road.

The purpose of this study is to assess the traffic impact of the proposed development on the nearby street system and to recommend any required mitigative measures. The analysis will include level of service calculations and a discussion of site access.

Detailed information on level of service, traffic counts, trip generation calculations, and level of service calculations is included in the appendix to this report.

LOCATION DESCRIPTION

The Moss Campus is located on the west side of Beavercreek Road, south of Loder Road and north of Glen Oak Road in Oregon City, Oregon. The existing campus will be remodeled and expanded and is expected to accommodate 2,100 students upon opening in 2003. The school is expected to have an enrollment of up to 2,400 students in the future. This report will analyze the impacts of 2,400 students. The Oregon City school district has indicated that there are currently 555 students enrolled at the Moss Campus and approximately 1,314 students at the Jackson Campus, which will be closed upon completion of the proposed remodel and expansion. An area map showing the site locations of the Moss and Jackson Campuses is shown on page six and a vicinity map showing the proposed site, existing lane configurations, and traffic control devices in the vicinity of the project is on page seven.

A collector roadway is planned in conjunction with the school that will intersect Beavercreek Road in the location of the existing Moss Campus driveway and will curve to the south to intersect Glen Oak Road. The high school will take direct access to this future collector. The site will also have direct access to Beavercreek Road near the northern boundary of the site. The northern access is planned to be limited to right-turn in and right-turn out movements only. The collector intersection will have no restricted movements. As prescribed by the City of Oregon City, the study area consists of the following intersections:

- Beavercreek Road at Highway 213
- Beavercreek Road at Loder Road
- Beavercreek Road at the northern site access
- Beavercreek Road at the future collector intersection
- Beavercreek Road at Glen Oak Road
- Highway 213 at Glen Oak Road

Beavercreek Road is a two-lane facility in the vicinity of the site that is classified by Oregon City in the Oregon City *Transportation Master Plan* as a Major Arterial. The posted speed limit is 50 mph in the vicinity of the site.

Highway 213, also known as the Cascade Highway, is under the jurisdiction of the Oregon Department of Transportation (ODOT). ODOT classifies Highway 213 as

a District Highway. In the project study area the highway is a five-lane facility with left and right-turn lanes on both approaches to the intersection with Beavercreek Road. The posted speed on Highway 213 is 55 mph. The intersection of Highway 213 and Beavercreek Road is controlled by an eight-phase actuated traffic signal.

An improvement project is currently planned and funded for this intersection that includes the construction of dual left-turn lanes on both approaches of Beavercreek Road and a southbound dual left-turn lane on Highway 213. This project is planned for completion in 2003.

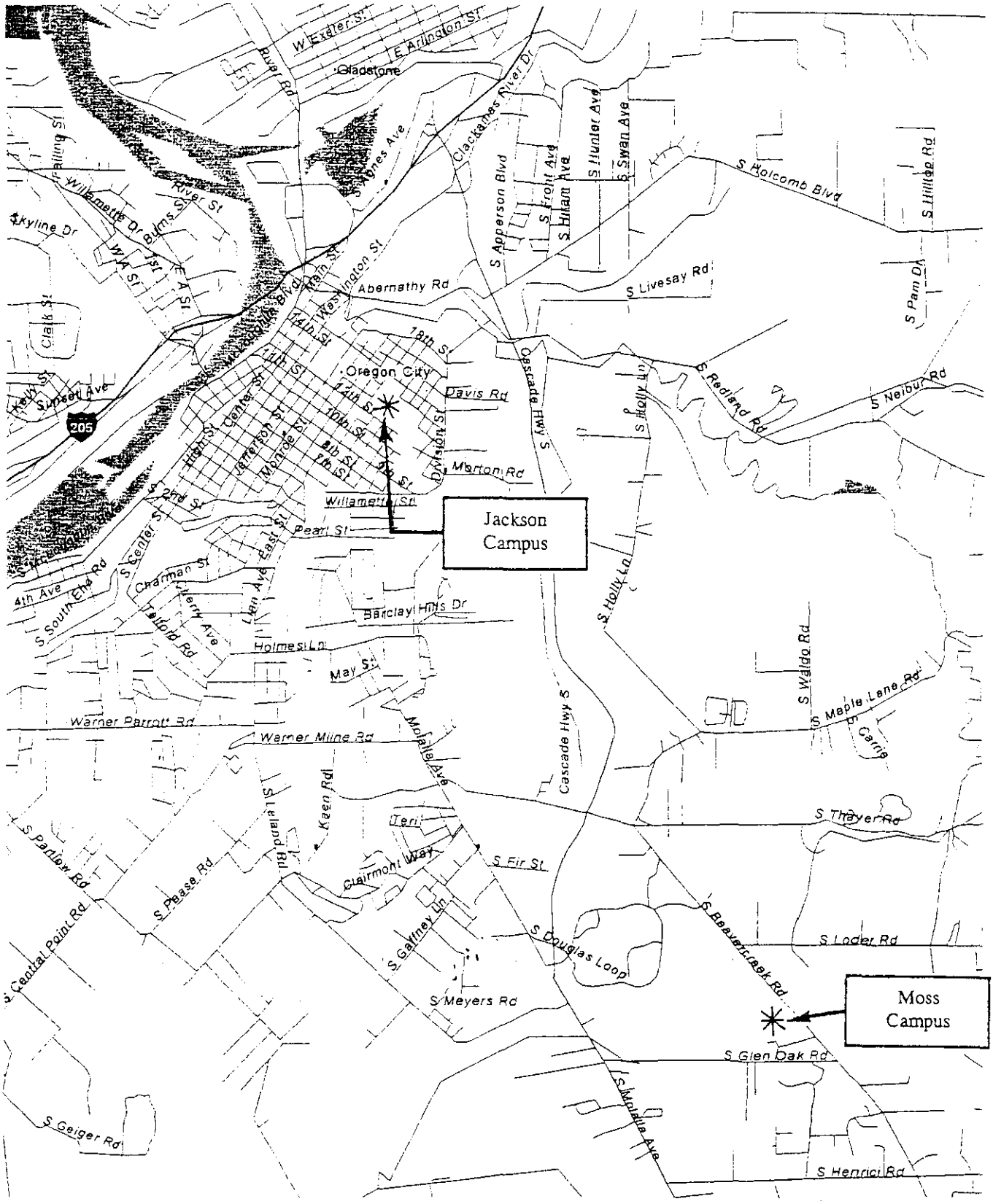
Loder Road is a rural two-lane roadway that is under the jurisdiction of Clackamas County. It is designated by the County as a local road. Loder Road forms a "T" shaped intersection with Beavercreek Road with traffic on Loder Road being controlled by a stop sign. Each leg of the intersection has a single lane approach.

Glen Oak Road is also a two-lane roadway under the jurisdiction of Clackamas County that is classified as a local road. Glen Oak Road intersects Beavercreek Road to form a "T" shaped intersection with traffic on Glen Oak Road controlled by a stop sign. This intersection was recently improved and there is currently a northbound left-turn lane on Beavercreek Road and exclusive left and right-turn lanes on Glen Oak Road.

Glen Oak Road intersects Highway 213 from the east, with Caufield Road forming an offset fourth leg, intersecting from the west. Traffic on Glen Oak Road and Caufield Road is controlled by stop signs. There are left-turn lanes in place on Highway 213. An improvement project has long been proposed for this intersection that would realign the minor streets and include a traffic signal. That project has not been completed, but the need for the improvements has been identified repeatedly in previous traffic impact studies for the numerous residential subdivisions recently approved along Glen Oak Road.

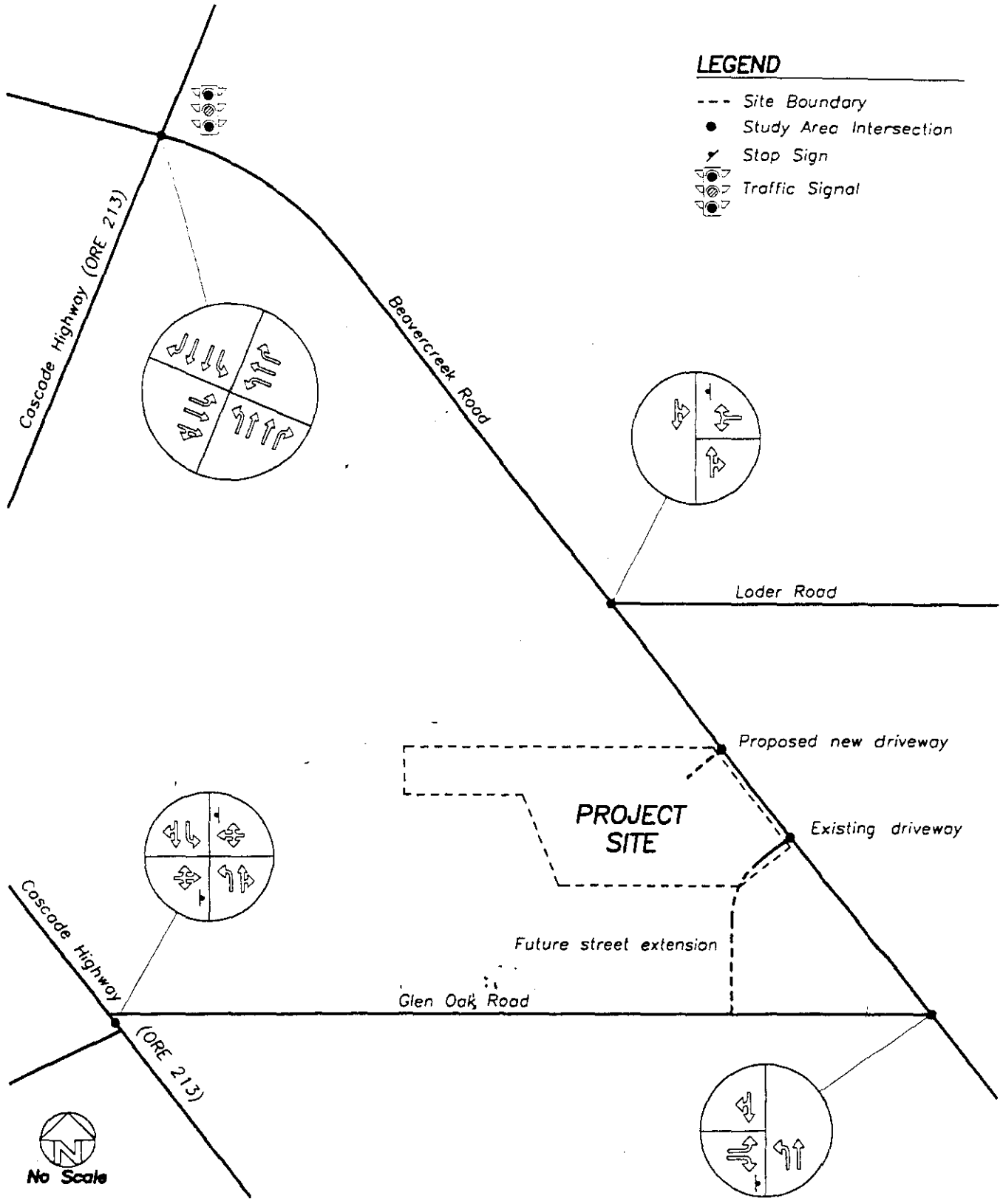
The site is served by Tri-Met route 32 on Beavercreek Road. This route provides service between Clackamas Community College and the Milwaukie Transit Center, as well as to Downtown Portland. During the morning and evening peak hours, buses arrive every 25 to 30 minutes.

Manual turning movement counts were made at the study area intersections in September 2000 from 7:00 to 9:00 AM and from 4:00 to 6:00 PM. The morning peak hour is approximately 7:15 to 8:15 and the evening peak hour is from approximately 4:45 to 5:45 PM. The volumes for the morning and evening peak hours are shown in the traffic flow diagram on page eight.



LANCASTER ENGINEERING

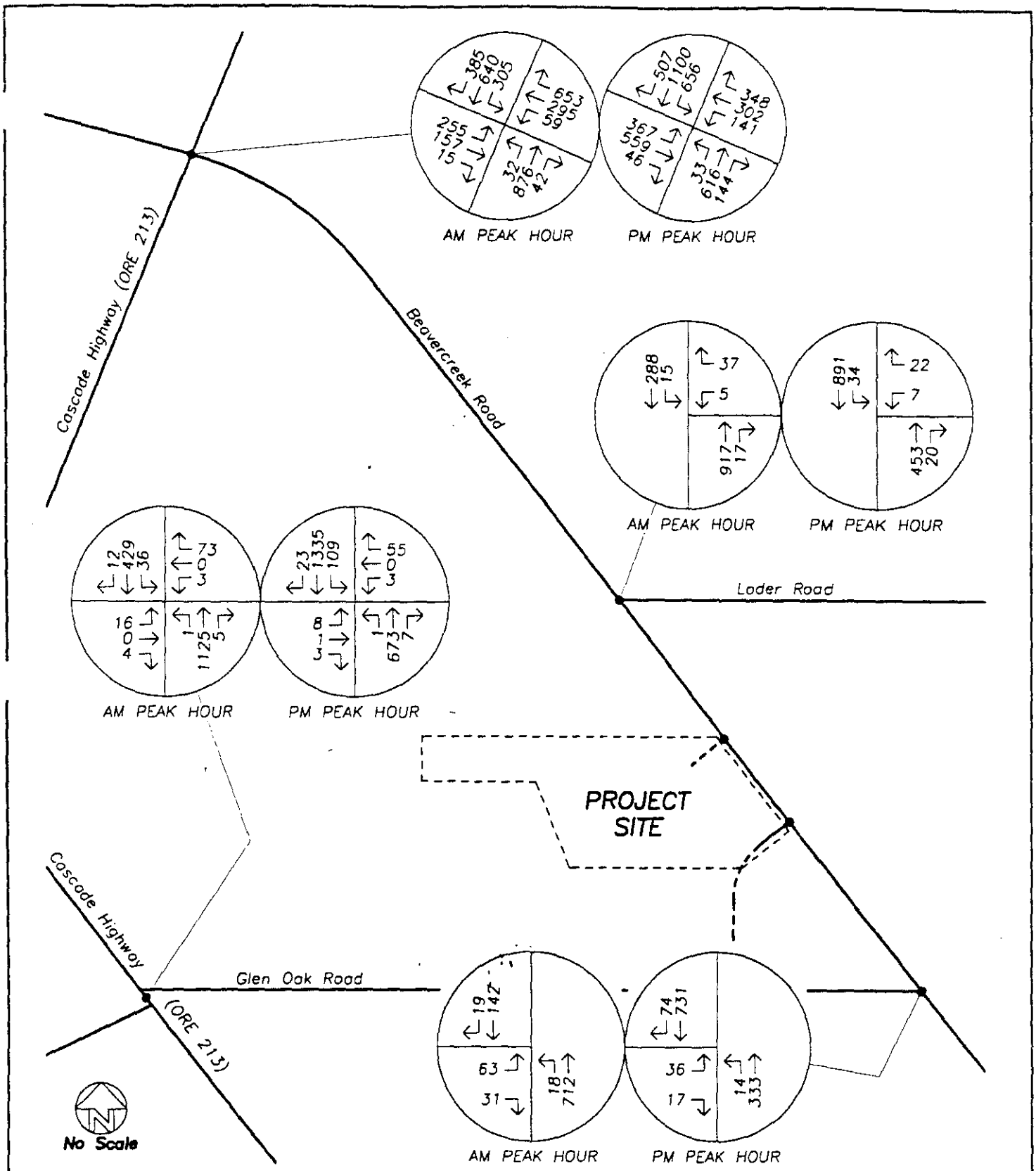
AREA MAP



LANCASTER ENGINEERING

VICINITY MAP
Existing Lane Configurations & Traffic Control Devices

ochigh.dwg



LANCASTER ENGINEERING

TRAFFIC VOLUMES
Existing Conditions
AM & PM Peak Hours

ochigh.dwg

TRIP GENERATION

To estimate the number of trips that will be generated by the proposed development, trip rates from *TRIP GENERATION,* Sixth Edition, published by the Institute of Transportation Engineers (ITE), were used. The trip rates used were for land-use code 530, *High School.* The trip generation rates are based on the number of students.

Because no traffic counts were available at the Moss Campus driveway, the trip generation calculations were done for two different enrollments. The first calculation was done for 2,400 students and this was applied to the site access locations to show the traffic volumes when the expansion is completed. Since the off-site intersection counts were done after school was in session, the traffic from the current 555 students is included in the count data. For this reason, trip generation calculations for 1,845 students were done and applied to the off-site intersections.

Since the site is an origin or destination for site trips, a reduction for pass-by trips was not made.

The trip generation calculations indicate that the 2,400 student high school will generate a total of 1,104 trips during the morning peak hour with 773 entering and 331 exiting the site. The evening peak hour is expected to result in 360 trips with 144 entering and 216 exiting the site. A weekday total of 4,296 trips are expected with half entering and half exiting the site.

A summary of the trip generation calculations is shown in the following table. The trip generation results include traffic from school buses as well as passenger vehicles. Detailed trip generation calculations are included in the appendix to this report.

TRIP GENERATION SUMMARY

Oregon City High School

	Entering Trips	Exiting Trips	Total Trips
2,400 Students			
AM Peak Hour	773	331	1,104
PM Peak Hour	144	216	360
Weekday	2,148	2,148	4,296
1,845 Students			
AM Peak Hour	594	255	849
PM Peak Hour	111	116	227
Weekday	1,651	1,651	3,302

Proposed Use & Existing Zoning

The proposed high school is a conditional use under the existing zoning. The underlying zoning on the site is predominantly a combination of commercial (C-1) and residential (R-8). Approximately 22.4 acres are zoned C-1 and approximately 25.7 acres are zoned R-8. Based on this, it is reasonable to assume that a 243,000 square foot shopping center could be constructed on the C-1 portion and 139 single-family homes could be constructed on the R-8 portion. Trip generation calculations were done for this theoretical build out under the existing zoning and then compared to the proposed high school. For the theoretical build out, land use codes 820, *Shopping Center*, and 210, *Single Family Detached Housing*, from the manual *TRIP GENERATION* were used. A summary of the calculations and comparison is shown in the following table.

TRIP GENERATION SUMMARY

Existing Zoning vs. Proposed Development

	Entering Trips	Exiting Trips	Total Trips
Existing Zoning			
Shopping Center (new trips only)			
AM Peak Hour	123	79	202
PM Peak Hour	379	411	790
Weekday	4,222	4,222	8,444
Residential			
AM Peak Hour	26	78	104
PM Peak Hour	90	50	140
Weekday	665	665	1,330
Total Existing Zoning			
AM Peak Hour	149	157	306
PM Peak Hour	469	461	930
Weekday	4,887	4,887	9,774
Proposed High School			
AM Peak Hour	773	331	1,104
PM Peak Hour	144	216	360
Weekday	2,148	2,148	4,296

As shown in the table, the proposed high school will generate fewer evening peak hour and weekday trips than a development under the existing zoning, but will generate more trips during the morning peak hour. This difference in trip generation will not affect the results of the near-term traffic analyses, but will be an important factor in the 2018 forecast traffic analysis that will be discussed in detail later in this report.

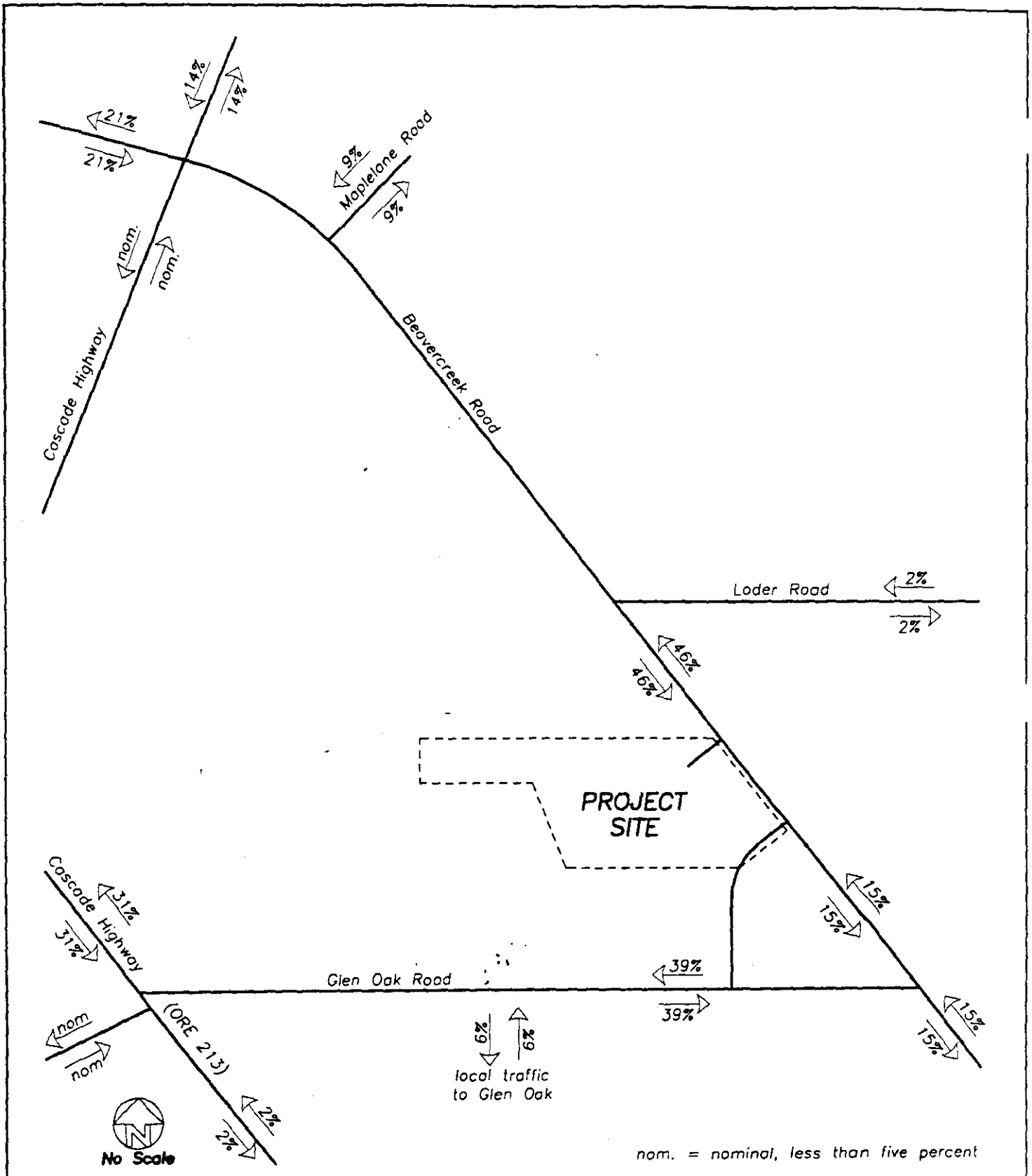
TRIP DISTRIBUTION

The directional distribution of the site trips generated by the proposed development was estimated based on data supplied by the Oregon City school district showing the distribution of students throughout the city. A large map was divided into 12 separate zones and the number of students from each zone was identified. Based on the number of students in each zone and the probable routes to and from the site, an overall distribution pattern was compiled.

The traffic flow diagram on page 13 shows the distribution of the site trips from the school. The diagram on pages 14 show and 15 show the assignment of the site trips to the study area intersections for the morning and evening peak hours.

Also, a portion of the trips generated by the existing Jackson Campus are currently in the project study area. The zones that generate these current student trips were identified, and based on the current enrollment of 1,314 students, the number of trips from each zone were identified. When the proposed Moss Campus expansion is complete and the students shift from the Jackson Campus, these trips will be "redistributed" through the project study area.

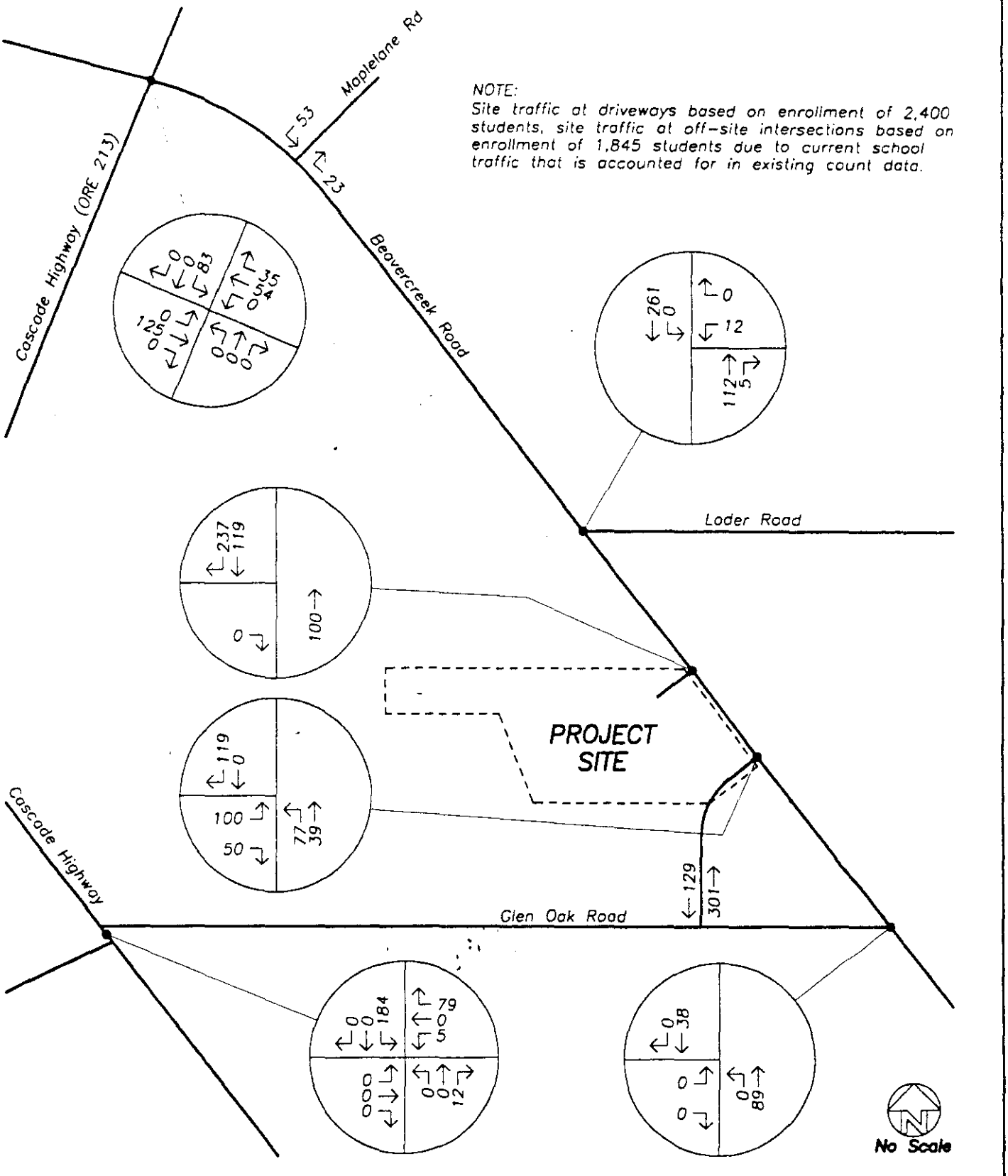
The diagram on page 16 shows the redistributed traffic at the study area intersections.



LANCASTER ENGINEERING

SITE TRIP DISTRIBUTION
Inbound & Outbound Percentages
AM & PM Peak Hours

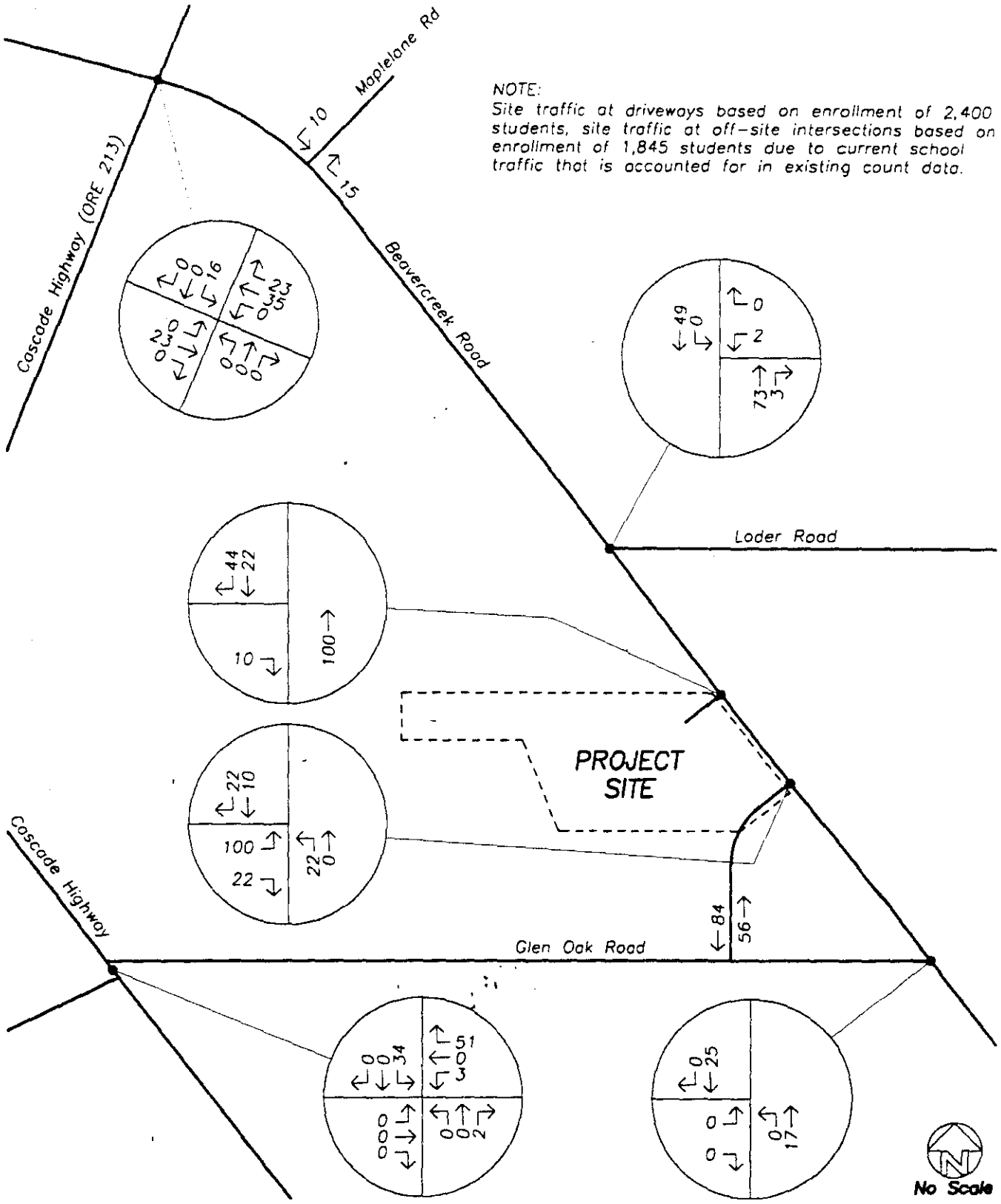
ochigh.dwg



LANCASTER ENGINEERING

TRAFFIC VOLUMES
Site Trips
AM Peak Hour

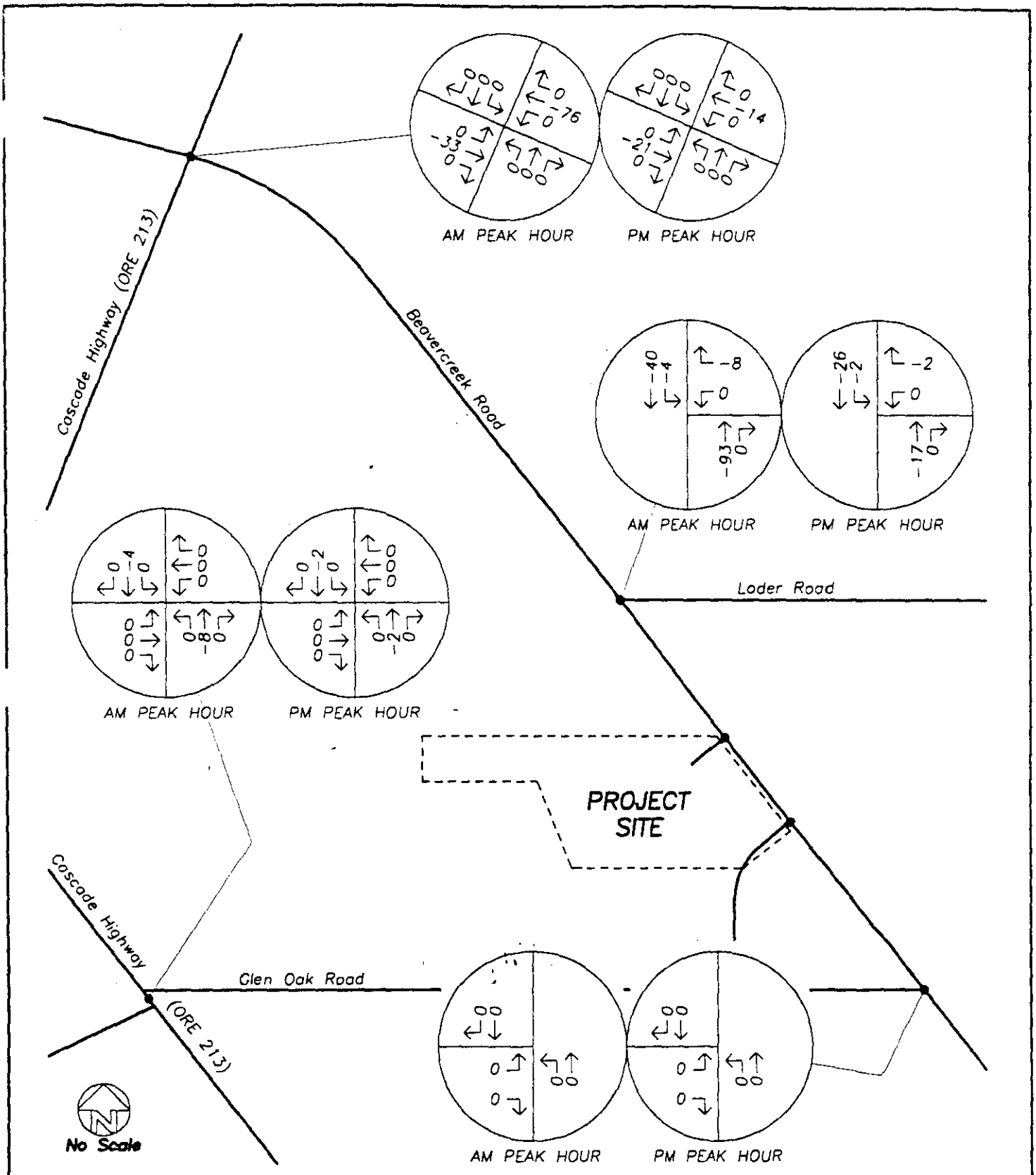
ochigh.dwg



LANCASTER ENGINEERING

TRAFFIC VOLUMES
Site Trips
PM Peak Hour

ochigh.dwg



LANCASTER ENGINEERING

TRAFFIC VOLUMES
Redistributed Trips From Jackson Campus
AM & PM Peak Hours

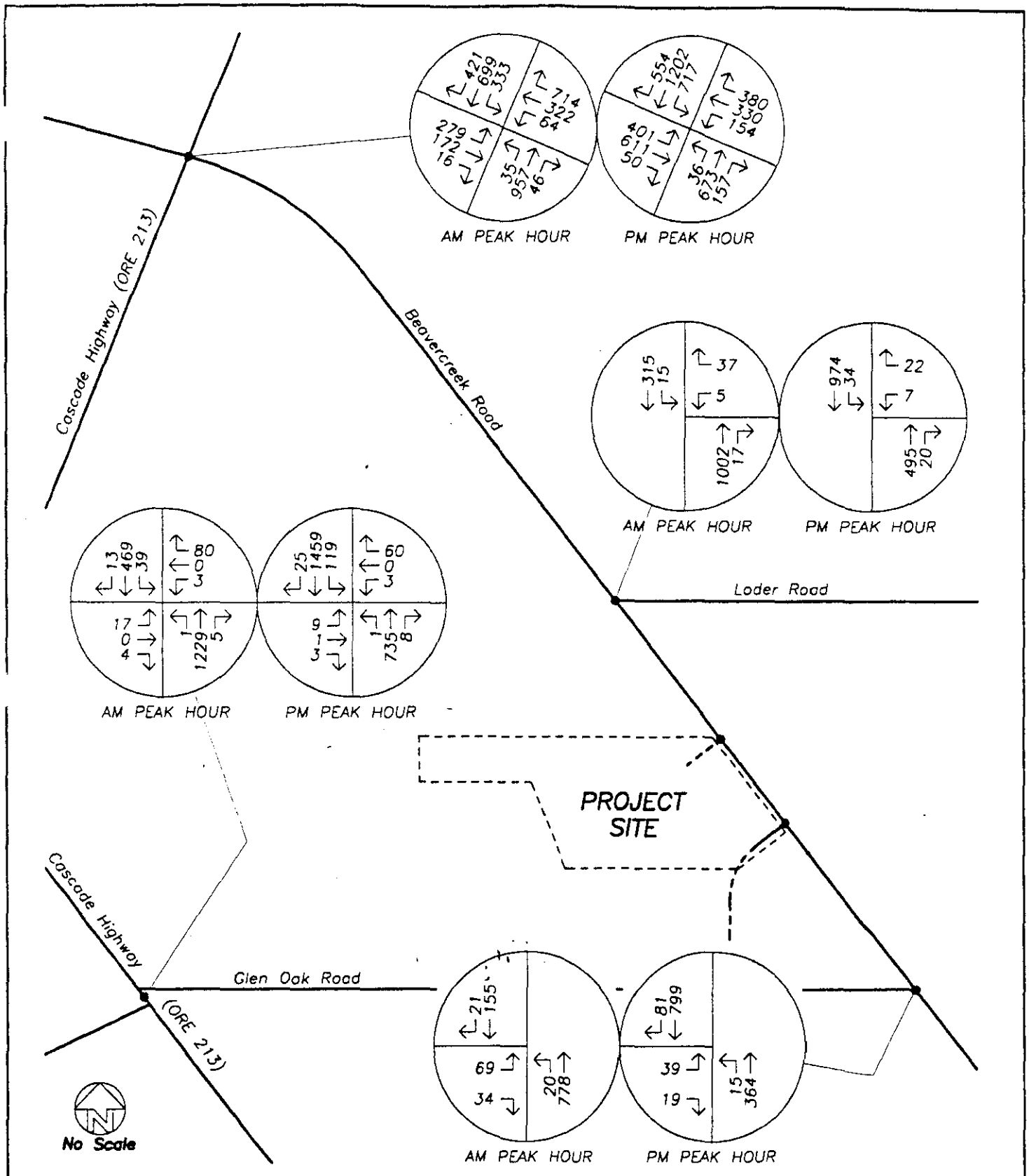
ochigh.dwg

OPERATIONAL ANALYSIS

2003 Background Traffic

There is a large amount of residential and commercial development taking place in and around Oregon City. Identifying each development that could contribute traffic to the project study area for the subject development would be a difficult, if not impossible task. To account for these surrounding developments, the existing traffic volumes were increased by a growth rate of three percent per year for three years to estimate conditions upon project completion. Traffic data from several nearby developments, including a retail building near the intersection of Maplelane Road and Beavercreek Road, was readily available and traffic from these projects was added in addition to the applied growth rate.

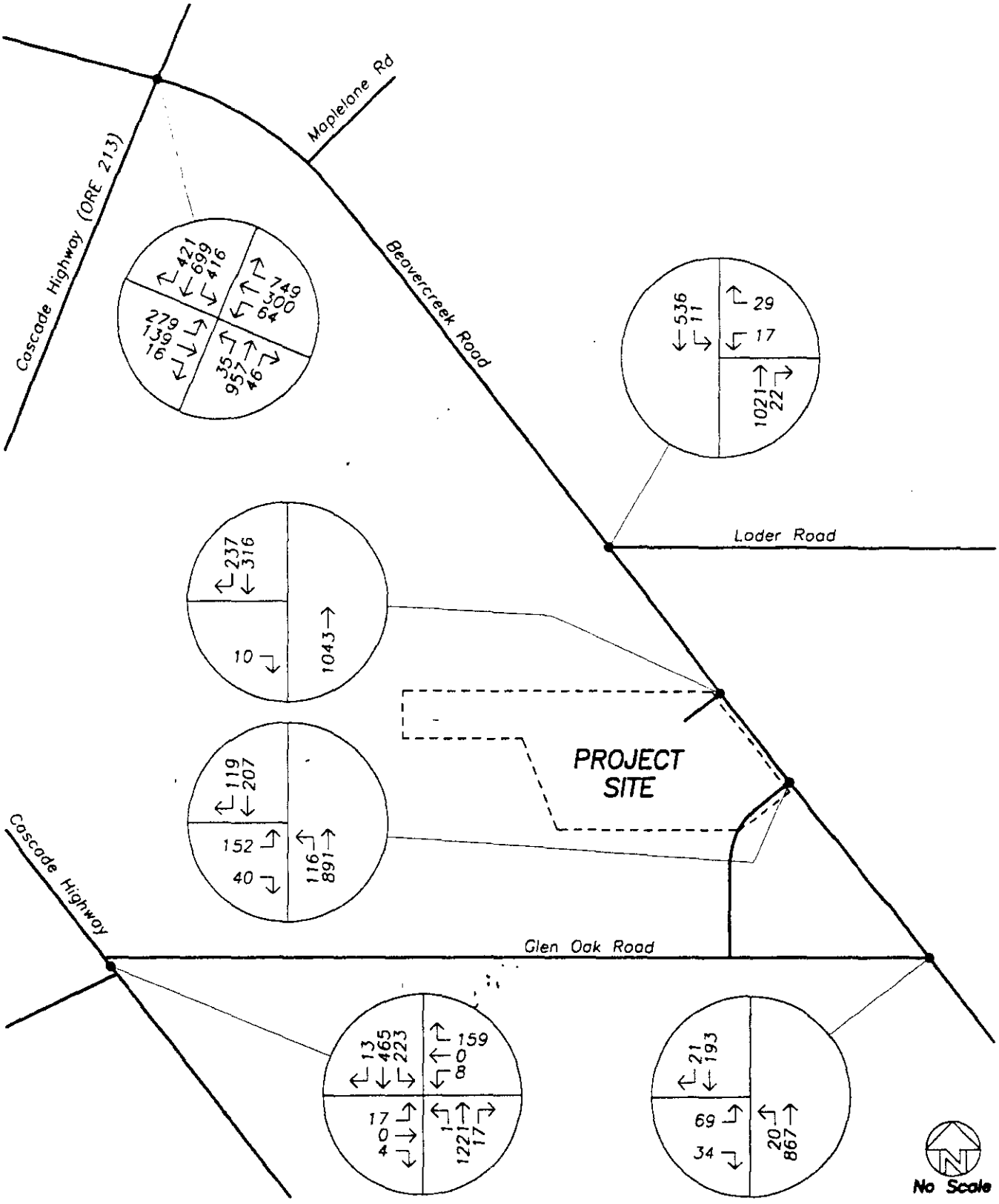
The total of existing traffic volumes with the three percent per year growth rate applied and the available data on other developments comprises the background traffic. The 2003 background traffic volumes at the study area intersections are shown on page 18. Background traffic volumes plus site trips from the proposed school, including the redistributed traffic from the Jackson Campus, are shown on pages 19 and 20.



LANCASTER ENGINEERING

TRAFFIC VOLUMES
2003 Background Traffic
AM & PM Peak Hours

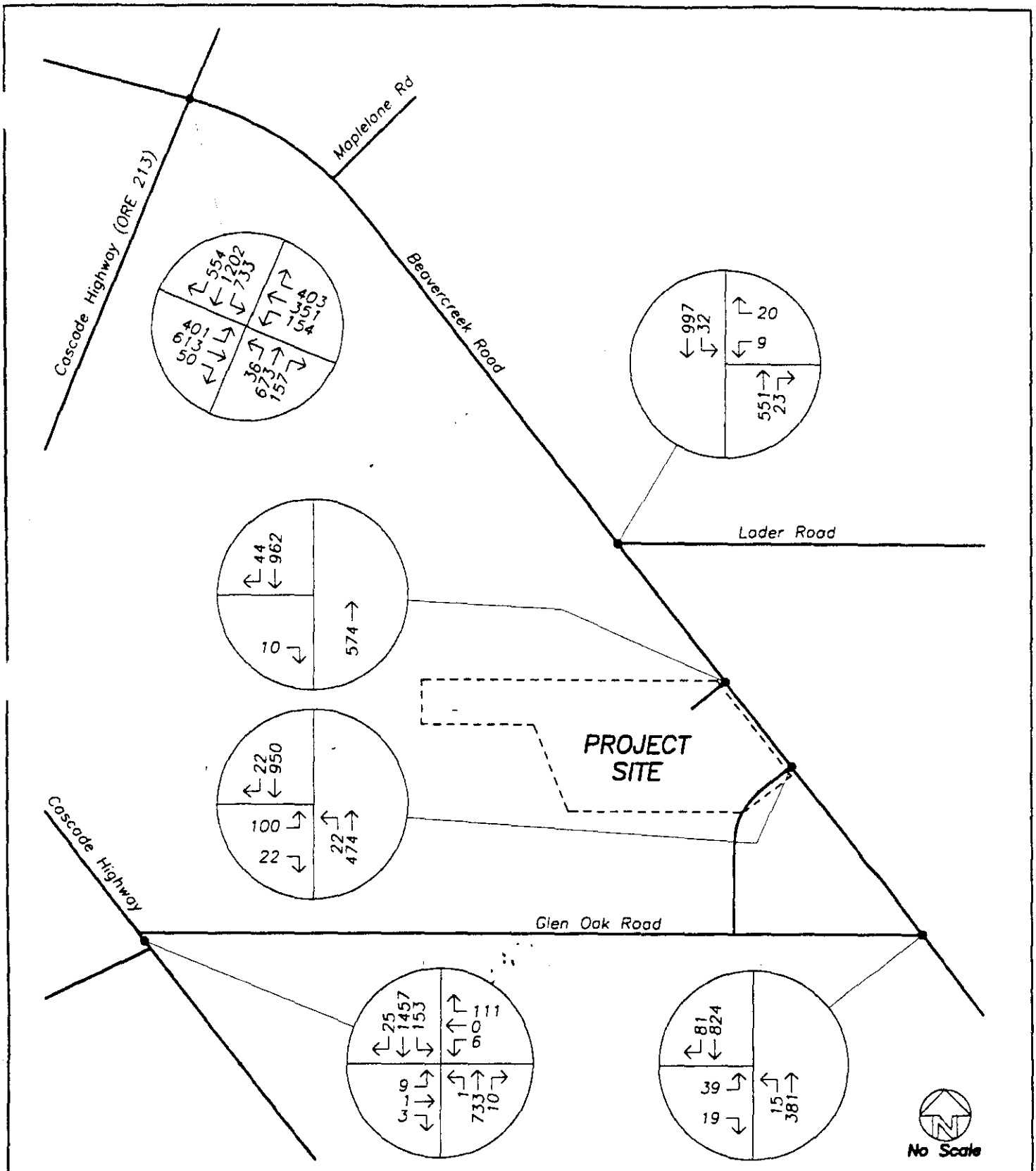
ochigh.dwg



LANCASTER ENGINEERING

TRAFFIC VOLUMES
2003 Background w/ Redistribution + Site Trips
AM Peak Hour

ochigh.dwg



LANCASTER ENGINEERING

TRAFFIC VOLUMES
2003 Background w/ Redistribution + Site Trips
PM Peak Hour

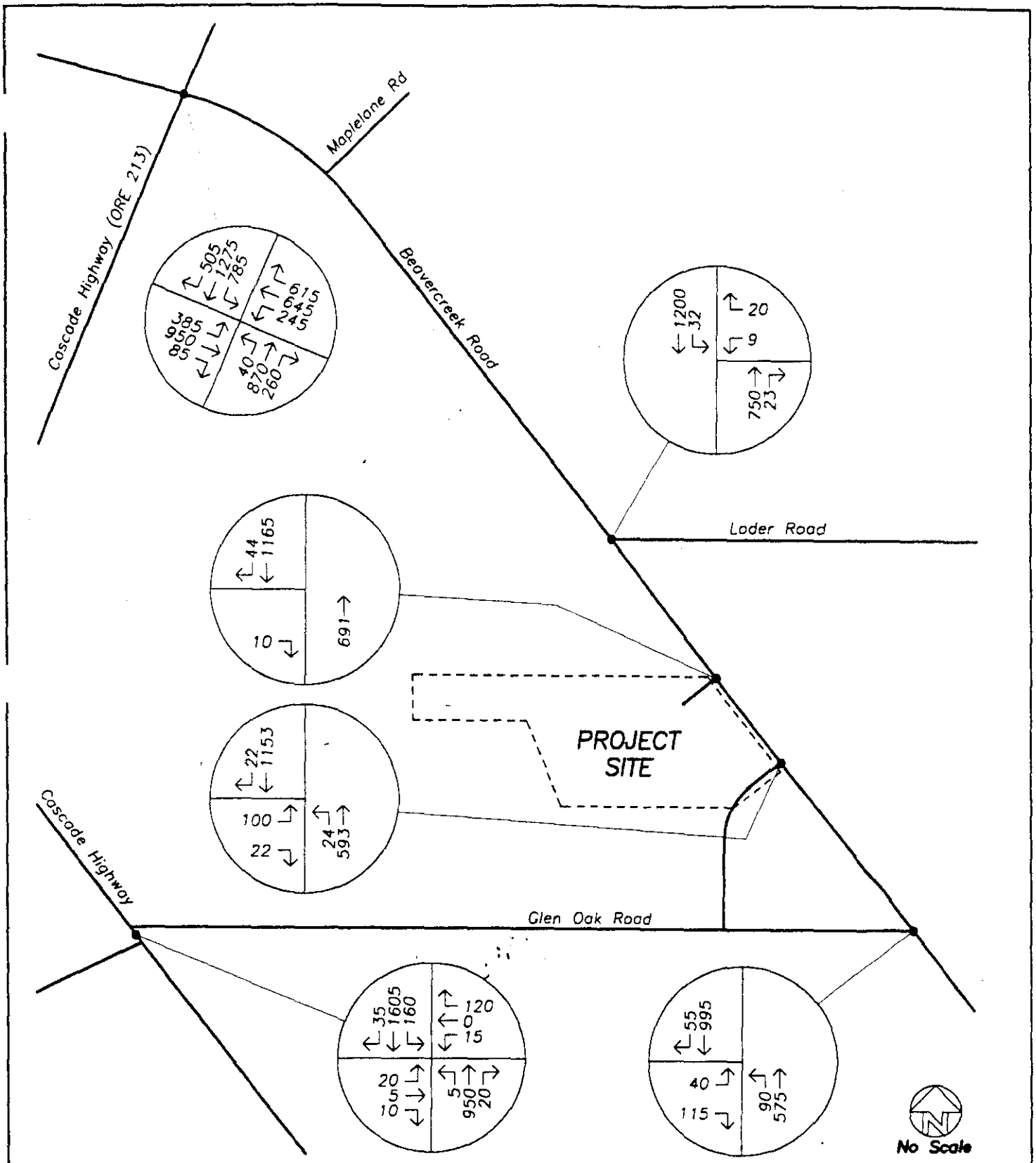
ochigh.dwg

Year 2018 Conditions

As required by the City of Oregon City, a long-term traffic analysis was made. In this case, year 2018 was examined due to the availability of data at the study area intersections for this horizon year. The forecast 2018 traffic volumes were supplied by Kittelson and Associates as excerpted from the *Highway 213 Urban Corridor Design Study* and the *City of Oregon City Transportation System Plan*. Kittelson and Associates has done extensive work on a transportation system model for 2018 conditions in Oregon City. This data is assumed to be the most recent and accurate 2018 forecast data available. Year 2018 data is not available for the morning peak hour.

As explained previously in this report, the proposed school with a conditional use permit will generate fewer evening peak hour trips than a possible development under the existing zoning. The forecast 2018 traffic volumes were derived based on build out of land in the area under its existing zoning. As a result, the volumes may be slightly overestimated given the reduction in evening peak hour trip generation from the proposed school. However, given the unpredictable nature of long range traffic forecasts, the 2018 traffic volumes were not adjusted for this discrepancy. The difference in trip generation of a possible development under the existing zoning and the proposed school is negligible given that accuracy of long range traffic forecasts.

The estimated 2018 traffic volumes for the weekday evening peak hour are shown on page 22.



LANCASTER ENGINEERING

TRAFFIC VOLUMES
Forecast 2018 Conditions
PM Peak Hour

ochigh.dwg

Traffic Signal Warrants

A traffic signal warrant comparison was made to determine if traffic signals are or will be warranted at the unsignalized study area intersections of Beavercreek Road with the site driveway, future collector roadway, and Glen Oak Road. The *Minimum Vehicular Volume Warrant*, the *Interruption of Continuous Traffic Warrant*, and the *Peak Hour Warrant* from the *MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES*, published by the Federal Highway Administration, were examined. Seventy percent of the standard warrants were used since the posted speed on Beavercreek Road is 50 mph.

When evaluating the *Minimum Vehicular Volume Warrant* and the *Interruption of Continuous Traffic Warrant*, it is assumed that the evening peak hour is ten percent of the average daily traffic (ADT) and that the 8th highest hour is 5.3 percent of the ADT.

None of the three signal warrants examined were satisfied at the north school driveway to Beavercreek Road, but the *Peak Hour Warrant* will be satisfied at the future collector intersection for both the morning and evening peak hours in 2003 with the school completed. No additional warrants will be satisfied by 2018.

None of the three signal warrants were satisfied for any scenario at the intersection of Beavercreek Road and Loder Road.

At the intersection of Beavercreek Road and Glen Oak Road, the *Peak Hour Warrant* is satisfied during the morning peak hour in 2003 without the school expansion. Addition of site trips from the school does not trigger any additional warrants. By 2018 the *Peak Hour Warrant* will be satisfied for both peak hours.

At the intersection of Highway 213 and Glen Oak Road, the *Peak Hour Warrant* is satisfied during the morning peak hour without the school expansion. With the school expansion in place, the *Peak Hour Warrant* is satisfied during both the morning and evening peak hours and the *Interruption of Continuous Traffic Warrant* is also satisfied. These warrants will continue to be satisfied through 2018.

A summary of the signal warrant analysis is shown in the following table. Detailed information on the warrant analysis is given in the appendix to this report.

TRAFFIC SIGNAL WARRANT COMPARISONS

✓ = warrant is met

	Warrant 1	Warrant 2	Warrant 11 AM	Warrant 11 PM
Beavercreek Road at North Driveway				
2003 Background + Site Trips				
2018 Conditions				
Beavercreek Road at Collector (South Driveway)				
2003 Background + Site Trips			✓	✓
2018 Conditions			✓	✓
Beavercreek Road at Loder Road				
2003 Background Traffic				
2003 Background + Site Trips				
2018 Conditions				
Beavercreek Road at Glen Oak Road				
2003 Background Traffic			✓	
2003 Background + Site Trips			✓	
2018 Conditions			✓	✓
Highway 213 at Glen Oak Road				
2003 Background Traffic			✓	
2003 Background + Site Trips		✓	✓	✓
2018 Conditions		✓	✓	✓

Warrant 1 = Minimum Vehicular Volume
Warrant 2 = Interruption of Continuous Traffic
Warrant 11 = Peak Hour Warrant

Left-Turn Lane Warrants

A left-turn lane warrant analysis was made to determine whether left-turn lanes will be warranted on Beavercreek Road at the future collector intersection. The warrants used were those developed in the *HIGHWAY RESEARCH RECORD NO. 211*, published by the Transportation Research Board as adapted by the Oregon Department of Transportation. The warrants for two-lane highways consider through volumes, left-turning volumes, and speeds.

When the school expansion is completed in 2003 the left-turn lane warrants will be satisfied at the future collector intersection.

Capacity Analysis

To determine the level of service at the study area intersections, a capacity analysis was conducted. The level of service can range from A, which indicates very little or no delay, to level F, which indicates a high degree of congestion and delay. Level D is generally considered to be the minimum acceptable level of service for signalized intersections in urban areas, and level E is the minimum acceptable level for unsignalized intersections. The capacity analysis was made for the weekday morning and evening peak hours for the following scenarios:

- Existing conditions
- 2003 Background conditions
- 2003 Background plus site trips
- 2018 Conditions

The study area intersections were analyzed using the signalized and unsignalized intersection analysis methods in the 1997 update to the *HIGHWAY CAPACITY MANUAL*, Special Report 209, published by the Transportation Research Board.

The intersection of Highway 213 and Beavercreek Road is currently operating at level of service E during the morning peak hour and at level of service F during the evening peak hour. As explained previously, an improvement project at this intersection is planned and funded that will add left-turn lanes on several approaches. The project is planned for completion in 2003 and with the improvements in place, the intersection will operate at level of service D during both peak hours. The addition of traffic from the expanded high school will not change this level of service. By 2018 the intersection is expected to again be operating over capacity at level of service F.

The intersection of Loder Road at Beavercreek Road is currently operating at level of service D during the morning peak hour and at level of service C during the evening peak hour. These levels of service refer to traffic on Loder Road since this leg of the intersection experiences the longest delays. With the addition of site traffic the level of service will degrade to F during the morning peak hour and D during the evening peak hour. The intersection will operate at level of service E during the evening peak hour by 2018.

The intersection of Beavercreek Road and Glen Oak Road is currently operating at level of service C during the morning peak hour and at level of service D during the

evening peak hour. These levels of service refer to traffic on Glen Oak Road since this leg of the intersection experiences the longest delays. By 2003 the intersection will operate at level of service D during both peak hours. With the addition of traffic from the proposed school expansion the intersection will operate at level of service E during both peak hours. By 2018 the intersection will operate at level of service F as an unsignalized intersection. If a traffic signal is constructed the intersection would operate at level of service C during the evening peak hour in 2018.

The intersection of Highway 213 at Glen Oak Road is currently operating at level of service F during both peak hours. An improvement project to realign the minor street approaches and install a traffic signal has been planned for some time but has not been implemented. With a traffic signal in place the intersection would operate at level of service C during both peak hours in 2003 without the proposed school. With the school in place the level of service would degrade to D during the morning peak hour and remain at C during the evening peak hour.

The school adds a significant amount of southbound left-turns to the intersection of Highway 213 and Glen Oak Road during the morning peak hour. The existing left-turn lane has approximately 150 feet of vehicle storage. It is expected that with a traffic signal at the intersection and the school in place, 250 feet of storage will be needed for the southbound left-turn lane. By 2018 the intersection will operate over capacity. The heavy through traffic on Highway 213 necessitates widening of the highway to five lanes to achieve acceptable operation.

The intersection of Beavercreek Road at the future collector intersection will operate at level of service F in 2003 when the school opens unless a traffic signal is constructed. As a signalized intersection, it would operate at level of service B during the morning peak hour and at level of service C during the evening peak hour. The intersection would continue to operate at level of service C during the evening peak hour in 2018 with a traffic signal in place.

The intersection of the northern driveway and Beavercreek Road will operate at level of service B during the morning peak hour and at level of service C during the evening peak hour in 2003 when the school opens. This level of service refers to traffic on the school driveway.

The results of the capacity analysis, along with the levels of service (LOS) and delay are shown in the following table. Tables showing the relationships between delay and level of service are included in the appendix to this report.

LEVEL OF SERVICE SUMMARY

Oregon City High School

Table 1 of 2

	AM Peak Hour		PM Peak Hour	
	LOS	Delay	LOS	Delay
Beavercreek Rd @ Highway 213				
Existing Conditions	E	56	F	91
2003 Background Traffic*	D	40	D	43
2003 Background + Site Trips*	D	41	D	44
2018 Conditions	-	-	F	89
Beavercreek Rd @ Loder Road				
Existing Conditions	D	26	C	18
2003 Background Traffic	D	30	C	21
2003 Background + Site Trips	F	56	D	26
2018 Conditions	-	-	E	44
Beavercreek Road @ Glen Oak Road				
Existing Conditions	C	24	D	29
2003 Background Traffic	D	28	D	34
2003 Background + Site Trips	E	36	E	37
2018 Conditions	-	-	F	115
2018 Conditions**	-	-	C	24
Highway 213 @ Glen Oak Road				
Existing Conditions	F	137	F	274
2003 Background Traffic**	C	27	C	22
2003 Background + Site Trips**	D	38	C	22
2018 Conditions**	-	-		

* With planned improvements in place
** Signalized
LOS = Level of Service
Delay = Average Delay per Vehicle in Seconds

LEVEL OF SERVICE SUMMARY

Oregon City High School

Table 2 of 2

	AM Peak Hour		PM Peak Hour	
	LOS	Delay	LOS	Delay
Beavercreek Road @ North Driveway				
2003 Background + Site Trips	B	11	C	19
2018 Conditions	-	-	C	23
Beavercreek Road @ Future Collector				
2003 Background + Site Trips	F	659	F	214
2003 Background + Site Trips*	B	16	C	21
2018 Conditions*	-	-	C	24

* Signalized
LOS = Level of Service
Delay = Average Delay per Vehicle in Seconds

SUMMARY & RECOMMENDATIONS

1. The proposed Moss Campus expansion and remodel is expected to accommodate up to 2,400 students. With this enrollment, the site will generate 1,104 trips during the morning peak hour and 360 trips during the evening peak hour. A weekday total of 4,296 trips are expected.

2. The intersection of Highway 213 and Beavercreek Road is currently failing during the evening peak hour. With the planned improvement project completed, the intersection will operate at level of service D during both peak hours. The addition of site traffic will not alter this level of service. By 2018 the intersection is expected to again be operating over capacity at level of service F.

3. The intersection of Beavercreek Road and Loder Road is expected to operate satisfactorily, except during the morning peak hour with the proposed school in place, when it will operate at level of service F. Traffic signal warrants will not be satisfied and a traffic signal is not recommended.

4. The intersection of Beavercreek Road and Glen Oak Road is expected to operate at an acceptable level of service during both peak hours for all short-term analyses. By 2018 the intersection will fail during the evening peak hour, unless a traffic signal is constructed. The intersection would operate at level of service C in 2018 with a traffic signal in place.

5. The intersection of Highway 213 and Glen Oak Road is currently operating at level of service F during both peak hours. An improvement project to realign the minor street approaches and install a traffic signal has been planned for some time but has not been implemented. With a traffic signal in place the intersection would operate at level of service C during both peak hours in 2003 without the proposed school. With the school in place the level of service would degrade to D during the morning peak hour and remain at C during the evening peak hour. The school adds a significant amount of southbound left-turns to the intersection during the morning peak hour and the existing left-turn lane would need to be extended 100 feet to accommodate the additional left-turns. By 2018 the intersection will operate over capacity. The heavy through traffic on Highway 213 necessitates widening of the highway to five lanes to achieve acceptable operation.

6. Upon completion and full occupancy of the school in 2003, a northbound left-turn lane will be warranted on Beavercreek Road at the future collector roadway intersection, from which the school will take access. Traffic signal warrants are satisfied at the collector intersection and a traffic signal is recommended. With a traffic signal in place the collector intersection will operate at level of service C or better for all scenarios examined.

7. The intersection of the northern driveway and Beavercreek Road will operate at level of service B during the morning peak hour and at level of service C during the evening peak hour as a right-turn in, right-turn out only access.

LEVEL OF SERVICE

Level of service is used to describe the quality of traffic flow. Levels of service A to C are considered good, and rural roads are usually designed for level of service C. Urban streets and signalized intersections are typically designed for level of service D. Level of service E is considered to be the limit of acceptable delay. For unsignalized intersections, level of service E is generally considered acceptable. Here is a more complete description of levels of service:

Level of service A: Very low delay at intersections, with all traffic signal cycles clearing and no vehicles waiting through more than one signal cycle. On highways, low volume and high speeds, with speeds not restricted by other vehicles.

Level of service B: Operating speeds beginning to be affected by other traffic; short traffic delays at intersections. Higher average intersection delay than for level of service A resulting from more vehicles stopping.

Level of service C: Operating speeds and maneuverability closely controlled by other traffic; higher delays at intersections than for level of service B due to a significant number of vehicles stopping. Not all signal cycles clear the waiting vehicles. This is the recommended design standard for rural highways.

Level of service D: Tolerable operating speeds; long traffic delays occur at intersections. The influence of congestion is noticeable. At traffic signals many vehicles stop, and the proportion of vehicles not stopping declines. The number of signal cycle failures, for which vehicles must wait through more than one signal cycle, are noticeable. This is typically the design level for urban signalized intersections.

Level of service E: Restricted speeds, very long traffic delays at traffic signals, and traffic volumes near capacity. Flow is unstable so that any interruption, no matter how minor, will cause queues to form and service to deteriorate to level of service F. Traffic signal cycle failures are frequent occurrences. For unsignalized intersections, level of service E or better is generally considered acceptable.

Level of service F: Extreme delays, resulting in long queues which may interfere with other traffic movements. There may be stoppages of long duration, and speeds may drop to zero. There may be frequent signal cycle failures. Level of service F will typically result when vehicle arrival rates are greater than capacity. It is considered unacceptable by most drivers.

LANCASTER ENGINEERING

TRAFFIC SIGNAL WARRANT CALCULATIONS

Major Street: Beavercreek Road Minor Street: Glen Oak Road

2003 Background Traffic

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1					
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 2					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

Warrant Used

_____ 100 percent of standard warrants used

X 70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

	Number of Lanes	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1: Minimum Vehicular Volume				
Major Street	1	12,590	6,200	
Minor Street*	2	485	2,500	No
Warrant 2: Interruption of Continuous Traffic				
Major Street	1	12,590	9,300	
Minor Street*	2	485	1,250	No
Warrant 11: Peak Hour Warrant - AM Peak Hour				
Major Street	1	974		
Minor Street*	2	86	80	Yes
Warrant 11: Peak Hour Warrant - PM Peak Hour				
Major Street	1	1,259		
Minor Street*	2	49	75	No

* Minor street right-turning traffic volumes reduced by 50 percent

LANCASTER ENGINEERING

TRIP GENERATION CALCULATIONS

Land Use: High School
Land Use Code: 530
Variable: Students
Variable Value: 1314

AM PEAK HOUR

Trip Rate: 0.46

	Enter	Exit	Total
Directional Distribution	70%	30%	
Trip Ends	423	181	604

PM PEAK HOUR

Trip Rate: 0.15

	Enter	Exit	Total
Directional Distribution	40%	60%	
Trip Ends	79	118	197

AM SCHOOL PEAK HOUR

Trip Rate: 0.42

	Enter	Exit	Total
Directional Distribution	71%	29%	
Trip Ends	392	160	552

WEEKDAY

Trip Rate: 1.79

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	1,176	1,176	2,352

Source: TRIP GENERATION, Sixth Edition

LANCASTER ENGINEERING

TRIP GENERATION CALCULATIONS

Land Use: High School
Land Use Code: 530
Variable: Students
Variable Value: 2400

AM PEAK HOUR

Trip Rate: 0.46

	Enter	Exit	Total
Directional Distribution	70%	30%	
Trip Ends	773	331	1104

PM PEAK HOUR

Trip Rate: 0.15

	Enter	Exit	Total
Directional Distribution	40%	60%	
Trip Ends	144	216	360

AM SCHOOL PEAK HOUR

Trip Rate: 0.42

	Enter	Exit	Total
Directional Distribution	71%	29%	
Trip Ends	716	292	1008

WEEKDAY

Trip Rate: 1.79

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	2,148	2,148	4,296

Source: TRIP GENERATION, Sixth Edition

LANCASTER ENGINEERING

TRIP GENERATION CALCULATIONS

Land Use: Shopping Center
Land Use Code: 820
Variable: 1000 Sq Ft Gross Leasable Area
Variable Value: 243

AM PEAK HOUR

Trip Rate: Ln(T) = 0.596Ln(X) + 2.329

	Enter	Exit	Total
Directional Distribution	61%	39%	
Trip Ends	176	113	289

PM PEAK HOUR

Trip Rate: Ln(T) = .66Ln(X) + 3.403

	Enter	Exit	Total
Directional Distribution	48%	52%	
Trip Ends	542	587	1128

WEEKDAY

Trip Rate: Ln(T) = .643Ln(X) + 5.866

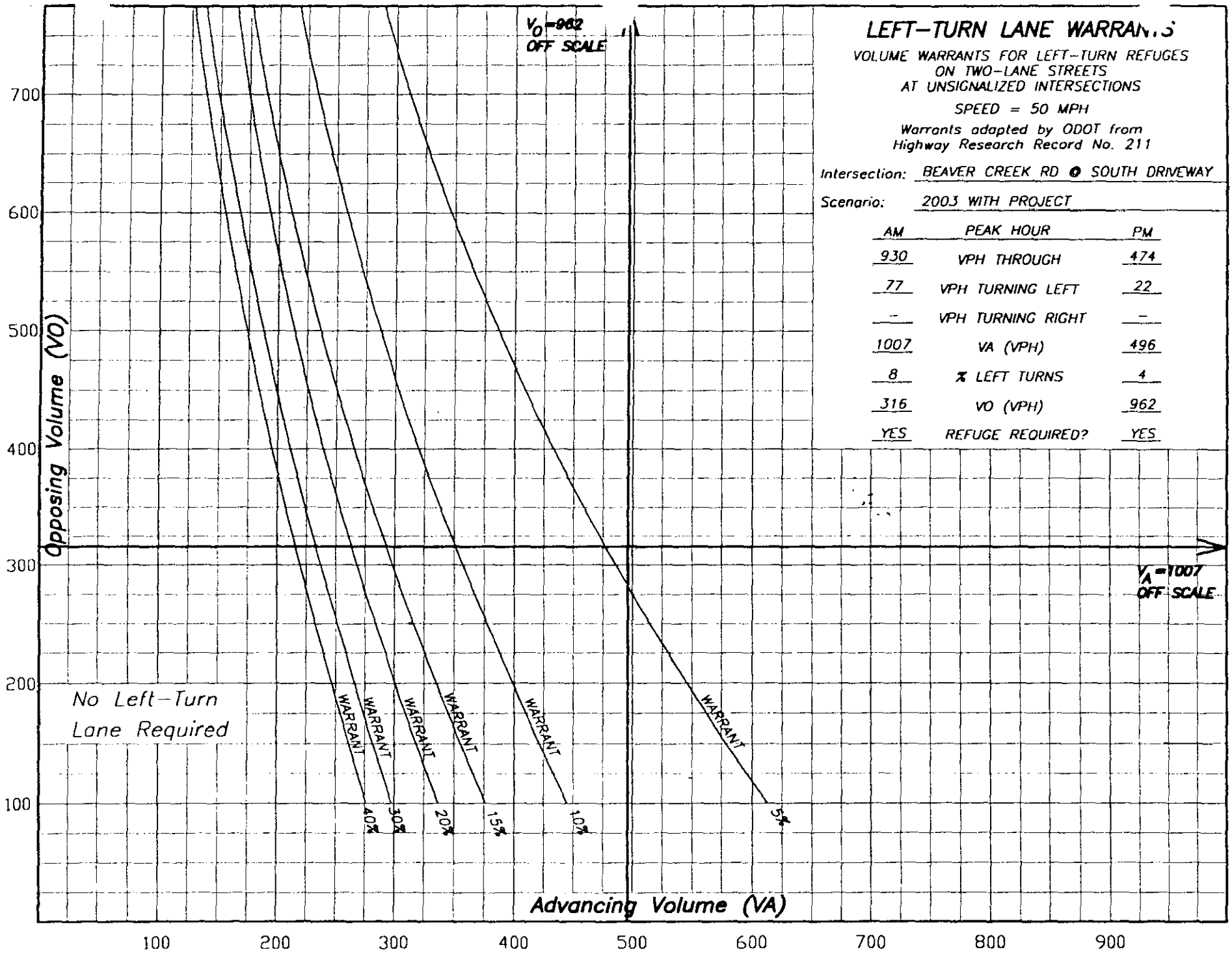
	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	6032	6032	12065

SATURDAY

Trip Rate: Ln(T) = .628Ln(X) + 6.229

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	7986	7986	15973

Source: TRIP GENERATION, Sixth Edition


LEFT-TURN LANE WARRANTS
VOLUME WARRANTS FOR LEFT-TURN REFUGES
ON TWO-LANE STREETS
AT UNSIGNALIZED INTERSECTIONS
SPEED = 50 MPH
Warrants adapted by ODOT from
Highway Research Record No. 211
Intersection: BEAVER CREEK RD @ SOUTH DRIVEWAY
Scenario: 2003 WITH PROJECT
AM | PEAK HOUR | PM
930 | VPH THROUGH | 474
77 | VPH TURNING LEFT | 22
- | VPH TURNING RIGHT | -
1007 | VA (VPH) | 496
8 | % LEFT TURNS | 4
316 | VO (VPH) | 962
YES | REFUGE REQUIRED? | YES
V_O=962
OFF SCALE
V_A=1007
OFF SCALE
Opposing Volume (VO)
Advancing Volume (VA)
100
200
300
400
500
600
700
800
900
No Left-Turn
Lane Required
WARRANT
40%
30%
20%
15%
10%
5%

LANCASTER ENGINEERING

TRAFFIC SIGNAL WARRANT CALCULATIONS

Major Street: Beavercreek Road Minor Street: Glen Oak Road

2018 Conditions

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1					
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 2					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

Warrant Used

_____ 100 percent of standard warrants used

X 70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

	Number of Lanes	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1: Minimum Vehicular Volume				
Major Street	1	17,150	6,200	
Minor Street*	2	975	2,500	No
Warrant 2: Interruption of Continuous Traffic				
Major Street	1	17,150	9,300	
Minor Street*	2	975	1,250	No
Warrant 11: Peak Hour Warrant - AM Peak Hour				
Major Street	1	-		
Minor Street*	2	-	-	-
Warrant 11: Peak Hour Warrant - PM Peak Hour				
Major Street	1	1,715		
Minor Street*	2	98	75	Yes

* Minor street right-turning traffic volumes reduced by 50 percent

LANCASTER ENGINEERING

TRAFFIC SIGNAL WARRANT CALCULATIONS

Major Street: Beavercreek Road Minor Street: South Driveway

2018 Conditions

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1					
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 2					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

Warrant Used

_____ 100 percent of standard warrants used

X 70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

	Number of Lanes	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1: Minimum Vehicular Volume				
Major Street	1	17,820	6,200	
Minor Street*	1	910	1,850	No
Warrant 2: Interruption of Continuous Traffic				
Major Street	1	17,820	9,300	
Minor Street*	1	910	950	No
Warrant 11: Peak Hour Warrant - AM Peak Hour				
Major Street	1	-		
Minor Street*	1	-	-	-
Warrant 11: Peak Hour Warrant - PM Peak Hour				
Major Street	1	1,782		
Minor Street*	1	91	75	Yes

* Minor street right-turning traffic volumes reduced by 25 percent

LANCASTER ENGINEERING

TRAFFIC SIGNAL WARRANT CALCULATIONS

Major Street: Beavercreek Road Minor Street: Glen Oak Road

2003 Background + Site Trips

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1					
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 2					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

Warrant Used

_____ 100 percent of standard warrants used

X 70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

	Number of Lanes	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1: Minimum Vehicular Volume				
Major Street	1	23,790	6,200	
Minor Street*	1	1,170	1,850	**No**
Warrant 2: Interruption of Continuous Traffic				
Major Street	1	23,790	9,300	
Minor Street*	1	1,170	950	**Yes**
Warrant 11: Peak Hour Warrant - AM Peak Hour				
Major Street	1	1,940		
Minor Street	1	167	75	**Yes**
Warrant 11: Peak Hour Warrant - PM Peak Hour				
Major Street	1	2,379		
Minor Street	1	117	75	**Yes**

LANCASTER ENGINEERING
Traffic Studies • Planning • Safety

April 25, 2001

Jeff Houle
Milstead and Associates
10121 SE Sunnyside Road, Suite 335
Clackamas, OR 97015

Dear Jeff:

Following recent conversations with Joe Marek at Clackamas County regarding the Oregon City High School project, we have compiled some additional analysis and information. The following items were requested by Joe and are addressed directly in this letter:

- Preliminary design of the right-in, right-out driveway near the school's northerly property line.
- Potential need for a right-turn or deceleration lane at one or both of the school driveways.
- Daily volume profile for the school, including off-peak periods.
- Impacts to vehicle queuing of retaining trees in the median of the Meyers Road extension at Beavercreek Road.

In addition to these items, I have attached a final version of our April 16, 2001 letter addressing the distribution of school traffic with the near-term completion of the Meyers Road extension between Highway 213 and Glen Oak Road.

Right-In, Right-Out Driveway

Joe Marek has indicated that he would like to see a "porkchop" treatment to restrict left-turning movements at the northern driveway rather than installing a raised median in Beavercreek Road. Compass Engineering has prepared a preliminary design for this treatment, which is attached to this letter. As discussed in the following section, the drawing includes a southbound right-turn/deceleration lane within the existing right-of-way. Please keep in mind the design of the access is very preliminary and may require some minor modifications to improve its operation. Also attached to this

EXHIBIT 46

LANCASTER ENGINEERING

letter is a preliminary design from Compass Engineering for the lane configurations along the entire site frontage.

Southbound Right-Turn/Deceleration Lane

Due to the large volume of southbound traffic turning right into the school, the posted speed of 50 mph on Beavercreek Road, and the presence of school buses during the peak hours, a southbound right-turn/deceleration lane is recommended at the northern driveway.

The preliminary design done by Compass Engineering for the northern access includes the southbound turn lane at the driveway, but does not show the required storage and taper lengths. We have calculated a recommended design based primarily upon ODOT Standard Drawing RD222, *Right Turn Channelization*. According to ODOT standards, the turn lane should have a storage length of approximately 56 feet, and a taper that would be 144 feet in length (12 foot right-turn lane at a taper rate of 12:1). This equates to an overall length, including taper, of 200 feet. However, because of the significant volume of school buses making the right turn, we recommend a storage length of at least 106 feet, resulting in an overall length of 250 feet.

Daily School Traffic Profile

Detailed information on the morning and evening peak hour trip generation of the school is available in the traffic impact study, but Joe Marek would like additional information regarding off-peak school activities and traffic volumes. This information will be useful to him in examining the operation of the proposed traffic signal at the intersection of the Meyers Road extension at Beavercreek Road.

The following information was supplied by Jeff Davis, the Assistant Principal in charge of athletic activities for the Oregon City School District. This information is intended to serve as a subjective measure of school activity, and resulting traffic activity, during off-peak periods.

With the construction of a public school of this size, a multitude of events are planned after school hours and on weekends. For example, in the Fall there are practices for volleyball, cross county, football, and soccer that all take place at various times after school hours five days a week. These practices can involve as many as 300

LANCASTER ENGINEERING

students, all sports combined. Activities such as basketball and volleyball tournaments, which can attract as many as 500 attendees, are held frequently on Saturdays, and open gym activities are often held on Sundays. Similar sporting events and practices are held during Spring and Winter seasons as well. Other activities not related to athletics, such as adult night classes and a regularly scheduled "Parent Forum", open to all parents of high school students, are expected.

Meyers Road Extension Queuing

Compass Engineering has indicated that they are no longer planning on retaining the trees in the center of the Meyers Road extension. Therefore there will be no physical barrier to traffic queues on Meyers Road.

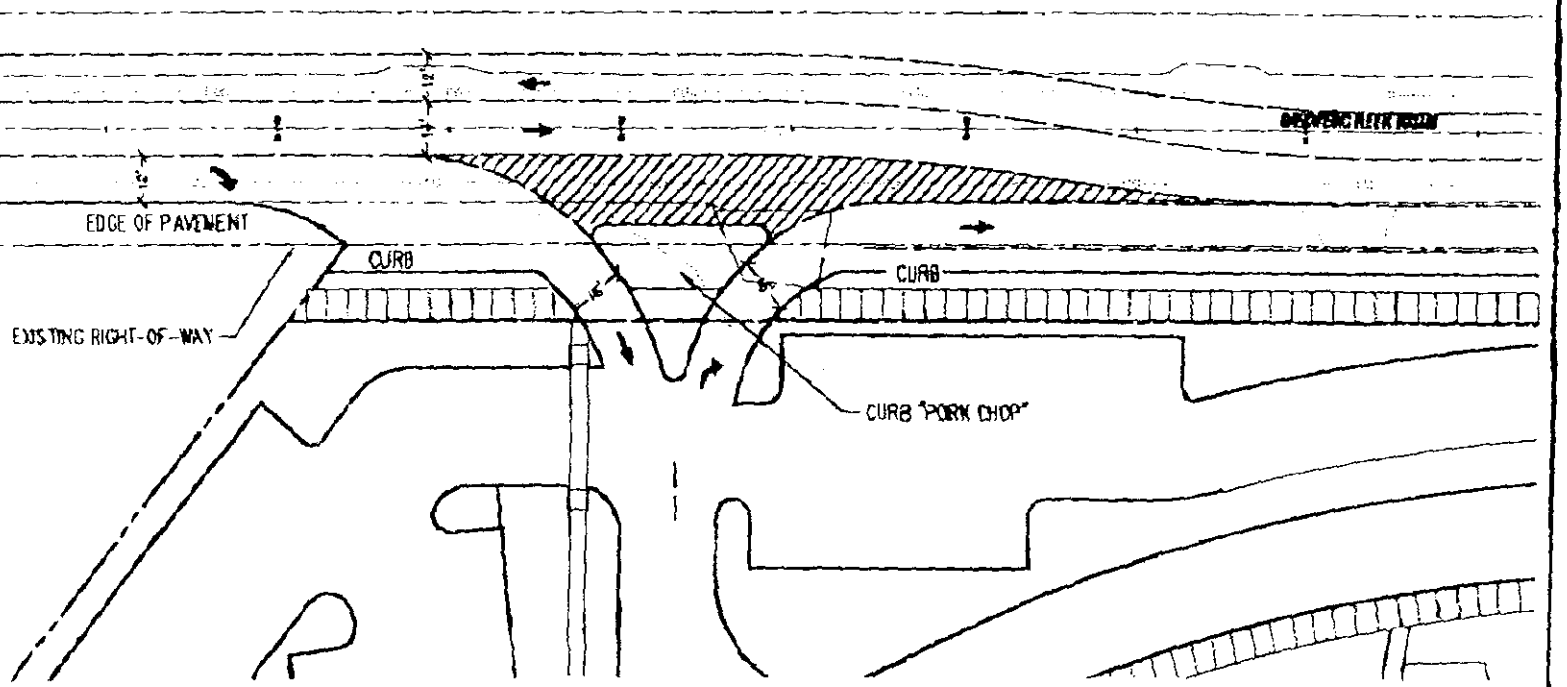
If you have any questions or need any further information, please don't hesitate to call.

Yours truly,

Todd E. Mobley, EIT
Senior Transportation Analyst

attachments: Beavercreek Road drawings from Compass, 3 pages total
April 16, 2001 letter w/ attachments, 5 pages total

BEAVERCREEK ROAD



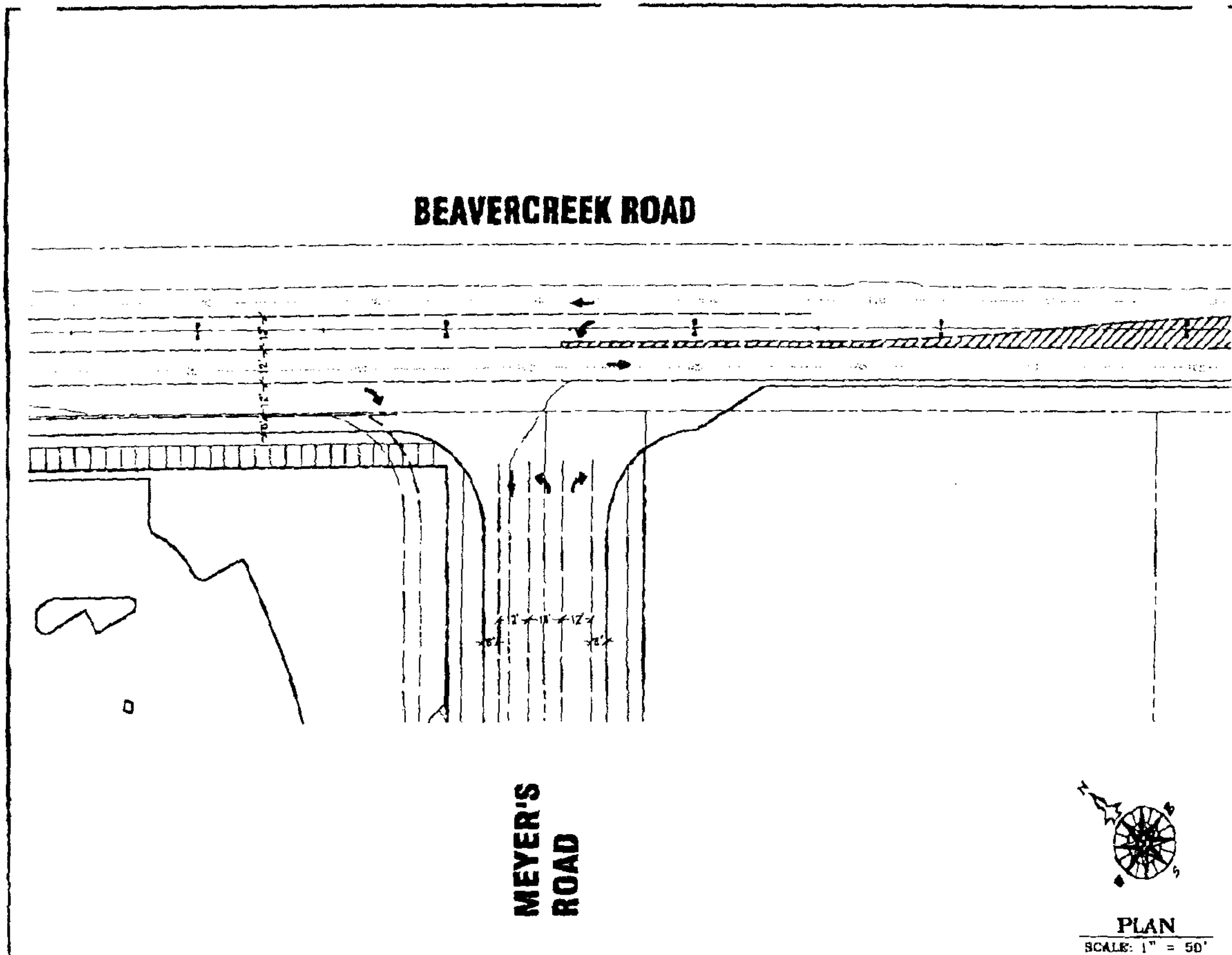
PLAN
SCALE: 1" = 50'

COMPASS ENGINEERING
ENGINEERING ▲ SURVEYING ▲ PLANNING

MILSTEAD & ASSOCIATES

BEAVERCREEK IMPROVEMENTS
CLACKAMAS COUNTY, OREGON

1
3



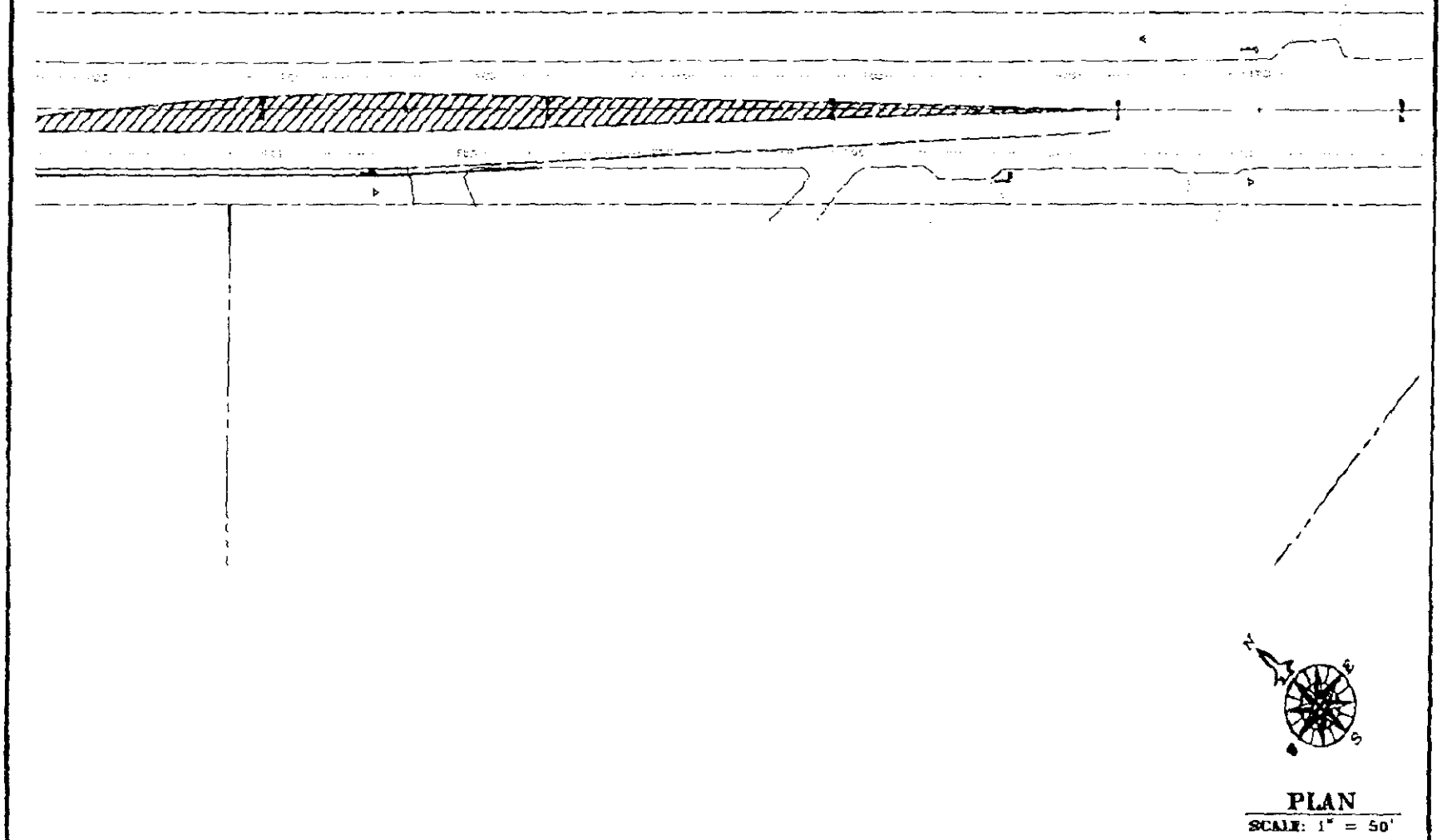
COMPASS ENGINEERING
ENGINEERING ★ SURVEYING ★ PLANNING

MILSTEAD & ASSOCIATES

BEAVERCREEK IMPROVEMENTS
CLACKAMAS COUNTY, OREGON

2
3

BEAVERCREEK ROAD



PLAN
SCALE: 1" = 50'

COMPASS ENGINEERING
ENGINEERING ★ SURVEYING ★ PLANNING

MILSTEAD & ASSOCIATES

BEAVERCREEK IMPROVEMENTS
CLACKAMAS COUNTY, OREGON

3
3

LANCASTER ENGINEERING
Traffic Studies • Planning • Safety

April 16, 2001

Jeff Houle
Milstead and Associates
10121 SE Sunnyside Road, Suite 335
Clackamas, OR 97015

Dear Jeff:

We have completed a minor revision to the traffic impact study for the Oregon City High School. At your request, we have analyzed the school's contribution to traffic volumes on Glen Oak Road with the Meyers Road extension in place from Highway 213 on the west to Beavercreek Road on the east.

According to the *Trip Generation* section on page 10 of the original report, the school is expected to generate 4,296 daily trips. The trip distribution figure on page 13 shows that a total of 39 percent of these trips are expected to use Glen Oak Road. This equates to 1,675 daily trips on Glen Oak Road. The original report *did not* assume the Meyers Road extension to be in place, and it also assumed a direct connection from the site to Glen Oak Road.

The above mentioned trip distribution figure from the original report shows that the 39 percent of the site trips are comprised of 31 percent from the north of Highway 213, two percent from the south of Highway 213, and six percent local traffic along Glen Oak Road. With the Meyers Road extension in place, the 31 percent (1,332 trips) from the north on Highway 213 will transfer to Meyers Road. Clearly, this extension will be a more attractive route for school traffic coming from the north and west rather than traveling south on Highway 213 to Glen Oak, then back-tracking to the north to reach the school. Also, a significant portion of the 31 percent is expected to be from Meyers Road west of Highway 213.

With 31 percent of the school traffic now on the Meyers Road extension, Glen Oak Road is expected to carry only eight percent of the site trips (344 trips). Of this eight percent, 258 trips, or six percent, is expected to be local traffic from residential areas along Glen Oak Road and may have relatively short trip lengths.

LANCASTER ENGINEERING

The following table shows a summary of the school traffic volumes on Glen Oak and the Meyers Road extension for the old and new scenarios.

OREGON CITY HIGH SCHOOL
Daily Site Trip Assignment Summary

	Glen Oak Road Traffic	Meyers Road Extension
Original Report		
From 213 North (31%)	1,332	-
From 213 South (2%)	86	-
Local Traffic (6%)	258	-
TOTAL:	**1,676**	-
With Meyers Extension Complete		
From North & West (31%)	-	1,332
From 213 South (2%)	86	-
Local Traffic (6%)	258	-
TOTAL:	**344**	**1,332**

Note: All volumes shown are daily trips

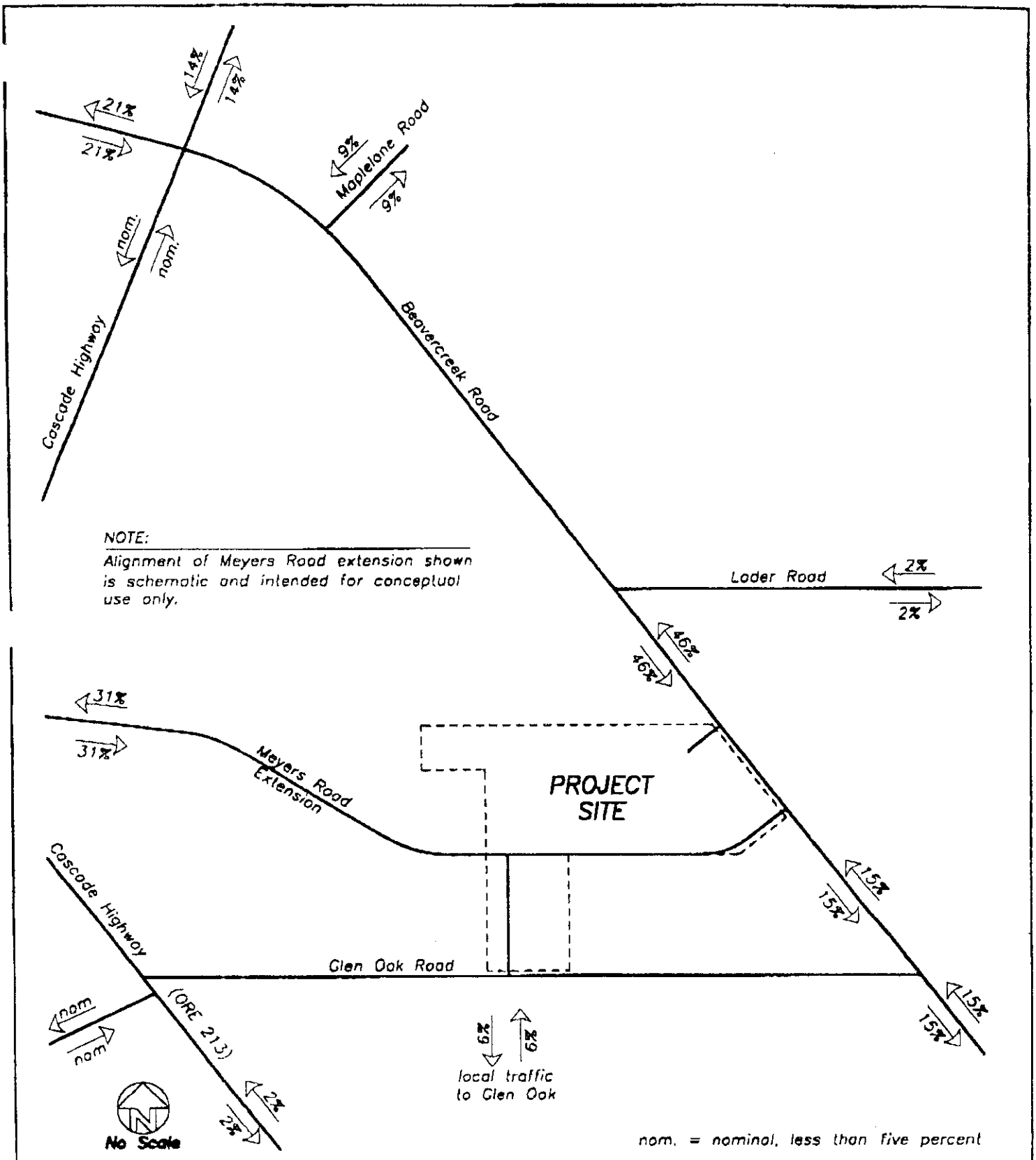
As shown in the table above, the school's contribution of traffic to Glen Oak Road would be approximately 80 percent less with the Meyers Road extension in place. Figures showing the trip distribution percentages both from the original report and from this revised analysis are attached to this letter.

LANCASTER ENGINEERING

Please feel free to call if you have any questions regarding this analysis or if you need any further information.

Yours truly,

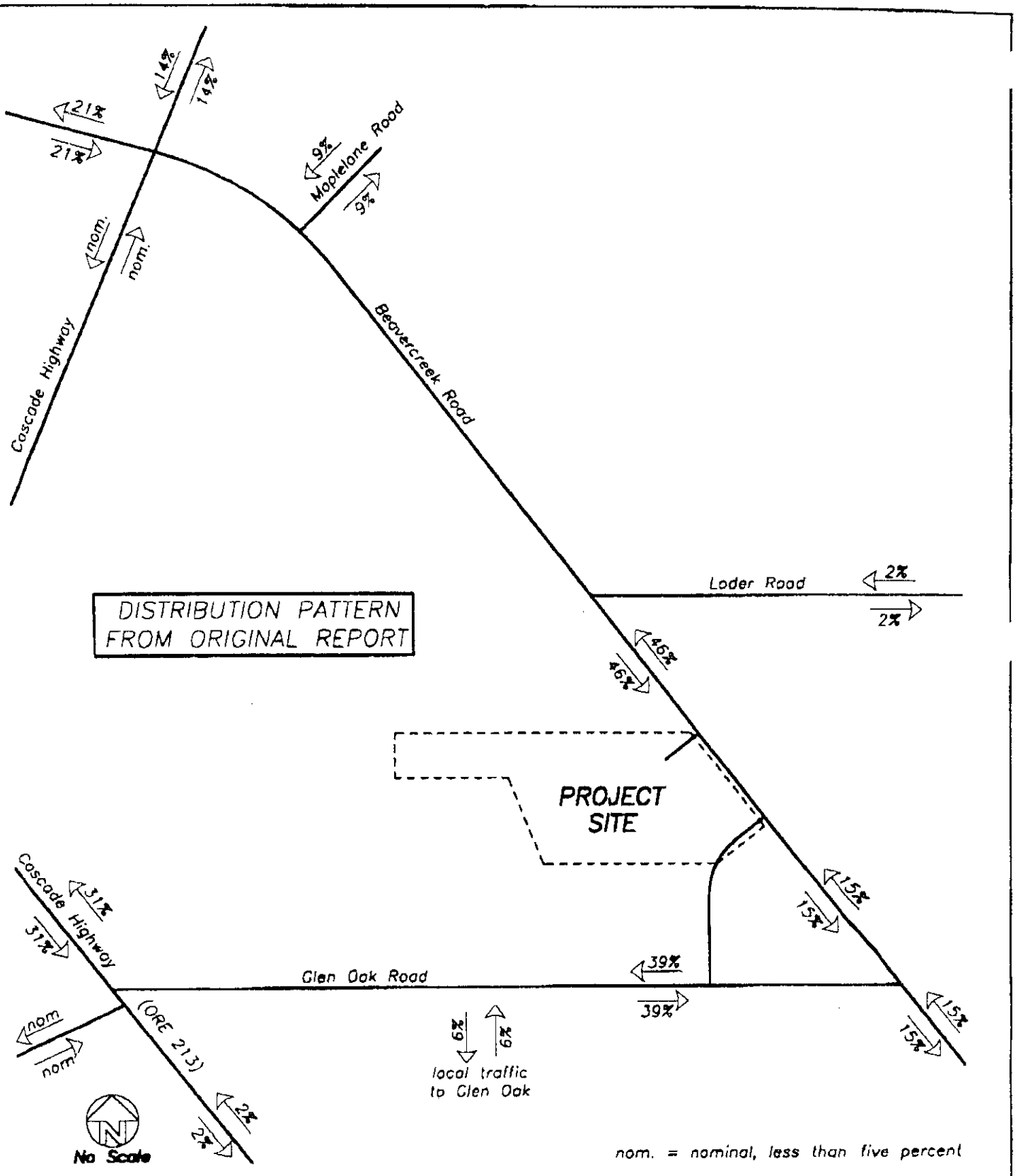
Todd E. Mobley, EIT
Senior Transportation Analyst



LANCASTER ENGINEERING

SITE TRIP DISTRIBUTION
Inbound & Outbound Percentages
AM & PM Peak Hours

ochigh.dwg



LANCASTER ENGINEERING

SITE TRIP DISTRIBUTION
Inbound & Outbound Percentages
AM & PM Peak Hours

ochigh.dwg

ANALYSIS AND FINDINGS1

The Oregon City School District No. 62 proposes to convert their existing Moss Campus, currently being used for ninth grade only, to a full four-year high school and athletic fields. The Moss Campus is located at 19751 Beavercreek Road. The applicant proposes to demolish a small portion of the existing building and remodel the rest. The applicant proposes to build approximately 146,369 square foot (footprint) of additions with additional athletic facilities. The various properties are currently zoned R-8 and R–10, CI, and two future annexations will be zoned R-10. The properties are surrounded by CI, R-10, and R-8 zoning.

The proposed site layout will use the existing Moss Campus ingress/egress on Beavercreek Road and add an additional northerly ingress/egress on Beavercreek Road. In addition, there will be an additional ingress/egress to the west from the new Meyers Road extension and a local street from this Meyers Road extension south to Glen Oak Road. Overall, the applicant reports a total of 68.00 acres available for the new facilities and athletic fields, parking and circulation, and landscaping space.

The proposed site is large enough to adequately accommodate the proposed infrastructure.

The shape is conducive to the placement and functioning of the proposed use.

Given the existing Moss Campus, the existing use of this site for this type of use blends with other residential uses in the area.

There is a 15-inch (lined 16-inch) City water line in Beavercreek Road and a 16-inch waterline in Glen Oak Road.

An 8-inch City sanitary sewer line can serve the site from Glen Oak Road. The current campus buildings are served by a private 8-inch sanitary sewer line going north to a manhole near the Clackamas Community College entrance on Beavercreek Road. If the applicant ;chooses to continue using that private line, it will need to be upgraded to meet city standards.

Beavercreek Road is classified as a Minor Arterial in the Oregon City Transportation Master Plan, which requires a minimum right-of-way (ROW) width of 60 to 80 feet. Beavercreek Road appears to have a 60-foot wide ROW. Beavercreek Road is a County Road and under Clackamas County's jurisdiction. Glen Oak Road is classified as a Collector in the Oregon City Transportation Master Plan, which requires a minimum right-of-way (ROW) width of 60 to 70 feet. Glen Oak Road has a 50-foot wide ROW.

The applicant shall be required at the Site Plan and Design Review stage to improve their site's frontage along Beavercreek Road and Glen Oak Road to the City's Minor Arterial and Collector standards, respectively, which will include and not be limited to sidewalks and street trees.

The site is relatively flat with a gentle slope toward the west/southwest and will require minimal grading. The existing improvements will not restrict the proposed use.

A traffic study has been provided to the City for review. The city sent several letters to the applicant requesting additional information and corrections that still not been adequately addressed by the applicant (see city traffic consultant's letter from John Replinger, DEA). This large-scale increase in

site usage will greatly impact the surrounding City and County roads and streets. Several major items still have not been adequately addressed to determine the full extent of the impact. The city and Oregon City School District have signed a Letter of Understanding (LOU) concerning the Meyers Road extension that will serve the school site while meeting the city's 1989 Transportation Master Plan for the additional collector road serving the properties between Glen Oak Road and the college and between Beavercreek Road and Highway 213. The LOU describes the parameters of the agreement whereby the school district will dedicate certain property, construct certain portions of the Meyers Road extension and construct the local street between Glen Oak Road and the Meyers Road extension.

The transportation impacts of this application are far reaching and must be accurately determined before a conditional use is issued, although, the actual conditions of approval for the Site Plan and Design Review can be used to require the applicant to construct certain requirements. The applicant's analysis of Beavercreek Road for acceleration/deceleration lanes, queuing/stacking distances for turn lanes, and right-in/right-out designs must be completed before Site Plan and Design Review. On-site circulation plans must be reviewed to ensure adequate stacking and clear out lanes are provided to alleviate off-site stacking beyond the design length.

Conditions:

1. The Applicant is responsible for this project's compliance to Engineering Policy 00-01 (attached). The policies pertain to any land use decision requiring the applicant to provide any public improvements.
2. The Applicant shall sign a Non-Remonstrance Agreement for the purpose of making sanitary sewer, storm sewer, water or street improvements in the future that benefit the Property and assessing the cost to benefited properties pursuant to the City's capital improvement regulations in effect at the time of such improvement.

H:\WRDFILES\DEAN\STAFFRPT\CU\CU01-01.DOC

April 27, 2001 - Preliminary

Ms. Barbara Shields
Planning Department
City of Oregon City
PO Box 3040
Oregon City, OR 97045

SUBJECT: REVIEW OF TRAFFIC IMPACT STUDY
OREGON CITY HIGH SCHOOL – CU 01-01 & VR 01-01

Dear Ms. Shields:

In response to your request, David Evans and Associates, Inc. has reviewed the traffic impact study (TIS) submitted for the Oregon City High School in the City of Oregon City. The TIS was prepared by Todd Mobley and Tom R. Lancaster, PE of Lancaster Engineering. The TIS addresses the proposed construction of a high school that abuts Beavercreek Road and lies to the north of Glen Oak Road. The TIS is supplemented by a November 2, 2000 letter to Marc Bevens; an April 16, 2001 letter to Jeff Houle; and an April 25, 2001 letter to Jeff Houle.

The applicant has not adequately addressed transportation impacts of the proposed high school. The two principal concerns are the lack of attention to all modes transportation and the applicant's failure to provide sufficient information on the vehicular traffic impacts. The lack of adequate traffic information may lead to the possibility that the city staff could craft conditions of approval that may prove more burdensome than would conditions based on more complete information.

The following information should be provided by the applicant in a new or supplemental TIS:

1. Site specific trip generation information should be provided by the applicant to validate the figures cited from ITE *Trip Generation*. I recommend that the applicant provide actual driveway traffic count information to verify that the ITE trip generation rates are appropriate.

2. The applicant's analysis of future year conditions is inadequate. The traffic volumes assumed on Glen Oak Road are far lower than are likely to occur with buildout of the residential areas to the south of Glen Oak Road. The applicant should provide further analysis and justification for the peak hour numbers cited for the year 2018 base condition.

3. Address the traffic impacts during the afternoon peak hour of the school operation. This is in addition to the AM and PM peak hours that have already been addressed. This information is

EXHIBIT 56

necessary to help judge whether or not the 4-hour and 8-hour signal warrants will be met at one or more intersections.

4. Address the traffic impact of "events." With the completion of items above, the applicant will have addressed the traffic impacts of the school operations. What is missing is the impact of events. It appears the district is proposing a major sports complex with lighting for several fields. The facility is also proposed to house a 550-seat theater. The applicant should address the impact of the largest event regularly conducted at the facility. I suggest the district and its consultants should define the design event. I think it need not address the impact of an extraordinary once per year event, but rather a regularly occurring event. That may be five simultaneous baseball games, the regular Friday night football games, regular basketball games that fill the 2400-seat gymnasium, or a full house at the theater. If the district and its consultants are unable to justify a single design event, I suggest they individually address each of the following: a) simultaneous use of all athletic fields including attendance by spectators; an event that fills the theater; b) an event that fills the gymnasium; and c) an event that fills the stands at a football game. The event analyses should address traffic entering and exiting the facility including a traffic control plan if such is necessary to meet city standards for intersection level of service standards. The general information on activities described as "Daily School Traffic Profile" in the April 25, 2001 letter does not provide enough information on off-peak school activities. A quantitative analysis is needed.

5. The applicant should provide enough information on its traffic operations plan that the city can evaluate the impact on the city streets and on the neighbors. Specifically, the operations plan should address the concept proposed by the district for school day operation of the gates shown in the site plan. Also, address the use of the gated access for the athletic fields and events. Without such information, the city needs to assume a worst case traffic impact on nearby intersections that may require mitigation measures such as the addition of turn lanes to provide an adequate level of service as defined by the Transportation System Plan.

6. The applicant should address sight distance at access points, queue storage requirements, and the possibility of deceleration lanes on Beavercreek Road and any other access point on the city's or county's street network. The April 25, 2001 letter does provide some information and a recommendation for the right-turn/deceleration lane at the north access. Similar analyses and documentation are needed at other locations.

7. The applicant needs to address all modes of transportation and the manner in which the district's plan is helping the city to comply with Oregon's Transportation Planning Rule (OAR 660-012). The applicant has not provided adequate information about pedestrian activity, bicycling, or public transit. The Transportation Planning Rule (TPR) is designed to promote alternative modes of travel. It is inadequate to state that such uses are minimal.

Definitive plans are needed to show how such would be encouraged. Note that the TPR specifically mentions the need for on-site facilities "which accommodate safe and convenient pedestrian access from within new subdivisions, multi-family developments,...and two neighborhood activity centers within one-half mile of the development." The TPR further defines neighborhood activity centers to include existing or planned schools and transit. The applicant should address pedestrian activity between the school and the community college, nearby subdivisions (on both sides of Glen Oak Road) and transit stops on nearby roadways, including Bevercreek Road. The provision of sidewalks along Glen Oak Road and Beavercreek Road to provide adequate pedestrian safety could also be a condition of approval.

8. The applicant should make clear what mitigation measures it is proposing to undertake to ensure that the transportation facilities are adequate for the proposed development. For example, the TIS indicates the need for traffic signals at two intersections (the intersection of Beavercreek Road and the school driveway/collector road, and the intersection of Glen Oak Road and Highway 213). The TIS also indicates a need for more queue storage on Highway 213 at Glen Oak Road. Lacking further information, the conditions of approval for the school will likely include construction of turn lanes and installation of signals at the intersections of Glen Oak Road with Highway 213 and with Beavercreek Road.
9. The applicant needs to provide more information on the planning that the district has conducted to ensure the adequacy of its internal circulation. This is important to the city to ensure that on-site problems do not adversely impact the city's streets. If inadequate capacity is provided for traffic movements entering and exiting the site, dangerous stacking on city streets could result. Unless the applicant can show that such issues have been dealt with on-site, additional deceleration lanes or turn lanes might be required as conditions of approval.
10. To help reduce the transportation impacts of the school, a transportation demand management plan may be needed. This might have the effect of reducing the mitigation measures such as the construction of turn lanes or the lengthening of queue storage at intersections.
11. The district may also need to update its Employee Commute Options program required under the rules of the Department of Environmental Quality. Such measures may also help to mitigate the transportation impact of the school expansion.

In conclusion, I find that the applicant's traffic impact study fails to meet the City's requirements. The school will have a significant impact on the transportation system. At least two intersections will need to be signalized and some roads will need to be improved and

widened to safely accommodate the major increase in transportation activity caused by the school. The applicant needs to provide more information so that the city can judge the adequacy of the mitigation measures that will be needed. Lacking such information, the city will have to estimate the impacts based on what information has been provided and assume a worst case scenario that could lead to street and intersection construction projects as conditions of approval.

If you have any questions or need any further information concerning this review, please call me at 223-6663.

Sincerely,

DAVID EVANS AND ASSOCIATES, INC.

John Replinger, PE
Senior Transportation Engineer

JGRE:jr
o:\project\o\orc10009\correspo\CU01-01.doc

Oregon
John A. Kitzhaber, M.D., Governor

Department of Transportation
Region 1
123 NW Flanders
Portland, OR 97209-4037
(503) 731-8200
FAX (503) 731-8259

FILE CODE:

April 27, 2001

PLA9-1-2B-ORE-160
Proposal Number:

City of Oregon City
PO Box 3040
Oregon City, OR 97045-0304

Attn: Barbara Shields, Sr. Planner

Subject: CU 01-01, VR 01-01: Oregon City High School - Moss Campus

Dear Ms. Shields,

We have reviewed the applicant's proposal for the consolidation of the Oregon City High School at an expanded Moss Campus site. There remain outstanding issues regarding the timing and funding of transportation improvements to support the proposed conditional use. We hope to meet with Oregon City staff, Clackamas County staff and the applicant soon to explore solutions that will ensure that public facilities can be made adequate to support the development. The applicant will need to provide additional information before we can make a final recommendation to the Planning Commission regarding this proposal.

We do not support the requested reduction in bicycle parking because of the vehicular trip reduction that bicycle commuting provides. We recommend that a condition of approval be included that requires the applicant to implement a transportation demand management program. Strategies to reduce single occupancy car commuting include: prohibiting sophomores and juniors from driving; the District providing school buses or vans; preferential carpool parking spaces; an on-line carpool matching service; recognition-award program for students who take transit, bike or carpool; scheduling class and event start/end times outside of the peak hours, and free or discount transit passes, etc.

A review of the Lancaster traffic impact analysis by Kate Freitage, Traffic Analyst, ODOT, Region 1 is attached. Ms. Freitag identifies additional study requirements necessary to determine mitigation and project timing. We recommend that the consultant contact Ms. Freitag at (503) 731-8220 to discuss the methodology and scope of the analysis required by ODOT.

Sincerely,

Sonya Kazen
Sonya Kazen,
Development Review

cc: Loretta Kieffer, Kate Freitag, ODOT

EXHIBIT 5c

Date: April 26, 2001

To: Sonya Kazen, Development Region, ODOT Region 1

From: Kathleen Freitag, Traffic, ODOT Region 1

Subject: **Oregon City High School, Moss Campus**
CU 01-01 and VR 01-01

Upon reviewing the Traffic Impact Study (TIS) for the Oregon City High School Moss Campus remodeling and expansion (completed by Lancaster Engineering, October 2000), I have the following comments.

As noted in the TIS, the Oregon Department of Transportation has classified OR 213 as a District Urban highway through the study area. At the intersection of Beavercreek Road, the highway is a seven-lane facility. Just south of Meyers Road, the highway narrows to three lanes. Therefore, at Glen Oak-Caufield Road, the highway is only a three-lane facility. This differs from the following statement, which is quoted from page 5 of the TIS: "In the project study area the highway is a five-lane facility." The speed limit on the highway within the study area is 55 mph. The intersection of the highway with Beavercreek Road is signal-controlled. The intersection of Glen Oak Road-Caufield Road and OR 213 is two-way stop-controlled, with the highway free flowing. Glen Oak and Caufield are offset from one another. ODOT's mobility standard for OR 213 is 0.99 volume to capacity (v/c) in this Metro Corridor. The analysis results in the Lancaster study were not presented in v/c ratios, as required for state facilities by the *Oregon Highway Plan.*

The proposed development is a conditional use under the existing zoning. According to the TIS, expansion of the school would generate fewer PM peak and weekday trips than if it were to be developed with a shopping center and houses, as allowed by the existing zoning. Morning peak hour trips would be greater. However, the TIS does not compare trip generation rates for the additional 18.34 acres currently being annexed which will be included in the campus development which makes the comparison rates questionable.

We concur that the calculated volumes given in the TIS appear to be appropriate for the anticipated enrollment of 2,400 students,

The proposal in question would generate an increase in volume at the intersection of OR 213-Beavercreek Road as well as the intersection of OR 213-Glen Oak Road. The intersection of OR 213-Beavercreek is currently failing during the PM peak hour. Improvements for this intersection are identified in the 2000-2003 STIP and programmed for 2003. Once the improvements have been completed, it is anticipated that the intersection will operate at Level of Service (LOS) D during both peak hours. This project will also add bicycle lanes on Beavercreek Road, improving safety and accessibility for bicyclists.

As identified in both the TIS and the Oregon City Transportation System Plan (TSP), the intersection of Glen Oak Road-Caufield Road and OR 213 is currently operating at LOS F during both peak hours. With the installation of a traffic signal, in 2003 the intersection would operate at LOS C during both peak periods without the addition of the

school. With the school in operation, the intersection would operate at LOS D during the AM peak hour and LOS C during the PM peak hour. The TIS identifies the need for a signal, realignment of Glen Oak and Caufield Roads, extension of the existing left-turn lane on the highway, and widening of the highway to five lanes. The TIS does not indicate who would be responsible for these improvements. The Oregon City TSP identifies these improvements as being needed in the 6-20 year horizon; the Regional Transportation System Plan does not include these improvements, and they are not programmed in the STIP or in the City's CIP. There needs to be additional discussion regarding the timing/funding of the OR 213-Glen Oak-Caulfield Road improvements.

The Oregon City TSP as well as recent correspondence from Lancaster Engineering identifies the extension of Meyers Road as a potential improvement. It is my understanding that the City of Oregon City and the Oregon City School District have entered into an agreement for the funding of that extension. According to the April 16, 2001 correspondence from Todd Mobley of Lancaster Engineering to Jeff Houle of Milstead and Associates, the Meyers Road extension is anticipated to redistribute the majority of the site traffic that the TIS assigned for Glen Oak Road. The TIS originally planned for 1,676 vehicles to use Glen Oak Road as their route to and from the high school. The April 16 correspondence and amendment to the TIS anticipates that 1,332 of those vehicles will use the Meyers Road extension, with the remaining 344 vehicles still using Glen Oak Road. Without the extension completed, however, the 1,676 vehicles originally anticipated to use Glen Oak Road would have to use that intersection. Therefore, it should be a condition of approval that the Meyers Road extension be completed by the time the new school opens.

In conclusion, one of following two roadway projects need to be completed prior to the opening of the expanded Moss Campus: 1) improvements to the intersection of Glen Oak Road at OR 213 (signalization, re-alignment of Glen-Oak-Caulfield Roads and extension of the left-turn lanes) or the completion of Meyers Road extension.

In order for ODOT to provide a more in-depth review of this application, Lancaster Engineering will need to provide volume to capacity data. Additional analysis may be required based on our discussions regarding the timing of planned improvements.

Memorandum

TO: Barbara Shields -- City of Oregon City Planning

FROM: Joseph Marek, PE, PTOE
Traffic Engineer & Development Review Manager
Robert Hixson, Traffic Engineering Robert Hixson

DATE: April 27, 2001

RE: CU01-01 & VAR 01-01, Conditional Use,
Oregon City High School, Moss Campus
Located on Beavercreek Road, County Road Maintenance No. 52033
T3S., R2E., Section 9 D, Tax Lots 500, 600, 1300, 1200

The Traffic Engineering section has reviewed this application submittal including new information submitted on April 26, 2001 and have the following comments and recommendations:

Facts and Findings:

1. The subject properties are located adjacent to the westerly side of Beavercreek Road north of Glen Oak Road within the Urban Growth Boundary and within the city limits of Oregon City. Beavercreek Road is classified as a minor arterial roadway and is under the jurisdiction of Clackamas County. Clackamas County has adopted roadway standards that pertain to the structural section, construction characteristics and access standards for minor arterial roads.

2. This portion of Beavercreek Road is listed as a planned bicycle facility in the *Bicycle Master Plan 1996*. Currently, Beavercreek Road has minimum six (6) foot wide shoulders on both sides of the road. Minimum six (6) foot wide shoulder/bike lanes shall be maintained. In addition, this portion of Beavercreek Road is within the Urban Growth Boundary and will require sidewalks and possible landscaped strips based on City of Oregon City requirements.

3. *Clackamas County's Roadway Standards* indicate that five (5) lane minor arterial roads shall have a minimum right-of-way width of 100 feet with five (5) foot wide sign, slope, utility, and sidewalk easements on each side of the roadway. The applicant has proposed construction of curbs at a location to facilitate a future five-lane section. Details of the actual road configuration will be settled as part of Design Review. In order to facilitate a five-lane section, a minimum ½ street right-of-way width of 45 feet is necessary based on a seven (7) foot wide sidewalk and no landscape strip. Thus, this right-of-way width may increase based on City of Oregon City standards. Generally, the five lane sections consist of 12-foot wide travel lanes, 14-foot turn lanes and six (6) foot wide bike lanes.

4. The applicant has proposed the construction of a High School with frontage on Beavercreek Road and access to Beavercreek Road. Under City of Oregon City requirements, frontage improvements are a requirement. Designs on Roadways under County jurisdiction shall comply with *Clackamas County Roadway Standards*, in cooperation with City of Oregon City.

5. The applicant has proposed a right-in/right-out driveway at the north end of the site. Designs submitted to date are preliminary and will need changes. Based on the operations and conflicts on-site and the low demand for a right-out driveway, the County will permit a right-in access only at this location. Design details shall be addressed as part of the City Design Review process.

6. Adequate sight distance of 350 feet shall be provided at all access points to Beavercreek Road.

7. The applicant has proposed a traffic signal at the south end of the site which will be part of a new roadway, Meyers Road, which will be constructed to ultimately connect to the intersection of Highway 213 at Meyers Road. Signal warrants and project traffic volumes have been reviewed by the County. Based on this analysis, the County recommends installation of a traffic signal at this location. The design shall be per County standards and be constructed to an ultimate design on the west side of the roadway. Details of the design will be determined as part of the City Design Review process. The traffic signal shall be energized prior to opening the new campus with the increased enrollment.

8. Meyers Road at its intersection with Beavercreek Road shall consist of a minimum of 50 feet curb to curb width, to allow for a three-lane section with bike lanes. Minimum curb radii at the intersection shall be 25 feet if there are bike lanes on the new collector roadway.

9. There have been discussions with the applicant related to a potential connection to Clackamas Community College. In order to benefit overall traffic flow and circulation, it is desirable to provide a connection to the College.

10. Prior to commencement of work within the County road right-of-way, a Street Construction and Encroachment Permit and a Utility Placement Permit are required and shall be obtained from this office.

11. Prior to construction of the traffic signal, a set of plans for all signal and roadway related work shall be provided to Clackamas County for review and approval.

12. Streetlights are a requirement of this development and shall be installed to comply with the requirements of the City of Oregon City.

Recommendation: Approval with conditions.

Recommended Conditions of Approval:

1) All frontage improvements in, or adjacent to Clackamas County right-of-way, shall be in compliance with *Clackamas County Roadway Standards* in cooperation with City of Oregon City.

2) The applicant shall dedicate right-of-way, along the entire site frontage of Beavercreek Road, to provide for a 45-foot wide, ½ street right-of-way width on the westerly side of Beavercreek Road.

3) Frontage improvements to Beavercreek Road shall include curb placement for a five-lane roadway. Design details shall be worked out as part of the City of Oregon City Design review process. Travel lane widths shall be 12 feet and turn lane widths shall be 14-feet with six (6) foot wide bike lanes.

4) The applicant shall dedicate a five-foot wide sign, slope, utility and sidewalk easement along the entire site frontage of tax lots 500, 600 and 1300 on the westerly side of Beavercreek Road.

5) The applicant shall design and construct a traffic signal at the intersection of Beavercreek Road/Meyers Road (new roadway on south side of the school). The traffic signal shall be designed to County standards. Details of the signal design shall be determined as part of the City Design Review process.

6) Prior to any construction work associated with the traffic signal, an Intergovernmental agreement shall be drafted and signed by the City and County related to maintenance and power costs of the traffic signal. Prior to construction of the traffic signal, a set of signal plans shall be provided to Clackamas County for review and approval.

7) In order to benefit overall traffic flow and safety, it is desirable that permanent full time vehicle/pedestrian connection be provided between the Moss Campus and Clackamas Community College to the north.

8) The applicant shall design and construct improvements along the entire site frontage of Beavercreek Road. Improvement shall result in a curb set along the frontage to ultimately allow two southbound 12-foot wide travel lanes, a center 14-foot wide turn lane, a northbound 12-foot wide travel lane and six (6) foot wide bike lanes on both sides of the road. Sidewalk, seven (7) feet in width, shall be provided per City of Oregon City requirements. In addition, necessary drainage facilities shall be provided. If mailboxes, fire hydrants, utility poles, etc, are located within the limits of the sidewalk, an eyebrow shall be constructed so that the full width of the sidewalk is provided around the obstruction. Additional right-of-way, as necessary, shall be dedicated to provide for any sidewalk eyebrows. Sidewalks at transit stops shall be a minimum of 8 feet in width. The structural section for Beavercreek Road improvements shall consist of four (4) inches of Class "B" or Class "C" asphalt concrete placed in two (2) lifts, consisting of two (2) inches per lift, over four (4)-

inches of 3/4"-0 aggregate leveling course, over ten (10)-inches of 1-1/2"-0 aggregate base course, over geotextile fabric.

9) The proposed northern access to the site shall be a right-in access only. Design details shall be addressed as part of the City Design Review process.

10) At the proposed signal location, the new collector roadway shall be a minimum of 50 feet in width, curb to curb, to allow for a three (3) lane section with bike lanes. Minimum curb radii at the intersection shall be 25 feet if there are bike lanes on the new collector roadway.

11) Surface water runoff shall be detained on site in accordance with Oregon City requirements. The applicant shall provide a copy of the drainage study and Engineer's detention calculations to DTD Engineering, Deana Mulder.

12) The applicant shall provide adequate intersection sight distance at the driveway intersection with Beavercreek Road and the new collector street intersection with Beavercreek Road. In addition, no plantings at maturity, retaining walls, embankments, fences or any other object shall be allowed to obstruct vehicular sight distance.

13) The applicant shall submit an Engineer's cost estimate to be approved by Clackamas County Engineering for the asphalt concrete, aggregates, storm drainage improvements, driveway, curb, sidewalk, signal, and any other required public improvement.

14) The applicant shall provide a performance guarantee in the form of a performance bond for the Street Construction and Encroachment permit in the amount of 125% of the Engineer's approved cost estimate.

15) All traffic control devices on private property, located where private driveways intersect County facilities shall be installed and maintained by the applicant, and shall meet standards set forth in the *Manual on Uniform Traffic Control Devices* and relevant Oregon supplements.

16) Streetlights are a requirement of this development and shall be installed to comply with the requirements of the City of Oregon City.

17) The applicant shall provide ADA accesses to the sidewalks and driveway approach. All ADA construction shall comply with the *Uniform Building Code* and ODOT Standards.

18) Prior to the issuance of a building permit from the City, the applicant shall submit to Clackamas County Engineering Office a set of construction plans for review to Deana Mulder in Clackamas County's Engineering Office and obtain written approval, in the form of a Street Construction and Encroachment Permit. The permit will be for road, driveway, curb, sidewalk, drainage and signal improvements. The permit fee is a minimum of $400.00. In addition, an inspection fee equal to 4% of the cost of the public improvements will be required. The applicant shall have an

Engineer, registered in the state of Oregon, design and stamp the construction plans for all required improvements.

19) The applicant shall submit, at time of initial paving and before occupancy, reproducible As-Built plans for all improvements showing all construction changes, added and deleted items, location of utilities, etc. A professional engineer, registered in the state of Oregon, shall stamp and sign As-Built plans. In addition, the applicant shall provide one set of AutoCAD As-Built files on a floppy disk or in DXF format to be translated into AutoCAD format.

20) Prior to final acceptance of the project and release of performance surety, the right-of-way dedication, and the sign, slope, utility and sidewalk easement shall be recorded.

21) Prior to commencement of any work within the road right-of-way and prior to issuance of Building and Street Construction permits, the contractor shall:

    a) Provide a traffic control plan for review and approval from Clackamas County's Engineering Office.

    b) Provide a certificate of liability insurance, naming the County as additionally insured.

    c) Obtain separate "Street Opening Permits" for utility installations within the County right-of-way. The applicant shall obtain these permits from the Engineering office prior to the issuance of a Building Permit or the Street Construction and Encroachment Permit.

PRELIMINARY CONDITIONS OF APPROVAL
CU 01-01

1. The applicant shall reconstruct the Highway 213/Glen Oak Road/Caufield Road intersection to include realignment to a standard four-leg intersection with a traffic signal and appropriate lanes and queue storage.

2. The applicant shall reconstruct the main school access (or shared access or collector/arterial road) with Beavercreek Road, including installation of a traffic signal and provision of sufficient lanes and queue storage. Improvements along the subject property frontage on Beavercreek shall conform to Clackamas County requirements contained in Exhibit 5d of the staff report dated May 14, 2001.

3. The applicant shall reconstruct a substantial portion of Glen Oak Road from Highway 213 to Beavercreek Road to include adequate lane width for substantially increased traffic and provisions for pedestrians and bicyclists.

4. The construction of the new Meyers Road Extension shall be accepted as an alternative to the Glen Oak Road improvements and the redesign and reconstruction of the Highway 213/Glen Oak Road/Caufield Road intersection.

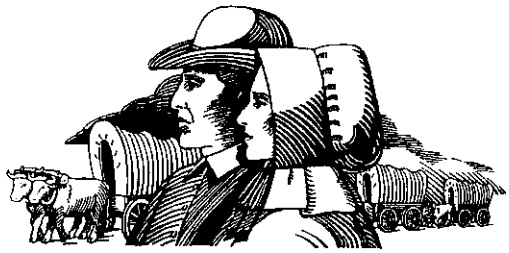
5. The applicant shall be responsible for this project's compliance to Engineering Policy 00-01. The policies pertain to any land use decision requiring the applicant to provide any public improvements.

6. The applicant shall sign a Non-Remonstrance Agreement for the purpose of making sanitary sewer, storm sewer, water or street improvements in the future that benefit the property and assessing the cost to benefited properties pursuant to the City's capital improvement regulations in effect at the time of such improvement.

CITY OF OREGON CITY

Planning Commission

320 WARNER MILNE ROAD OREGON CITY, OREGON 97045
TEL 657-0891 FAX 657-7892



MEMORANDUM
Date: May 7, 2001

FILE NO.:	AN 01-02
HEARING TYPE:	Legislative: Planning Commission Hearing Date, May 14, 2001
APPLICANT:	City of Oregon City
PROPERTY OWNERS:	City of Oregon City
REQUEST:	Annexation of 13.71 acres from Clackamas County into the City of Oregon City; and annexation of 0.70 acre of Public Right-of-Way
LOCATION:	Abutting the end of Jessie Avenue where Jessie Avenue intersects with Leland Road; identified by the Clackamas County Tax Assessor Map as 3S-2E-7, Tax Lot 501; and public right-of-way linking Prospector Terrace and Leland Road, identified on the Clackamas County Tax Assessor Map as 3S-2E-7A.
RECOMMENDATION:	Approval
REVIEWERS:	Ken Martin, Metro Maggie Collins, Oregon City
ATTACHMENT:	**Annexation Report—Proposal No. AN-01-02**

BACKGROUND:
Oregon City annexation requests are first evaluated by the Planning Commission under Ordinance 99-1030 adopted on December 1, 1999 (Section 14.04.060 of the Municipal Code). This requires the Planning Commission to hold a public hearing to recommend whether the request satisfies seven City criteria whereupon a recommendation of approval for ballot placement can occur (see page 1, Exhibit A).

TITLE 14 ANNEXATION CRITERIA
The seven criteria are as follows:

> ***14.04.060 Annexation factors.***
>
> ***When reviewing a proposed annexation, the commission shall consider the following factors, as relevant:***
> ***1. Adequacy of access to the site;***
> ***2. Conformity of the proposal with the city's comprehensive plan;***
> ***3. Adequacy and availability of public facilities and services to service potential development;***
> ***4. Compliance with applicable sections of ORS Ch. 222, and Metro Code Section 3.09;***
> ***5. Natural hazards identified by the city, such as wetlands, floodplains and steep slopes;***
> ***6. Any significant adverse effects on specially designated open space, scenic, historic or natural resource areas by urbanization of the subject property at time of annexation;***
> ***7. Lack of any significant adverse effects on the economic, social and physical environment of the community by the overall impact of the annexation.***

Subsequently, the request is reviewed at a City Commission public hearing, who takes into account the recommendation of the Planning Commission. If the City Commission finds in favor of the applicant, the proposed annexation property will be placed on the next available municipal ballot. If the voters approve the annexation request, the final steps are for the City Commission to proclaim the results of the election and to set the boundaries of the annexed area legal description by ordinance.

STAFF COMMENTS
The City's seven criteria are reviewed item by item on pages 7-11 of the attached Staff Report. The staff conclusion is that the criteria are met, and that a positive recommendation can be made to the City Commission concerning putting this request on the ballot. (See Page 11).

May 14, 2001
Planning Commission Hearing

PROPOSAL NO. AN 01-02 - CITY OF OREGON CITY - Annexation

Property Owners / Voters: City of Oregon City

Proposal No. AN 01-02 was initiated by a consent petition of the property owners and registered voters. The petition meets the requirement for initiation set forth in ORS 222.170 (2) (double majority annexation law) and Metro Code 3.09.040 (a) (Metro's minimum requirements for a petition).

Under the City's Code the Planning Commission reviews an annexation proposal and makes a recommendation to the City Commission. If the City Commission decides the proposed annexation should be approved, the City Commission is required by the Charter to submit the annexation to the electors of the City. If a necessary party raises concerns on or before the City Commission's public hearing, the necessary party may appeal the annexation to the Metro Appeals Commission within 10 days of the date of the City Commission's decision.

The territory to be annexed is located generally on the south side of the City at the end of Jessie Court off of Leland Road. The territory contains 13.71 acres and is a vacant piece of City-owned property.

PROPOSED MODIFICATION

The territory to be annexed also includes the proposed addition of public right-of-way of approximately 550 lineal feet of Haven Road.

City staff notes that on a previous nearby annexation a piece of road right-of-way was not included and is now completely surrounded by the City. The City engineering staff asked if that piece of R-O-W could be included in the current proposal in order to avoid doing a separate annexation proposal just to annex the short stretch of Haven Road which is entirely surrounded by the City. Nothing in the statutes or rules on annexation would prevent this and the staff would recommend it. A map showing the effected territory is attached as Figure 3. (*NOTE:* The Planning Commission previously approved including this piece of right-of-way in Annexation Proposal AN 00-07 but the City Commission did not send that proposal to a vote.)

REASON FOR ANNEXATION

The City desires annexation to facilitate master planning of the site for a City park.

City Parks & Recreation staff provided the following narrative:

In 1998 the City of Oregon City purchased 13.71 acres from Oregon City School District using Park SDC funds for the future development of a park.

In the 1999 Parks and Recreation Master Plan, this area was identified as park deficient and this property received high priority ranking for development.

During 2000, the Parks and Recreation Advisory Committee identified this property as a high priority for development, not only because of its location but because its size would allow for the development of much needed sports fields. In light of the desire to move intense ballfield use off Chapin Park to allow for more passive uses, master planning of the Jessie Court property became a number one priority.

Early in 2001, a contract was awarded to Lango-Hansen, Landscape Architects to begin the Public Meeting process to develop a Master Plan for the Jessie Court Property.

In order to design this park to Oregon City Standards under Oregon City zoning, instead of the County's, it is necessary to annex the property into the City. Due to Jessie Court's planning schedule, it is essential that this annexation proposal be placed on the September ballot.

LAND USE PLANNING

SITE CHARACTERISTICS

The property is basically a flat pasture-like piece with PGE power lines overhead. There is one powerline tower on the parcel.

REGIONAL PLANNING

General Information

This territory is inside Metro's jurisdictional boundary and inside the regional Urban Growth Boundary (UGB).

Metro Boundary Change Criteria

The Legislature directed Metro to establish criteria that must be used by all cities within the Metro boundary. The Metro Code states that a final decision shall be based on substantial evidence in the record of the hearing and that the written decision must include findings of fact and conclusions from those findings. The Code requires these findings and conclusions to address the following minimum criteria:

1. Consistency with directly applicable provisions in ORS 195 agreements or ORS 195 annexation plans.

2. Consistency with directly applicable provisions of urban planning area agreements between the annexing entity and a necessary party.

3. Consistency with directly applicable standards for boundary changes contained in Comprehensive land use plans and public facility plans.

4. Consistency with directly applicable standards for boundary changes contained in the Regional framework or any functional plans.

5. Whether the proposed boundary change will promote or not interfere with the timely, orderly and economic provision of public facilities and services.

6. If the boundary change is to Metro, determination by the Metro Council that the territory should be inside the UGB shall be the primary criteria.

7. Consistency with other applicable criteria for the boundary change in question under state and local law.

The Metro Code also contains a second set of 10 factors which are to be considered where: 1) no ORS 195 agreements have been adopted, and 2) a necessary party is contesting the boundary change. Those 10 factors are not applicable at this time to this annexation because no necessary party has contested the proposed annexation.

Regional Framework Plan

The law that requires Metro to adopt criteria for boundary changes specifically states that those criteria shall include " . . . compliance with adopted regional urban growth goals and objectives, functional plans . . . and the regional framework plan of the district [Metro]." The Regional Framework Plan, which includes the regional urban growth goals and objectives, the Growth Management Functional Plan and the Regional Transportation Plan were examined and found not to contain specific criteria applicable to boundary changes.

CLACKAMAS COUNTY PLANNING

The Metro Code states that the Commission's decision on this boundary change should be ". . . consistent with specific directly applicable standards or criteria for boundary changes contained in comprehensive land use plans, public facility plans, . . "

The Clackamas County Comprehensive Plan is the currently applicable plan for this area. The plan designation for this site is Low Density Residential (LDR) on the County's Oregon

City Area Land Use Plan (Map IV-5). Zoning on the property is FU-10, Future Urban, 10 acre minimum lot size.

Policy 5.0 of the Land Use Chapter provides that land is converted from *"Future Urbanizable to Immediate Urban when land is annexed to either a city or special district capable of providing public sewer."* Policy 6.0 contains guidelines that apply to annexations, such as this one, that convert Future Urbanizable to Immediate Urban land:

a. Capital improvement programs, sewer and water master plans, and regional public facility plans should be reviewed to insure that orderly, economic provision of public facilities and services can be provided.

b. Sufficient vacant Immediate Urban land should be permitted to insure choices in the market place.

c. Sufficient infilling of Immediate Urban areas should be shown to demonstrate the need for conversion of Future Urbanizable areas.

d. Policies adopted in this Plan for Urban Growth Management Areas and provisions in signed Urban Growth Management Agreements should be met (see Planning Process Chapter.)

The capital improvement programs, sewer and water master plans and regional plan were reviewed. Those are addressed below.

Urban Growth Management Agreement

The City and the County have an Urban Growth Management Agreement (UGMA), which is a part of their Comprehensive Plans. The territory to be annexed falls within the urban growth management boundary (UGMB) identified for Oregon City and is subject to the agreement. The County agreed to adopt the City's Comprehensive Plan designations for this area. The County adopted the City's Low Density Residential plan designation. Consequently, when property is annexed to Oregon City, it already has a City planning designation.

The Agreement presumes that all the urban lands within the UGMB will ultimately annex to the City. It specifies that the city is responsible for the public facilities plan required by Oregon Administrative Rule Chapter 660, division 11. The Agreement goes on to say:

4. City and County Notice and Coordination

* * *

D. The CITY shall provide notification to the COUNTY, and an opportunity to participate, review and comment, at least 20 days prior to the first public hearing on all proposed annexations . . .

* * *

5. *City Annexations*

   A. *CITY may undertake annexations in the manner provided for by law within the UGMB. CITY annexation proposals shall include adjacent road right-of-way to properties proposed for annexation. COUNTY shall not oppose such annexations.*

   * * *

   C. *Public sewer and water shall be provided to lands within the UGMB in the manner provided in the public facility plan . . .*

* * *

The required notice was provided to the County at least 20 days before the Planning Commission hearing.

CITY PLANNING

Although the Oregon City acknowledged Comprehensive Plan does not cover this territory, the City prepared a plan for its surrounding area and the County has adopted its plan designations in this area. Certain portions of the City Plan have some applicability and these are covered here.

Chapter G of the Plan is entitled *Growth And Urbanization Goals And Policies*. Several policies in this section are pertinent to proposed annexations.

5. *Urban development proposals on land annexed to the City from Clackamas County shall be consistent with the land use classification and zoning approved in the City's Comprehensive Plan. Lands that have been annexed shall be reviewed and approved by the City as outlined in this section.*

6. *The rezoning of land annexed to the City from Clackamas County shall be processed under the regulations, notification requirements and hearing procedures used for all zone change requests, except in those cases where only a single City zoning designation corresponds to the Comprehensive Plan designation and thus the rezoning does not require the exercise of legal or policy judgement on the part of the decision maker. . . .*

   Quasi-judicial hearing requirements shall apply to all annexation and rezoning applications.

These policies are not approval criteria for annexations. They provide that the City's Comprehensive Plan designations will apply upon annexation, how zoning will be changed and that annexations are to be processed according to quasi-judicial procedures.

The *Community Facilities Goals And Services* Chapter of the Comprehensive Plan contains the following pertinent sections.

Goal

Serve the health, safety, education, welfare and recreational needs of all Oregon City residents through the planning and provision of adequate community facilities.

Policies

1. *The City of Oregon City will provide the following urban facilities and services as funding is available from public and private sources:*

    a. *Streets and other roads and paths*
    b. *Minor sanitary and storm water facilities*
    c. *Police protection*
    d. *Fire protection*
    e. *Parks and recreation*
    f. *Distribution of water*
    g. *Planning, zoning and subdivision regulation*

* * *

3. *Urban public facilities shall be confined to the incorporated limits.*

Policy three prevents the City from extending services outside the City limits. Consequently, lands outside the City are required to annex to use urban public facilities

* * *

6. *The extension or improvement of any major urban facility and service to an area will be designed to complement the provision of other urban facilities and services at uniform levels.*

Policy six requires that the installation of a major urban facility or service should be coordinated with the provision of other urban facilities or services.

Read together these policies suggest that, when deciding to annex lands, the City should consider whether a full range of urban facilities or services are available or can be made available to serve the territory to be annexed. Oregon City has implemented these policies

with its Code provisions on processing annexations, which require the City to consider adequacy of access and adequacy and availability of public facilities and services.

7. *The Tri-City Service District will be encouraged to extend service into the urban growth area concurrent with annexation approval by Oregon City.*

The Tri-City County Service District was provided notice of this annexation. Before sanitary sewers can be extended to lands annexed to the City those lands will need to annex to the District. The City (as the property owner) may initiate that annexation after annexation to the City.

Fire Protection

2. *Oregon City will ensure that annexed areas receive uniform levels of fire protection.*

Because the City is required by this policy to provide the same level of fire protection to newly annexed areas that it provides to other areas within the City, it may consider whether it will be possible to do so when it decides an annexation proposal.

Chapter M, of the City's Comprehensive Plan identifies land use types. Low Density Residential is identified as follows:

(3) *LOW DENSITY RESIDENTIAL [LR]: Areas in the LR category are largely for single-family homes or more innovative arrangements, such as low density planned development.*

The City/County urban growth management agreement specifies that the County's acknowledged Comprehensive Plan and implementing regulations shall apply until annexation and subsequent plan amendments are adopted by the City. The Oregon City Code requires the City Planning Division to review the final zoning designation within sixty days of annexation, utilizing a chart and some guidelines laid out in Section 17.06.050. Those provisions specify that territory with a plan designation of Low Density Residential will be zoned R-10. Public parks are a permitted use in an R-10 zone.

The City's Code contains provisions on annexation processing. Section 6 of the ordinance requires the City Commission "to consider the following factors, as relevant":

1. *Adequacy of access to the site;*

The site access is discussed below in the Facilities and Services section.

2. *Conformity of the proposal with the City's Comprehensive Plan;*

As demonstrated in this section of the staff report, the annexation conforms to the City's Comprehensive Plan.

3. *Adequacy and availability of public facilities and services to service potential development;*

The Facilities and Services discussion of this report demonstrates that public facilities and services are available and are adequate to serve the potential development.

4. *Compliance with applicable sections of Oregon Revised Statutes Chapter 222, and Metro Code 3.09;*

The only criterion in ORS 222 is that annexed lands be contiguous to the City. This site is contiguous. The Metro Code criteria are set out on pages 2-3 of this report. This report considers each factor and the Conclusions and Reasons in the attached Findings and Reasons demonstrate that these criteria are satisfied.

5. *Natural hazards identified by the City, such as wetlands, floodplains, and steep slopes;*

There are no natural hazards identified by the City Comprehensive Plan located on or adjacent to the subject site.

6. *Any significant adverse effects on specially designated open space, scenic historic or natural resource areas by urbanization of the subject property at the time of annexation;*

There are no specifically designated open spaces, scenic historic or natural resource areas on or adjacent to the subject site.

7. *Lack of any significant adverse effects on the economic, social and physical environment of the community by the overall impact of annexation."*

Annexation should have no negative effect on the economic, social or physical environment of the community. The Commission interprets the "community" as including the City of Oregon City and the lands within its urban service area. The City will obtain land use jurisdiction over the territory. The City will have service responsibilities including fire, police, etc. The City will ultimately take on the funding responsibility for developing and maintaining a park but the annexation itself does not dictate those costs.

Section 8 of the Ordinance states that:

> *"The City Commission shall only set for an election annexations consistent with a positive balance of the factors set forth in Section 6 of this ordinance. The City Commission shall make findings in support of its decision to schedule an annexation for an election."*

FACILITIES AND SERVICES

ORS 195 Agreements. ORS 195 requires agreements among providers of urban services. Urban services are defined as: sanitary sewers, water, fire protection, parks, open space, recreation and streets, roads and mass transit. There are no adopted urban service agreements in this part of Clackamas County.

Sanitary Sewers. The City of Oregon City provides sanitary sewer collector service. The adjacent property to the north is being developed as the Silver Fox subdivision. A street containing an 8-inch sewer line will be stubbed to the property line of the Jessie Court property.

The Tri-City County Service District provides sewage transmission and treatment services to the cities of Oregon City, West Linn and Gladstone. Each city owns and maintains its own local sewage collection system. The District owns and maintains the sewage treatment plant and interceptor system. The three cities are in the District and as provided in the intergovernmental agreement between the District and the City, the District does not serve territories outside Oregon City, with one exception.

Before January 1, 1999, state statute (ORS 199) provided that when territory was annexed to a city that was wholly within a district, the territory was automatically annexed to the district as well. That statute no longer applies in this area. Therefore, each annexation to Oregon City needs to be followed by a separate annexation of the territory to the Tri-City Service District.

Water. The adjacent property to the north is being developed as the Silver Fox subdivision. A street containing an 8-inch water line will be stubbed to the property line of the Jessie Court property. Clackamas River Water has a 6-inch water line in Jessie Court which would be joined to the proposed 8-inch line with an extension through the Jessie Court property.

The area to be annexed is in the Clackamas River Water District. Oregon City and the District have agreements for the transition of water systems from the District to the City as the City expands. They have agreed to jointly use certain of the District's mains and they jointly financed some mains crossing through unincorporated areas. They also agreed that the territory within the City's urban services boundary would receive all urban services from the City. In many places the District's water lines were too small to serve urban levels of development. In those places, such as in Central Point Road, the City has extended larger City water mains to serve the planned-for urban development. Under the agreement, new connections of City territory are City customers. Where the District has adequate size water lines (which were identified in an agreement) the District's lines will transfer to the City when the City has annexed 75% of the frontage on both sides of specified water lines. Under the Agreement, Oregon City can withdraw territory from the District when the City provides direct water service to an area.

Oregon City, with West Linn, owns the water intake and treatment plant, which the two cities operate through a joint intergovernmental entity known as the South Fork Water

Board (SFWB). The ownership of the Board is presently divided with Oregon City having 54 percent and West Linn 46 percent ownership of the facilities.

The water supply for the South Fork Water Board is obtained from the Clackamas River through an intake directly north of the community of Park Place. Raw water is pumped from the intake up to a water treatment plant located within the Park Place neighborhood. The treated water then flows south through a pipeline and is pumped to a reservoir in Oregon City for distribution to both Oregon City and West Linn. The SFWB also supplies surplus water to the Clairmont Water District portion of the Clackamas River Water District.

Both the river intake facility and the treatment plant have a capacity of twenty million gallons per day (MGD). There is an intertie with Lake Oswego's water system that allows up to five MGD to be transferred between Lake Oswego and SFWB (from either system to the other).

Oregon City has four functional reservoirs with a capacity of 16.0 million gallons, which is adequate to serve the City through the Water Master Plan planning period to year 2015 if other systems are not supplied.

Storm Sewerage. The adjacent property to the north is being developed as the Silver Fox subdivision. A street containing an 12-inch stormwater line will be stubbed to the property line of the Jessie Court property. This line will be continued through the subject property when the street stub from the Silver Fox subdivision is extended to connect with Jessie Court.

Fire Protection. This territory is currently within Clackamas County R.F.P. D. # 1. The Oregon City Fire Department provides service within the City under a contract with the Tualatin Valley Fire and Rescue District. A portion of the City's property tax levy goes toward payment of this service. Oregon Revised Statute 222.120 (5) allows the City to specify that the territory be automatically withdrawn from Clackamas County RFPD #1 upon approval of the annexation.

Police Protection. The Clackamas County Sheriff's Department currently serves the territory. Subtracting out the sworn officers dedicated to jail and corrections services, the County Sheriff provides approximately .5 officers per thousand population for local law enforcement services.

The area to be annexed lies within the Clackamas County Service District for Enhanced Law Enforcement, which provides additional police protection to the area. The combination of the county-wide service and the service provided through the Enhanced Law Enforcement CSD results in a total level of service of approximately 1 officer per 1000 population. According to ORS 222.120 (5) the City may provide in its approval ordinance for the automatic withdrawal of the territory from the District upon annexation to the City. If the territory were withdrawn from the District, the District's levy would no longer apply to the property.

Upon annexation the Oregon City Police Department will serve the territory. Oregon City fields approximately 1.04 officers per 1000 population. The City is divided into three patrol districts with a four-minute emergency response and a twenty-minute non-emergency response time.

Parks, Open Space and Recreation. The City wishes to move forward towards development of this site as a Community/Neighborhood Park. Annexation will allow the City do the master planning of the park using City standards.

Transportation. Access is provided from Jessie Court and will also be provided by the street which is being developed in the Silver Fox Subdivision adjacent on the north. That street will is proposed to be extended through the Jessie Court property.

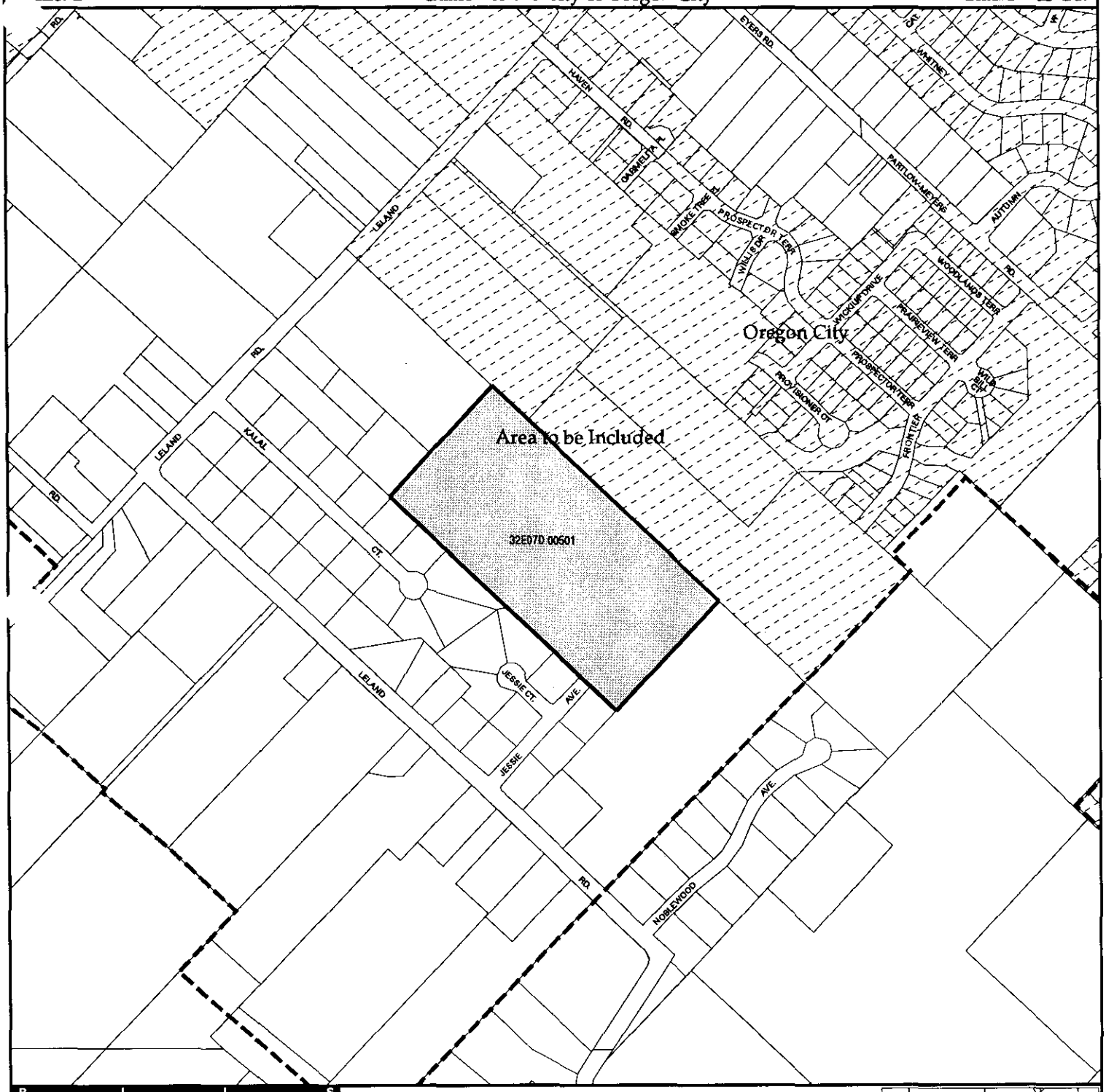
Other Services. Planning, building inspection, permits, and other municipal services will be available to the territory from the City upon annexation.

RECOMMENDATION

Based on the study and the Proposed Findings and Reasons for Decision attached in Exhibit A, the staff recommends that the Commission recommend to the City Commission that it set Proposal No. AN 01-02 for an election. The staff further recommends that the annexation be modified to include the R-O-W of Haven Road identified on Figure 3 as recommended by the City Engineer and that the combined territory be withdrawn from Clackamas County R.F.P.D. # 1 and the County Service District for Enhanced Law Enforcement as allowed by statute.

Proposal No. AN-01-02

3S2E07D | Annexation to the City of Oregon City | Clackamas Co.



R L I S
REGIONAL LAND INFORMATION SYSTEM

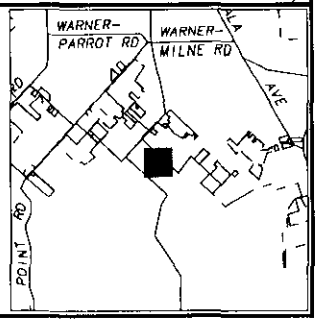
600 NE Grand Ave.
Portland, OR 97232-2736
Voice 503 797-1742
FAX 503 797-1909
Email drc@metro-region.org

METRO

County lines
City
Annexation boundary
Urban Growth Boundary

Proposal No. AN-01-02
CITY OF OREGON CITY
Figure 1

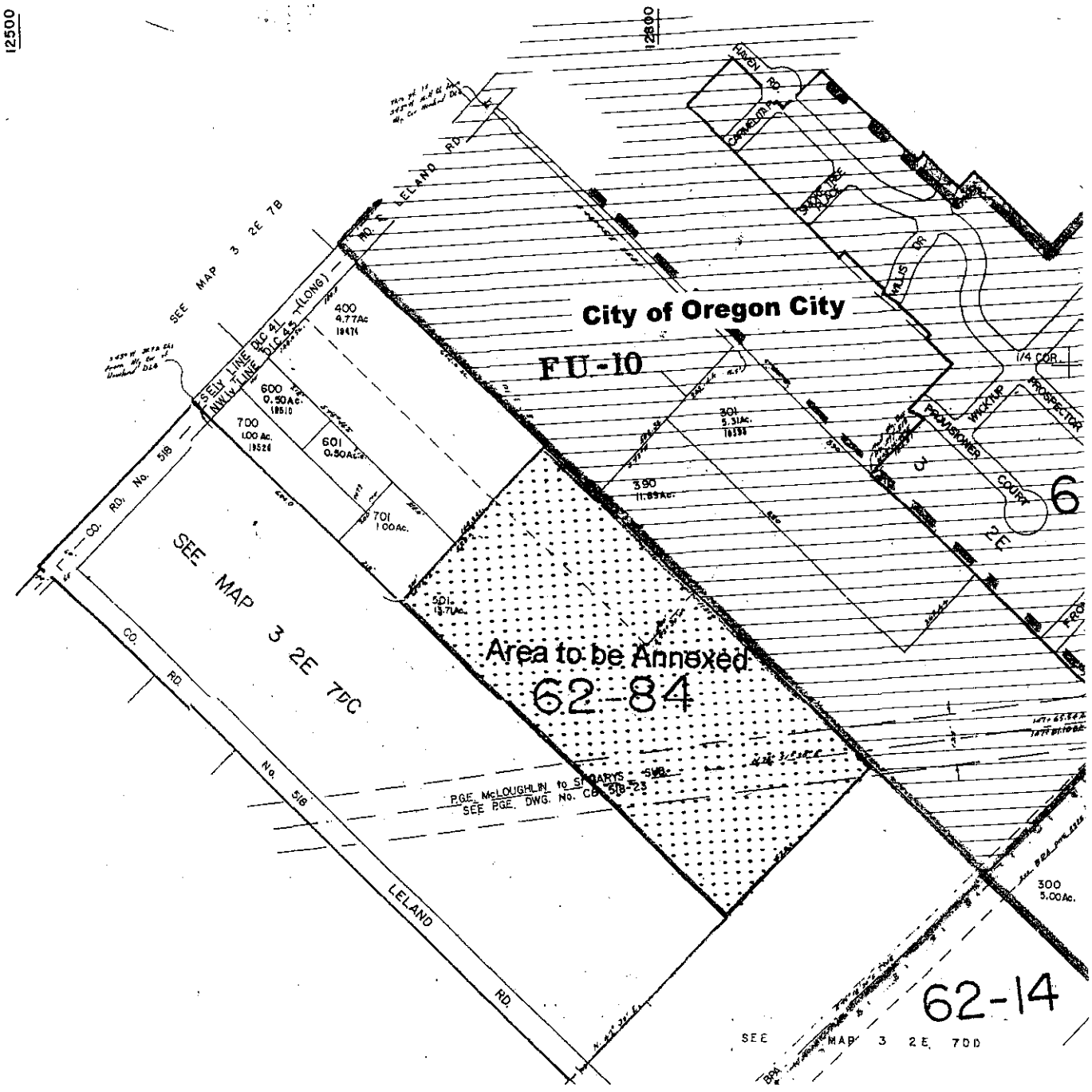
Scale: 1" = 500'
0 500 1000



Proposal No. AN-01-02

METRO
600 NE Grand Ave.
Portland, OR 97232-2736
Voice 503 797-1742
FAX 503 797-1909
Email drc@metro-region.org

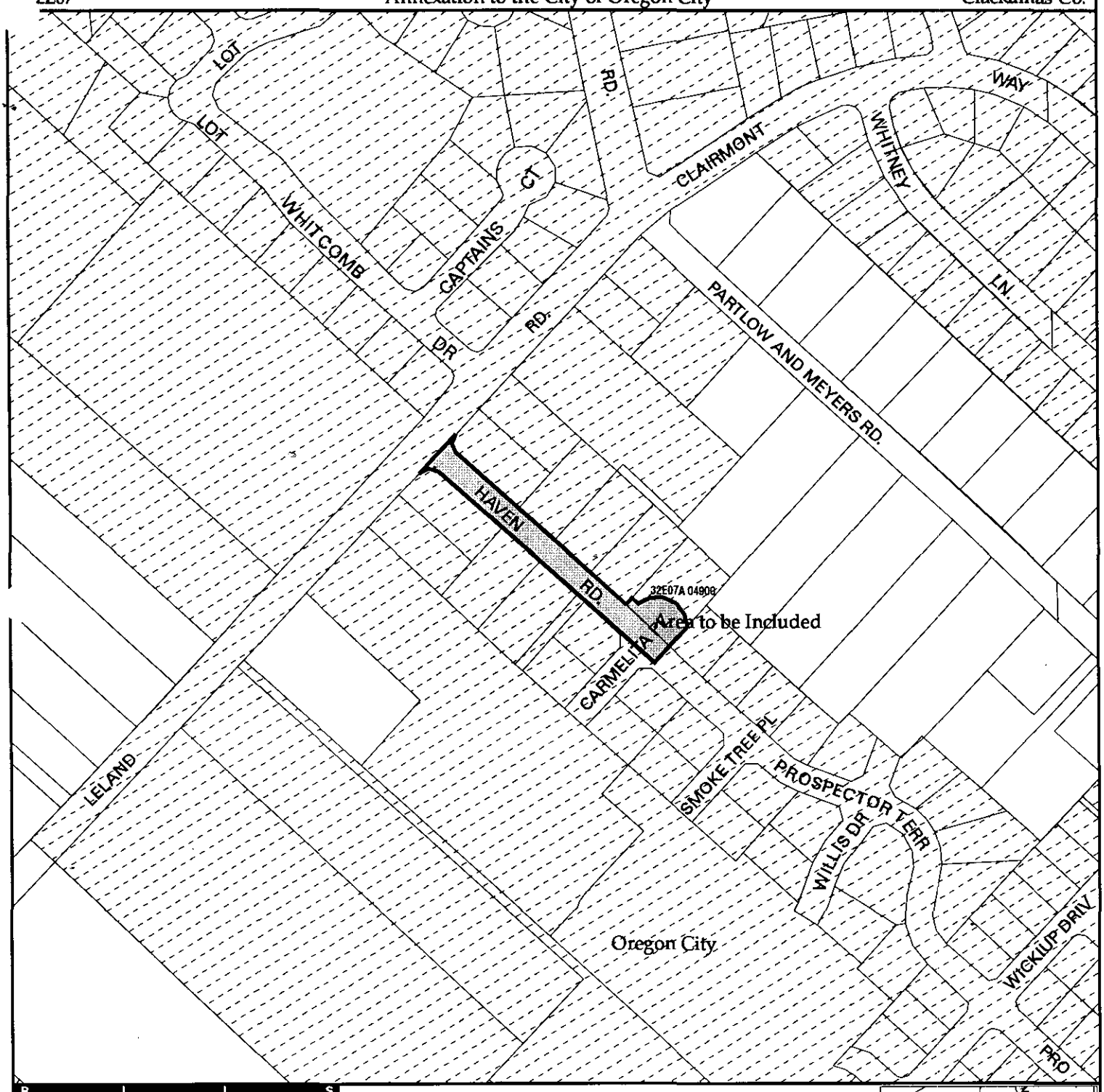
Annexation to the City of Oregon City
Clackamas Co.
Map 3S2E07D



PROPOSAL NO. AN-01-02
CITY OF OREGON CITY
Figure 2

Proposal No. AN-01-02

3S2E07 — Annexation to the City of Oregon City — Clackamas Co.



R L I S
REGIONAL LAND INFORMATION SYSTEM

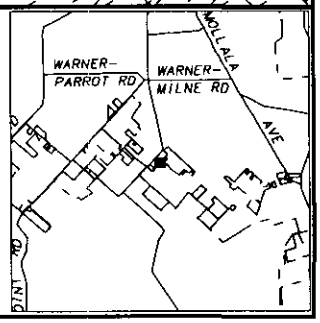
600 NE Grand Ave.
Portland, OR 97232-2736
Voice 503 797-1742
FAX 503 797-1909
Email drc@metro-region.org

METRO

County lines
City
Annexation boundary
Urban Growth Boundary

Proposal No. AN-01-02
CITY OF OREGON CITY
Figure 3

Scale: 1" = 250'
0 200 400

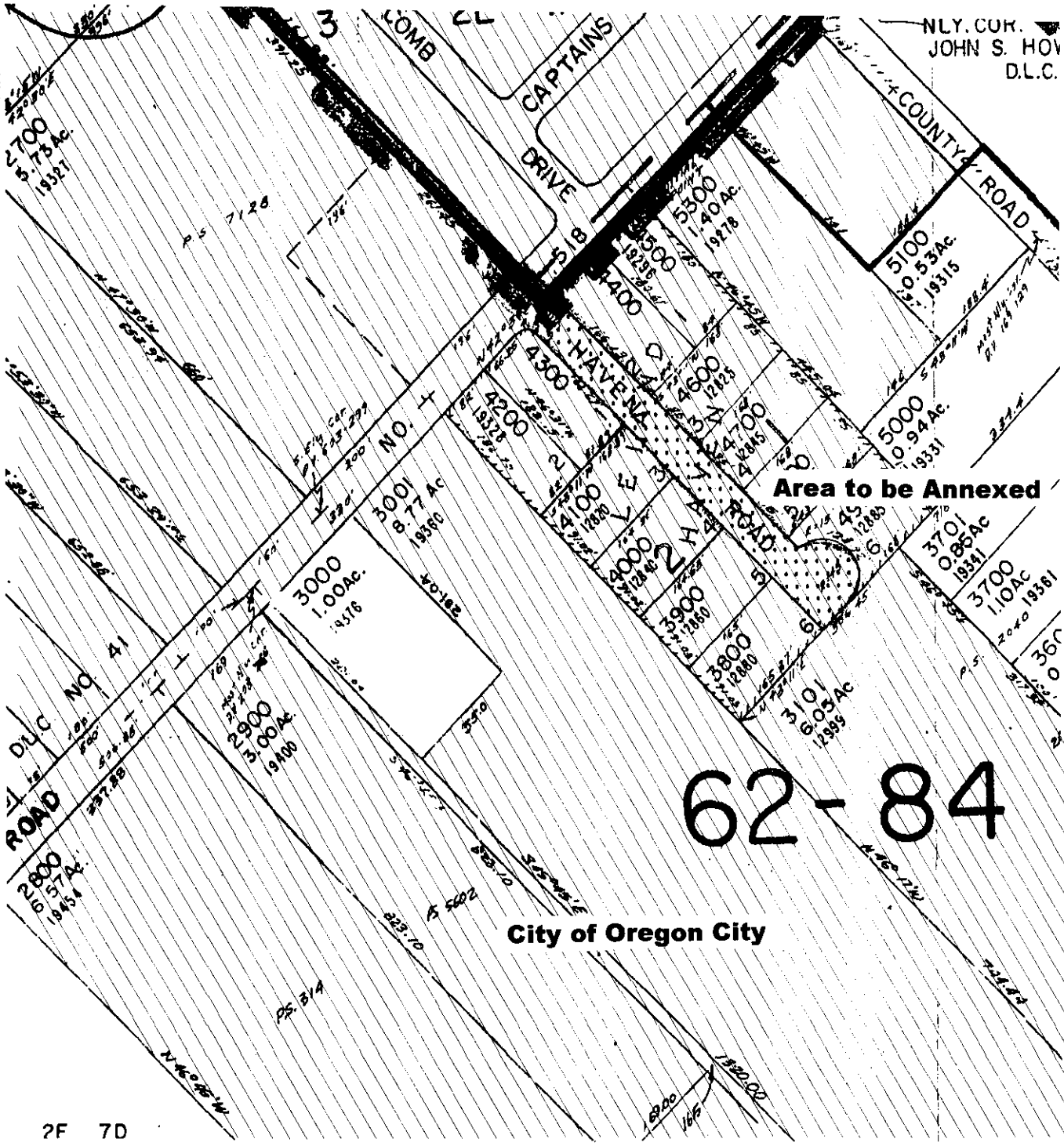


/bd/yadmin/plots/plotjur/begin.mxd, plot date: April 26, 2001

Proposal No. AN-01-02

600 NE Grand Ave.
Portland, OR 97232-2736
Voice 503 797-1742
FAX 503 797-1909
METRO Email drc@metro-region.org

Annexation to the City of Oregon City
Clackamas Co.
Map 3S2E07A



PROPOSAL NO. AN-01-02
CITY OF OREGON CITY
Figure 4

FINDINGS

Based on the study and the public hearing the Commission found:

1. The territory to be annexed contains 13.71 acres and is a vacant piece of City-owned property.

2. City staff noted that on a previous nearby annexation a piece of road right-of-way was not included and is now completely surrounded by the City. The City engineering staff asked if that piece of R-O-W could be included in the current proposal in order to avoid doing a separate annexation proposal just to annex the short stretch of Haven Road which is entirely surrounded by the City. Nothing in the statutes or rules on annexation would prevent this and the staff recommended it.

3. The City desires annexation to facilitate master planning of the site for a City park.

   City Parks and Recreation staff provided the following narrative:

   > In 1998 the City of Oregon City purchased 13.71 acres from Oregon City School District using Park SDC funds for the future development of a park.
   >
   > In the 1999 Parks and Recreation Master Plan, this area was identified as park deficient and this property received high priority ranking for development.
   >
   > During 2000, the Parks and Recreation Advisory Committee identified this property as a high priority for development, not only because of its location but because its size would allow for the development of much needed sports fields. In light of the desire to move intense ballfield use off Chapin Park to allow for more passive uses, master planning of the Jessie Court property became a number one priority.
   >
   > Early in 2001, a contract was awarded to Lango-Hansen, Landscape Architects to begin the Public Meeting process to develop a Master Plan for the Jessie Court Property.
   >
   > In order to design this park to Oregon City Standards under Oregon City zoning, instead of the County's, it is necessary to annex the property into the City. Due to Jessie Court's planning schedule, it is essential that this annexation proposal be placed on the September ballot.

4. The property is basically a flat pasture-like piece with PGE power lines overhead. There is one powerline tower on the parcel.

5. This territory is inside Metro's jurisdictional boundary and inside the regional Urban Growth Boundary (UGB).

   The Legislature directed Metro to establish criteria that must be used by all cities within the Metro boundary. The Metro Code states that a final decision shall be based on substantial evidence in the record of the hearing and that the written decision must include findings of fact and conclusions from those findings. The Code requires these findings and conclusions to address the following minimum criteria:

   1. Consistency with directly applicable provisions in ORS 195 agreements or ORS 195 annexation plans.

   2. Consistency with directly applicable provisions of urban planning area agreements between the annexing entity and a necessary party.

   3. Consistency with directly applicable standards for boundary changes contained in Comprehensive land use plans and public facility plans.

   4. Consistency with directly applicable standards for boundary changes contained in the Regional framework or any functional plans.

   5. Whether the proposed boundary change will promote or not interfere with the timely, orderly and economic provision of public facilities and services.

   6. If the boundary change is to Metro, determination by the Metro Council that the territory should be inside the UGB shall be the primary criteria.

   7. Consistency with other applicable criteria for the boundary change in question under state and local law.

   The Metro Code also contains a second set of 10 factors which are to be considered where: 1) no ORS 195 agreements have been adopted, and 2) a necessary party is contesting the boundary change. Those 10 factors are not applicable at this time to this annexation because no necessary party has contested the proposed annexation.

6. The law that requires Metro to adopt criteria for boundary changes specifically states that those criteria shall include " . . . compliance with adopted regional urban growth goals and objectives, functional plans . . . and the regional framework plan of the district [Metro]." The Regional Framework Plan, which includes the regional urban growth goals and objectives, the Growth Management Functional Plan and the

Regional Transportation Plan were examined and found not to contain specific criteria applicable to boundary changes.

The Metro Code states that the Commission's decision on this boundary change should be ". . . consistent with specific directly applicable standards or criteria for boundary changes contained in comprehensive land use plans, public facility plans, . . ."

The Clackamas County Comprehensive Plan is the currently applicable plan for this area. The plan designation for this site is Low Density Residential (LDR) on the County's Oregon City Area Land Use Plan (Map IV-5). Zoning on the property is FU-10, Future Urban, 10 acre minimum lot size.

Policy 5.0 of the Land Use Chapter provides that land is converted from *"Future Urbanizable to Immediate Urban when land is annexed to either a city or special district capable of providing public sewer."* Policy 6.0 contains guidelines that apply to annexations, such as this one, that convert Future Urbanizable to Immediate Urban land:

a. *Capital improvement programs, sewer and water master plans, and regional public facility plans should be reviewed to insure that orderly, economic provision of public facilities and services can be provided.*

b. *Sufficient vacant Immediate Urban land should be permitted to insure choices in the market place.*

c. *Sufficient infilling of Immediate Urban areas should be shown to demonstrate the need for conversion of Future Urbanizable areas.*

d. *Policies adopted in this Plan for Urban Growth Management Areas and provisions in signed Urban Growth Management Agreements should be met (see Planning Process Chapter.)*

The capital improvement programs, sewer and water master plans and regional plan were reviewed. Those are addressed in the findings below.

7. The City and the County have an Urban Growth Management Agreement (UGMA), which is a part of their Comprehensive Plans. The territory to be annexed falls within the urban growth management boundary (UGMB) identified for Oregon City and is subject to the agreement. The County agreed to adopt the City's Comprehensive Plan designations for this area. The County adopted the City's Low Density Residential plan designation. Consequently, when property is annexed to Oregon City, it already has a City planning designation.

The Agreement presumes that all the urban lands within the UGMB will ultimately annex to the City. It specifies that the city is responsible for the public facilities plan required by Oregon Administrative Rule Chapter 660, division 11. The Agreement goes on to say:

> 4. *City and County Notice and Coordination*
>
> * * *
>
> D. *The CITY shall provide notification to the COUNTY, and an opportunity to participate, review and comment, at least 20 days prior to the first public hearing on all proposed annexations . . .*
>
> * * *
>
> 5. *City Annexations*
>
> A. *CITY may undertake annexations in the manner provided for by law within the UGMB. CITY annexation proposals shall include adjacent road right-of-way to properties proposed for annexation. COUNTY shall not oppose such annexations.*
>
> * * *
>
> C. *Public sewer and water shall be provided to lands within the UGMB in the manner provided in the public facility plan . . .*
>
> * * *

The required notice was provided to the County at least 20 days before the Planning Commission hearing.

8. Although the Oregon City acknowledged Comprehensive Plan does not cover this territory, the City prepared a plan for its surrounding area and the County has adopted its plan designations in this area. Certain portions of the City Plan have some applicability and these are covered here.

Chapter G of the Plan is entitled *Growth And Urbanization Goals And Policies*. Several policies in this section are pertinent to proposed annexations.

> 5. *Urban development proposals on land annexed to the City from Clackamas County shall be consistent with the land use classification and zoning approved in the City's Comprehensive Plan. Lands that*

have been annexed shall be reviewed and approved by the City as outlined in this section.

6. *The rezoning of land annexed to the City from Clackamas County shall be processed under the regulations, notification requirements and hearing procedures used for all zone change requests, except in those cases where only a single City zoning designation corresponds to the Comprehensive Plan designation and thus the rezoning does not require the exercise of legal or policy judgement on the part of the decision maker. . . .*

   Quasi-judicial hearing requirements shall apply to all annexation and rezoning applications.

These policies are not approval criteria for annexations. They provide that the City's Comprehensive Plan designations will apply upon annexation, how zoning will be changed and that annexations are to be processed according to quasi-judicial procedures.

The *Community Facilities Goals And Services* Chapter of the Comprehensive Plan contains the following pertinent sections.

Goal

Serve the health, safety, education, welfare and recreational needs of all Oregon City residents through the planning and provision of adequate community facilities.

Policies

1. *The City of Oregon City will provide the following urban facilities and services as funding is available from public and private sources:*

   a. *Streets and other roads and paths*
   b. *Minor sanitary and storm water facilities*
   c. *Police protection*
   d. *Fire protection*
   e. *Parks and recreation*
   f. *Distribution of water*
   g. *Planning, zoning and subdivision regulation*

* * *

3. *Urban public facilities shall be confined to the incorporated limits.*

Policy three prevents the City from extending services outside the City limits. Consequently, lands outside the City are required to annex to use urban public facilities

* * *

6. *The extension or improvement of any major urban facility and service to an area will be designed to complement the provision of other urban facilities and services at uniform levels.*

Policy six requires that the installation of a major urban facility or service should be coordinated with the provision of other urban facilities or services.

Read together these policies suggest that, when deciding to annex lands, the City should consider whether a full range of urban facilities or services are available or can be made available to serve the territory to be annexed. Oregon City has implemented these policies with its Code provisions on processing annexations, which require the City to consider adequacy of access and adequacy and availability of public facilities and services.

7. *The Tri-City Service District will be encouraged to extend service into the urban growth area concurrent with annexation approval by Oregon City.*

The Tri-City County Service District was provided notice of this annexation. Before sanitary sewers can be extended to lands annexed to the City those lands will need to annex to the District. The City (as the property owner) may initiate that annexation after annexation to the City.

Fire Protection

2. *Oregon City will ensure that annexed areas receive uniform levels of fire protection.*

Because the City is required by this policy to provide the same level of fire protection to newly annexed areas that it provides to other areas within the City, it may consider whether it will be possible to do so when it decides an annexation proposal.

Chapter M, of the City's Comprehensive Plan identifies land use types. Low Density Residential is identified as follows:

(3) LOW DENSITY RESIDENTIAL [LR]: Areas in the LR category are largely for single-family homes or more innovative arrangements, such as low density planned development.

The City/County urban growth management agreement specifies that the County's acknowledged Comprehensive Plan and implementing regulations shall apply until annexation and subsequent plan amendments are adopted by the City. The Oregon City Code requires the City Planning Division to review the final zoning designation within sixty days of annexation, utilizing a chart and some guidelines laid out in Section 17.06.050. Those provisions specify that territory with a plan designation of Low Density Residential will be zoned R-10. Public parks are a permitted use in an R-10 zone.

The City's Code contains provisions on annexation processing. Section 6 of the ordinance requires the City Commission "to consider the following factors, as relevant":

1. Adequacy of access to the site;

Site access will be provided from Jessie Court on the south and from a new street which will be stubbed in from the newly approved subdivision on the north.

2. Conformity of the proposal with the City's Comprehensive Plan;

As demonstrated earlier in this finding, the annexation conforms to the City's Comprehensive Plan.

3. Adequacy and availability of public facilities and services to service potential development;

Public facilities and services are available and are adequate to serve the potential development as noted in the findings below.

4. Compliance with applicable sections of Oregon Revised Statutes Chapter 222, and Metro Code 3.09;

The only criterion in ORS 222 is that annexed lands be contiguous to the City. This site is contiguous. The Metro Code criteria are covered in other findings.

5. Natural hazards identified by the City, such as wetlands, floodplains, and steep slopes;

There are no natural hazards identified by the City Comprehensive Plan located on or adjacent to the subject site.

6. Any significant adverse effects on specially designated open space, scenic historic or natural resource areas by urbanization of the subject property at the time of annexation;

There are no specifically designated open spaces, scenic historic or natural resource areas on or adjacent to the subject site.

7. Lack of any significant adverse effects on the economic, social and physical environment of the community by the overall impact of annexation."

Annexation should have no negative effect on the economic, social or physical environment of the community. The Commission interprets the "community" as including the City of Oregon City and the lands within its urban service area. The City will obtain land use jurisdiction over the territory. The City will have service responsibilities including fire, police, etc. The City will ultimately take on the funding responsibility for developing and maintaining a park but the annexation itself does not dictate those costs.

Section 8 of the Ordinance states that:

"The City Commission shall only set for an election annexations consistent with a positive balance of the factors set forth in Section 6 of this ordinance. The City Commission shall make findings in support of its decision to schedule an annexation for an election."

9. ORS 195 requires agreements among providers of urban services. Urban services are defined as: sanitary sewers, water, fire protection, parks, open space, recreation and streets, roads and mass transit. There are no adopted urban service agreements in this part of Clackamas County.

10. The City of Oregon City provides sanitary sewer collector service. The adjacent property to the north is being developed as the Silver Fox subdivision. A street containing an 8-inch sewer line will be stubbed to the property line of the Jessie Court property.

The Tri-City County Service District provides sewage transmission and treatment services to the cities of Oregon City, West Linn and Gladstone. Each city owns and maintains its own local sewage collection system. The District owns and maintains the sewage treatment plant and interceptor system. The three cities are in the District and as provided in the intergovernmental agreement between the District and the City, the District does not serve territories outside Oregon City, with one exception.

Before January 1, 1999, state statute (ORS 199) provided that when territory was annexed to a city that was wholly within a district, the territory was automatically annexed to the district as well. That statute no longer applies in this area. Therefore, each annexation to Oregon City needs to be followed by a separate annexation of the territory to the Tri-City Service District.

11. The adjacent property to the north is being developed as the Silver Fox subdivision. A street containing an 8-inch water line will be stubbed to the property line of the Jessie Court property. Clackamas River Water has a 6-inch water line in Jessie Court which would be joined to the proposed 8-inch line with an extension through the Jessie Court property.

The area to be annexed is in the Clackamas River Water District. Oregon City and the District have agreements for the transition of water systems from the District to the City as the City expands. They have agreed to jointly use certain of the District's mains and they jointly financed some mains crossing through unincorporated areas. They also agreed that the territory within the City's urban services boundary would receive all urban services from the City. In many places the District's water lines were too small to serve urban levels of development. In those places, such as in Central Point Road, the City has extended larger City water mains to serve the planned-for urban development. Under the agreement, new connections of City territory are City customers. Where the District has adequate size water lines (which were identified in an agreement) the District's lines will transfer to the City when the City has annexed 75% of the frontage on both sides of specified water lines. Under the Agreement, Oregon City can withdraw territory from the District when the City provides direct water service to an area.

Oregon City, with West Linn, owns the water intake and treatment plant, which the two cities operate through a joint intergovernmental entity known as the South Fork Water Board (SFWB). The ownership of the Board is presently divided with Oregon City having 54 percent and West Linn 46 percent ownership of the facilities.

The water supply for the South Fork Water Board is obtained from the Clackamas River through an intake directly north of the community of Park Place. Raw water is pumped from the intake up to a water treatment plant located within the Park Place neighborhood. The treated water then flows south through a pipeline and is pumped to a reservoir in Oregon City for distribution to both Oregon City and West Linn. The SFWB also supplies surplus water to the Clairmont Water District portion of the Clackamas River Water District.

Both the river intake facility and the treatment plant have a capacity of twenty million gallons per day (MGD). There is an intertie with Lake Oswego's water system

that allows up to five MGD to be transferred between Lake Oswego and SFWB (from either system to the other).

Oregon City has four functional reservoirs with a capacity of 16.0 million gallons, which is adequate to serve the City through the Water Master Plan planning period to year 2015 if other systems are not supplied.

12. The adjacent property to the north is being developed as the Silver Fox subdivision. A street containing an 12-inch stormwater line will be stubbed to the property line of the Jessie Court property. This line will be continued through the subject property when the street stub from the Silver Fox subdivision is extended to connect with Jessie Court.

13. This territory is currently within Clackamas County R.F.P. D. # 1. The Oregon City Fire Department provides service within the City under a contract with the Tualatin Valley Fire and Rescue District. A portion of the City's property tax levy goes toward payment of this service. Oregon Revised Statute 222.120 (5) allows the City to specify that the territory be automatically withdrawn from Clackamas County RFPD #1 upon approval of the annexation.

14. The Clackamas County Sheriff's Department currently serves the territory. Subtracting out the sworn officers dedicated to jail and corrections services, the County Sheriff provides approximately .5 officers per thousand population for local law enforcement services.

The area to be annexed lies within the Clackamas County Service District for Enhanced Law Enforcement, which provides additional police protection to the area. The combination of the county-wide service and the service provided through the Enhanced Law Enforcement CSD results in a total level of service of approximately 1 officer per 1000 population. According to ORS 222.120 (5) the City may provide in its approval ordinance for the automatic withdrawal of the territory from the District upon annexation to the City. If the territory were withdrawn from the District, the District's levy would no longer apply to the property.

Upon annexation the Oregon City Police Department will serve the territory. Oregon City fields approximately 1.04 officers per 1000 population. The City is divided into three patrol districts with a four-minute emergency response and a twenty-minute non-emergency response time.

15. The City wishes to move forward towards development of this site as a Community/Neighborhood Park. Annexation will allow the City do the master planning of the park using City standards.

16. Access is provided from Jessie Court and will also be provided by the street which is being developed in the Silver Fox Subdivision adjacent on the north. That street is proposed to be extended through the Park to connect with Jessie Court.

17. Planning, building inspection, permits, and other municipal services will be available to the territory from the City upon annexation.

CONCLUSIONS AND REASONS FOR DECISION

Based on the Findings, the City Commission determined:

1. City staff noted that on a previous nearby annexation a piece of road right-of-way (Haven Road) was not included and is now completely surrounded by the City. The City engineering staff asked if that piece of R-O-W could be included in the current proposal in order to avoid doing a separate annexation proposal just to annex the short stretch of Haven Road. Nothing in the statutes or rules on annexation would prevent this. The Commission determined that inclusion of the short stretch of Haven Road which is entirely surrounded by the City is appropriate and hereby adds the piece of right-of-way to this annexation.

2. The Metro Code calls for consistency of the annexation with the Regional Framework Plan or any functional plan. Because there were no directly applicable criteria for boundary changes found in the Regional Framework Plan, the Urban Growth Management Function Plan or the Regional Transportation Plan (see Finding No. 5) the Commission concludes the annexation is not inconsistent with this criterion.

3. Metro Code 3.09.050(d)(1) requires the Commission's findings to address consistency with applicable provisions of urban service agreements or annexation plans adopted pursuant to ORS 195. As noted in Finding No. 9 there are no such plans or agreements in place. Therefore the Commission finds that there are no inconsistencies between these plans/agreements and this annexation.

4. The Metro Code, at 3.09.050(d)(3), requires the City's decision to be consistent with any "directly applicable standards or criteria for boundary changes contained in comprehensive land use plans and public facilities plans." The Commission concludes this annexation is consistent with the very few directly applicable standards and criteria in the Clackamas County Comprehensive Plan.

   This annexation would "encourage development in areas where adequate public

services and facilities can be provided in an orderly and economic way." The Commission considered the four conversion criteria in Policy 6.0. As Findings 10 through 17 show, all public facilities are available to serve this site.

4. The Commission concludes that the annexation is consistent with the City's Plan. The property must have urban services available before it can be developed as a park. The full range of urban services, particularly sanitary sewer service can only be obtained from Oregon City after annexation. (Policy 3, Chapter I). As the Findings on facilities and services demonstrate, the City has urban facilities and services available to serve the property.

5. The Commission notes that the Metro Code also calls for consistency of the annexation with urban planning area agreements. As stated in Finding No. 6, the Oregon City-Clackamas County Urban Growth Management Agreement specifically provides for annexations by the City.

6. Metro Code 3.09.050(d)(5) states that another criterion to be addressed is "Whether the proposed change will promote or not interfere with the timely, orderly and economic provision of public facilities and services." The Commission concludes that the City's services are adequate to serve this area, based on Findings 10 through 17 and that therefore the proposed change promotes the timely, orderly and economic provision of services.

7. The City may withdraw the territory from the Clackamas River Water District at a future date, consistent with the terms of agreements between the City and the District.

8. The Oregon City Code contains provisions on annexation processing. Section 6 of the ordinance requires that the City Commission consider seven factors if they are relevant. These factors are covered in Finding # 8 and on balance the Commission believes they are adequately addressed to justify approval of this annexation.

9. The City may specify in its annexation Ordinance that the territory will be simultaneously withdrawn from Clackamas RFPD #1. The City desires that all of the City receive the same fire service and therefore determines that the territory should be simultaneously withdrawn from the Fire District.

10. The City may specify in its annexation Ordinance that the territory will be simultaneously withdrawn from the Clackamas County Service District for Enhanced Law Enforcement. The City desires that all of the City receive the same police service and therefore determines that the territory should be simultaneously withdrawn from the Enhanced Law Enforcement District . Upon annexation the City's Police Department will be responsible for police services to the annexed territory.

SISUL ENGINEERING

A Division of Sisul Enterprises, Inc.

375 PORTLAND AVENUE, GLADSTONE, OREGON 97027
(503) 657-0188
FAX (503) 657-5779

May 4, 2001

City of Oregon City
PO Box 3040
Oregon City, OR 97045-0304

ATTN Barbara Shields

RE: Zone change request for Sunnyside Construction & Development; J.O. 93-060A
City of Oregon City File #ZC00-02

Dear Ms. Shields:

As per your request I spoke with Bruce Ament, President of Sunnyside Construction and Development, about the zone change request application. Mr. Ament has instructed me to provide you this letter.

Sunnyside Construction and Development hereby requests that its zone change application (ZC00-02) be withdrawn from further consideration.

Should there be questions about this, please feel free to give me a call.

Sincerely,

Thomas J. Sisul, P.E.

TJS/lac
pc: Bruce Ament, Sunnyside Construction & Development
Mary Johnson, Attorney at Law
fax: City of Oregon City