TUALATIN CITY COUNCIL
AND
TUALATIN DEVELOPMENT COMMISSION
Monday, April 27, 2009

City Council Chambers
18880 SW Martinazzi Avenue, Tualatin, Oregon

WORK SESSION begins at 5:30 p.m.

REGULAR MEETING begins at 7:00 p.m.

Mayor Lou Ogden

Council President Chris Barhyte
Councilor Ed Truax
Councilor Monique Beikman
Councilor Joelle Davis
Councilor Jay Harris
Councilor Donna Maddux

WELCOME! By your presence in the City Council Chambers, you are participating in the process of representative government. To encourage that participation, the City Council has specified a time for citizen comments on its agenda – Item C, following Presentations, at which time citizens may address the Council concerning any item not on the agenda, with each speaker limited to three minutes, unless the time limit is extended by the Mayor with the consent of the Council.

Copies of staff reports or other written documentation relating to each item of business referred to on this agenda are available for review on the world wide web at www.ci.tualatin.or.us, at the Library located at 18878 SW Martinazzi Avenue, and are also on file in the Office of the City Manager for public inspection. Any person who has any question concerning any agenda item may call Administration at 503.691.3011 to make an inquiry concerning the nature of the item described on the agenda.

In compliance with the Americans With Disabilities Act, if you need special assistance to participate in this meeting, you should contact Administration at 503.691.3011 (voice) or 503.692.0574 (TDD). Notification thirty-six (36) hours prior to the meeting will enable the City to make reasonable arrangements to assure accessibility to this meeting.

Council meetings are televised "live" on the day of the meeting on Washington County Cable Access Channel 28. The replay schedule for Council meetings can be found at www.tvctv.org.

Your City government welcomes your interest and hopes you will attend the City of Tualatin City Council meetings often.

- SEE ATTACHED AGENDA -

PROCESS FOR LEGISLATIVE PUBLIC HEARINGS

A "legislative" public hearing is typically held on matters which affect the general welfare of the entire City rather than a specific piece of property.

1. The Mayor opens the public hearing and identifies the subject.
2. A staff member presents the staff report.
3. Public testimony is taken.
4. The Council then asks questions of staff, the applicant or any member of the public who testified.
5. When the Council has finished its questions, the Mayor closes the public hearing.
6. When the public hearing is closed, Council will then deliberate to a decision and a motion will be made to either approve, deny, or "continue" the public hearing.

PROCESS FOR QUASI-JUDICIAL PUBLIC HEARINGS

A "quasi-judicial" public hearing is typically held for annexations, planning district changes, variances, conditional use permits, comprehensive plan changes, and appeals from subdivisions, partitions and architectural review.

1. The Mayor opens the public hearing and identifies the case to be considered.
2. A staff member presents the staff report to the Council.
3. Public testimony is taken:
    a) In support of the application
    b) In opposition or neutral
4. The Council then asks questions of staff, the applicant or any member of the public who testified.
5. When the Council has finished its questions, the Mayor closes the public hearing.
6. When the public hearing is closed, Council will then deliberate to a decision and a motion will be made to either approve, approve with conditions or deny the application, or "continue" the public hearing.

TIME LIMITS

The purpose of time limits on public hearing testimony is to provide all interested persons with an adequate opportunity to present and respond to testimony. All persons providing testimony **shall be limited to 10 minutes**, subject to the right of the Mayor to amend or waive the time limits.

EXECUTIVE SESSION INFORMATION

Executive session is a portion of the Council meeting that is closed to the public to allow the Council to discuss certain confidential matters. No decisions are made in Executive Session. The City Council must return to the public session before taking final action.

The City Council may go into Executive Session under the following statutory provisions to consider or discuss: *ORS 192.660(2)(a)* the employment of personnel; ORS *192.660(2)(b)* the dismissal or discipline of personnel; *ORS 192.660(2)(d)* labor relations; *ORS 192.660(2)(e)* real property transactions; *ORS 192.660(2)(f)* non-public information or records; *ORS 192.660(2)(g)* matters of commerce in which the Council is in competition with other governing bodies; *ORS 192.660(2)(h)* current and pending litigation issues; *ORS 192.660(2)(i)* employee performance; *ORS 192.660(2)(j)* investments; or *ORS 192.660(2)(m)* security issues. **All discussions within this session are confidential**. Therefore, nothing from this meeting may be disclosed by those present. News media representatives are allowed to attend this session (unless it involves labor relations), but shall not disclose any information discussed during this session.

OFFICIAL AGENDA OF THE TUALATIN CITY COUNCIL FOR APRIL 27, 2009

A. CALL TO ORDER

Pledge of Allegiance

B. PRESENTATIONS, ANNOUNCEMENTS, SPECIAL REPORTS

Page #

1. New Employee Introduction: Finance Program Coordinator *Lisa Thorpe*
2. Accreditation Presentation - *Police Chief Barker and Mr. Joe Simon*
3. Recognition of Police Chief Barker for receiving the Paul Nagy Award
4. Proclamation Proclaiming the Week of May 10-16, 2009 as "National Historic Preservation Week" in the City of Tualatin 5
5. Tualatin Tomorrow Presentation: Growth, Housing, Town Center

C. CITIZEN COMMENTS

This section of the agenda allows citizens to address the Council regarding any issue not on the agenda. The duration for each individual speaking is limited to 3 minutes. Matters requiring further investigation or detailed answers will be referred to City staff for follow-up and report at a future meeting.

D. CONSENT AGENDA *(Item Nos. 1 – 5)*

Page #

The Consent Agenda will be enacted with one vote. The Mayor will first ask the staff, the public and the Councilors if there is anyone who wishes to remove any item from the Consent Agenda for discussion and consideration. The matters removed from the Consent Agenda will be considered individually at the end of this Agenda under "Items Removed from the Consent Agenda." At that time, any member of the audience may comment on any item pulled from the Consent Agenda. The entire Consent Agenda, with the exception of items removed to be discussed under "Items Removed from the Consent Agenda," is then voted upon by roll call under one motion.

1. Approval of the Minutes for the Work Session and Meeting of April 13, 2009 6
2. Approval of 2009 Liquor License Renewal Late Submittal – Nacho Mama's Mexican Restaurant 17
3. Approval of a New Liquor License Application for 501 Sports Café & Bar 18
4. Resolution No. 4877-09 Amending the City of Tualatin Fee Schedule and Rescinding Resolution No. 4857-09 20
5. Resolution No. 4878-09 Authorizing Mayor Ogden to Sign a Memorandum of Understanding Between the City and the Stafford Hamlet 27

E. PUBLIC HEARINGS – *Legislative or Other*

~~1. Conditional Use Permit for the Stafford Hills Racquet & Fitness Club (SHR&F Club) as a .....32 Private Club Use and for Additional Building Height in the Low-Density Residential (RL) Planning District at 5916 SW Nyberg Lane (Tax Map 21#19C, Tax Lot 900) (CUP-09-01)~~

~~Resolution No. _____ Granting a Conditional Use Permit for the Stafford Hills Racquet & Fitness Club as a Private Club Use and for Additional Building Height in the Low-Density Residential (RL) Planning District at 5916 SW Nyberg Lane (Tax Map 21E19C, Tax Lot 900) (CUP-09-01)~~

F. PUBLIC HEARINGS – *Quasi-Judicial*

1. Conditional Use Permit for the Stafford Hills Racquet & Fitness Club (SHR&F Club) as a .....32 Private Club Use and for Additional Building Height in the Low-Density Residential (RL) Planning District at 5916 SW Nyberg Lane (Tax Map 21E19C, Tax Lot 900) (CUP-09-01)

   [CONTINUED to May 26, 2009]

   Resolution No. - - - - Granting a Conditional Use Permit for the Stafford Hills Racquet & Fitness Club as a Private Club Use and for Additional Building Height in the Low-Density Residential (RL) Planning District at 5916 SW Nyberg Lane (Tax Map 21E19C, Tax Lot 900) (CUP-09-01)

G. GENERAL BUSINESS *(Item No. 1)*

1. Resolution No. 4879-09 Authorizing Renaming the Tualatin/Durham Senior .....371 Center to the Juanita Pohl Center

H. ITEMS REMOVED FROM CONSENT AGENDA

Items removed from the Consent Agenda will be discussed individually at this time. The Mayor may impose a time limit on speakers addressing these issues.

I. COMMUNICATIONS FROM COUNCILORS

J. EXECUTIVE SESSION

K. ADJOURNMENT

CITY COUNCIL SIGN-UP SHEET

DATE: April 27, 2009 - pg. 1

PLEASE COMPLETE TO GIVE TESTIMONY

LIMIT TESTIMONY TO THREE MINUTES

	(PLEASE PRINT CLEARLY) Name	Address	E-mail	Representing	Agenda Item(s) or Citizen Comments
1.	Bill Leong	USTA Pacific NW 4840 SW Western Ave	Bill@PNW.USTA.com	United States Tennis Asso.	
2.	Brent Schafer	19007 SW Chesapeake Tualatin, OR 97062	bschafer@toddconstruction.com		
3.	Julie Sepp	19065 SW Mobile Pl Tualatin	jlsepp@hotmail.com	Fox	
4.	Doug Rasmussen	19025 S.W. Mobile Pl. Tualatin	lilrass@msn.com	Fox Hollow	
5.	Angela Wrahtz	19155 SW Mobile Pl. Tualatin	angela.wrahtz@comcast.net	Fox Hill	
6.	Sarah Goehler		goehlerfam@comcast.net	self	
7.	~~Jean Nations~~ Jean Nations	~~Hall~~	hjnations@hotmail.com	Clean A Maniacs	
8.	TOM MEIER	7255 SW CUSHMAN ST PORTLAND	CASSIR00@COMCAST.NET	SELF	

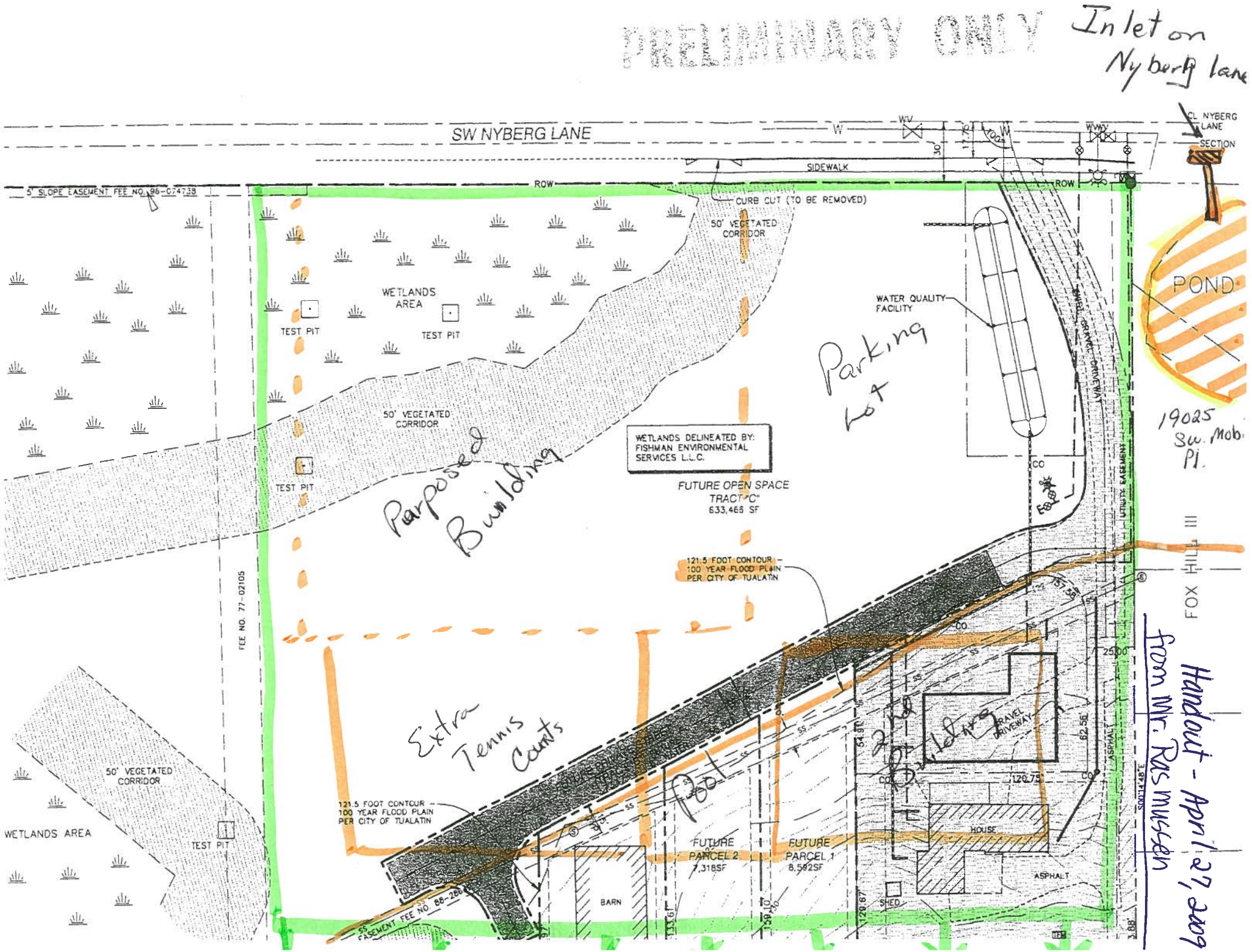
CITY COUNCIL SIGN-UP SHEET

DATE: April 27, 2009 - pg 2

PLEASE COMPLETE TO GIVE TESTIMONY

LIMIT TESTIMONY TO THREE MINUTES

	(PLEASE PRINT CLEARLY) Name	Address	E-mail	Representing	Agenda Item(s) or Citizen Comments
1.	Beth Rosen	22782 SW 107 Tualatin OR		Tualatin Tomorrow	AI
2.	MARK COOLICAN	Mobile		self	
3.	SUSAN BLOTZER	Mobile		self	
4.	Kim Hay	2145 Estmere Rd WL		Cascadia Swimming	
5.					
6.					
7.					
8.					


PRELIMINARY ONLY
Inlet on Nyberg Lane
SW NYBERG LANE
CL NYBERG LANE SECTION
SIDEWALK
ROW
5' SLOPE EASEMENT FEE NO. 96-074738
CURB CUT (TO BE REMOVED)
50' VEGETATED CORRIDOR
WETLANDS AREA
TEST PIT
TEST PIT
TEST PIT
50' VEGETATED CORRIDOR
WETLANDS DELINEATED BY: FISHMAN ENVIRONMENTAL SERVICES L.L.C.
FUTURE OPEN SPACE TRACT "C" 633,465 SF
WATER QUALITY FACILITY
POND
GRAVEL DRIVEWAY
UTILITY EASEMENT
Parking Lot
Purposed Building
19025 SW Mobl Pl.
FOX HILL III
121.5 FOOT CONTOUR 100 YEAR FLOOD PLAIN PER CITY OF TUALATIN
FEE NO. 77-02105
Extra Tennis Courts
50' VEGETATED CORRIDOR
WETLANDS AREA
TEST PIT
121.5 FOOT CONTOUR 100 YEAR FLOOD PLAIN PER CITY OF TUALATIN
FUTURE PARCEL 2 7,318SF
FUTURE PARCEL 1 8,582SF
BARN
SS EASEMENT FEE NO. 88-28
GRAVEL DRIVEWAY
HOUSE
ASPHALT
SHED
ASPHALT
Handout - April 27, 2009 from Mr. Rasmussen

Handout - 4/27/2009

pg 1 of 3

April 27, 2009 DELIVERED TO MEMBERS AT COUNCIL MEETING

To: City Council of Tualatin
FR: Angela Wrahtz, 19155 SW Mobile Place, Tualatin
RE: Zupancic's STAFFORD HILLS RACQUET & FITNESS CLUB Proposal

Having read the Application by Zupancic posted on the City of Tualatin website, I find I have a number of concerns and objections to enter into the record and be considered.

I am requesting that Zupancic's application NOT be voted on this evening but the record be held open for further review. I am speaking for myself and other neighbors who have contacted me by phone and email.

Objections to the project based are on:

I. **The project does not meet all of the approval criteria of the Tualatin Development Code, Requirement #4** (p. 65 of application)**: "The Proposed Use Will Not alter the Character of the Surrounding Area in Any Manner that Substantially Limits, Impairs, or Precludes the Use of Surrounding Properties for the Primary Uses Listed." <u>This requirement is not met because the project, if completed, will:</u>**

A. **Disrupt and interfere with the normal use of one's home along the Westside of SW Mobile Place.** Noise pollution will impair ability of neighbors to sleep/rest during early morning and evening hours because of the proposed hours of operation. Just one motorcycle on the Kozlowsky property is enough to make our windows vibrate. This is a tangible fact. Hours of operation are in conflict with homeowner/residents who bought their properties with certain assumptions about being part of a residential neighborhood with non-commercial levels of quiet and privacy around them. Homeowners did not purchase property here to be adjacent to a business operation with numerous cars, alarms, doors slamming, etc.

B. **Limits and impairment to resale value of properties along Westside of SW Mobile Place.** "The purpose and intention of The Conditional Uses Chapter 32.010" exists to give a "provision for protection of community and adjacent properties." The "welfare of adjacent properties" will be negatively impacted by a large recreational facility which is noisy, creates traffic and parking problems, and comes nearly to the fence-line with an extremely small buffer. Property owners have a right to equal opportunity for property values to be maintained or appreciating along with the rest of the neighborhood. The planned development damages this opportunity for some people since potential buyers who wish to move to Fox Hill will decline to purchase properties on the Westside of SW Mobile Place unless the selling price is substantially reduced.

C. **Although it is being billing as a neighborhood rec center, Zupancic's plan is for a regional facility.** Zupancic is selling the idea of community appeal but all of his support statement are from people who live outside of the area, excepting

the Reiss' who having been trying to sell their home for a year and only recently pulled it off the market for a breather. As much as they seem to love the idea, they don't seem to want to live next to it either.

D. **Quality of Life (Human and Wild) will be damaged due to the extreme increase in traffic and parking problems carrying over into the surrounding neighborhood.**

- The traffic study conservatively estimates that 1010 net new trips will be made along Nyberg Lane. How can this not create a huge backup on the left turn lane onto Nyberg Lane at SW 65th where there is only room for seven cars to wait for the arrow? Getting home from work will change dramatically in the negative. The intense detail of the 100+ page traffic study shows upwards of 900 vehicles per hour exiting I-5 into our direction during peak PM hours. There are backups in the morning and evening and wait times to get in and out are already slow.

- The proposed Tennis Club includes only 131 parking spaces. If the maximum capacity for the 10 courts is 40 people (4 per court x 10 courts) and fitness machines (how many will there be?) will probably net another 10 people, and the sizeable staff will also require parking, and the pool will attract how many people? There was no discussion of maximum capacity for the facility. There was over optimistic projection about neighbors walking up to the facility (trust me, they'll be driving) and the parking lot looks inadequate for the size and scope of the facility. So, if the parking spaces run out, where will the members and guests park? At Browns Ferry Park? Wouldn't that limit and impair people using Browns Ferry Park? Yes, and the entire area will become more dangerous for pedestrians with children and pets, and also the wildlife who cross and nest.

II. Another criterion NOT met. . .General Growth Objectives – TDC 4.050 call for "providing an orderly transition" from rural to urban" environment.

- The planned ten foot green buffer (tall trees) between Zupancic's parking lot and our fence/property lines is too small. A ten foot green zone between a residential backyard where Sunday barbeques or quiet reading take place on one's deck and a highly active parking lot with 100 members and employees coming and going every hour of the day from early AM to late PM is not an orderly or adequate transition. ***Realistically, the buffer needs to be at least 35 feet.***

III. (p. 314 of the application) **Discusses TDC 40.030 (4) (l and n), building heights and conditional uses and requires "not less than 1 ½ times" the height of a building being the distance between it and the end of the setback.** If the AC/Tennis Alley is 40 feet high, then a 60 foot setback is required. While the Clubhouse is setback

approximately 180 feet, the AC/Tennis Alley "wing" is not. **This condition is NOT met because there is no consistent presentation in the plan:**

- (p. 42 of application) shows only a 45 foot setback between the Activity Center/Tennis Alley and the property line.
- (p. 320 of appl. On the CUP-09-01) discusses "Area East" and "a setback of approximately 50 feet.)
- (p. 322 on the CUP-09-01) discusses "a setback of ***approximately*** 60 feet" for the same location.

IV. **Zupancic's application says his "Plan is consistent with TDC objectives for growth, etc., because of the opportunity for expanded park uses." Metro's Nature in the Neighborhoods objective (p. 76 of the application) is cited. Zupancic says his project provides an opportunity for the City to double the size of Browns Ferry Park. This is conjecture.**

- The Disposition and Development Agreement (cited p. 299 of the application, Attachment D, section 12) does not fully delineate the nature of discussions regarding manner and cost of transfer. In numerous places in his application, Zupancic suggests that the 10+ unbuildable acres be "acquired by the City." It seems clear Zupancic sees the transfer of land as part of his Business Plan and a plus on his balance sheet.

- Numerous residents would like to see the City purchase the entire Tax Lot 900 outright and preserve it as green space. Do some of us want our tax dollars to go into Zupancic's pockets to relieve him of unbuildable/liability land while we are seeing our property values decline? NO. At the very least, the City of Tualatin ought to require, in consideration of its approval, that the 10+ wetland/future park acreage be conveyed gratis—i.e., free—to the City.

In conclusion, the planned project keeps growing and seems in conflict with the surrounding area because it is just too big for the space. The project does not meet all of the approval criteria of the Tualatin Development Code, namely Requirement #4 because of impairments to livability from noise and other pollution and, hence, impairments to property value of fence line neighbors. Many of the impairments are due to a small buffer zone and short setback. There is no adequate transition from the east property line residential neighborhood to planned commercial site. Substantial traffic and parking issues remain which will negatively impact the entire community near to the property in question. Traffic and parking issues conflict with expanded park creation ideas which seem to be costly for the City at large given Zupancic wishes to *sell* 10+ acres to Tualatin rather than donate them to the public domain.

Please hold off on approval of this project until some of these design problems can be addressed.

Thank you.

Public Hearing: April 27, 2009

Conditional Use application; Nyberg Lane

1. Purpose
    a. Bring forward concerns regarding Conditional Use Application
    b. Identify options.
2. Areas of Concern and Options
    a. TDC section 40.030 Conditional Uses Permitted.
        i. Sub. 4(l) "Golf club, country club, private club."
            1. Language is overly broad, basically allowing any concern access to an RL district as long as they require paid membership. Anything from a gentlemans club to a Cosco.
            2. *If use is granted for this athletic club it should be stipulated that any operation under this particular allowance must be an athletic club. Prevent other types of private clubs from taking ownership of the property at some future time.*
    b. TDC section 40.080 Setback requirements for Conditional Use.
        i. Sub (1) "…However, no set back greater than 50 ft can be required. Off street parking and vehicular circulation areas shall be set back a minimum of ten feet from any public right of way or property line."
            1. The developer currently is meeting the minimum requirement of 10 ft.
            2. *This project will substantially alter the characteristic of the neighborhood and the primary use of the planning district. As such the setback should be a minimum of 35 ft to insure a lower impact on the environmental quality of adjacent properties. This should have minimum impact on the developer's plans.*
    c. TDC section 40.100 Structure Height
        i. "Except as otherwise permitted, the maximum structure height is 35 ft."
            1. The proposal indicates a 38 ft building height.
                a. *This is another reason supporting the expanded buffer area.*
    d. TDC section 32.010 Purpose and Intent
        i. Sub (1) "…maintain adequate provision for the protection of the health, safety convenience and general welfare of the community and adjacent properties;…."
            1. Water Treatment—it's assumed chlorine will be used for treatment. This is a hazardous material. Chlorine leaks at swimming pool complexes are well documented. This has the potential to be a safety and health hazard.
            2. *TVF&R should be contacted to review the amount of chlorine which can safely be stored on site and whether an Emergency Evacuation plan is required.*

e. TDC section 32.030 Criteria for review of Conditional uses.
    i. Sub (4) "The proposed use will not alter the character of the surrounding area in any manner that substantially limits, impaires or precludes the use of surrounding properties for the primary uses listed in the underlying planning district.
        1. The proposal creates a commercial enterprise in the midst of Low Density Residential district adjacent to a wetlands area. It's arguable whether the proposal meets the requirement set forth above.
        2. *However, if the council decides it meets the test, then based on the unique aspects of the location, I would hope that the city would require the developer to meet the highest standards of environmentally sound building practices as provided by the "2009 Platinum Leed" certification.*

f. TDC section 32.040 Authority and City Council Action.
    i. "...In permitting a conditional use the City Council may impose, in addition to the regulations and standards expressly specified in this chapter, other conditions found necessary to protect the best interests of the surrounding property or neighborhood or City as a whole. The conditions may include requirements....limiting the coverage or heath of a building...limiting the hours of operation...requiring sight obscuring fencing and landscaping....and requiring any future enlargement or alteration of the use to be reviewed by the City Council.
        1. In the event that this conditional use is approved I ask the council to use this authority to address the above listed concerns and those concerns of property owners who border the development property.

FAQ

LEED for New Construction

What is LEED for New Construction?
LEED for New Construction and Major Renovations is a rating system for buildings that was designed to guide and distinguish high performance buildings that have less of an impact on the environment, are healthier for those who work and/or live in the building, and are more profitable than their conventional counterparts.

The LEED for New Construction Rating System can be applied to commercial, institutional and high-rise residential projects, with a focus on office buildings. Practitioners have also applied the system to K-12 schools, multi-unit residential buildings, manufacturing plants, laboratories and many other building types.

How does LEED for New Construction work?
LEED for New Construction is a performance-oriented rating system where building projects earn points for satisfying criterion designed to address specific environmental impacts inherent in the design, construction, operations and management of a building.

The LEED certification system is organized into five environmental categories: Sustainable Sites (SS), Water Efficiency (WE), Energy and Atmosphere (EA), Materials and Resources (MR) and Indoor Environmental Quality (IEQ). An additional category, Innovation in Design (ID), addresses sustainable building expertise as well as design measures not covered under the five environmental categories. The number of points the project earns determines the level of LEED Certification the project receives. LEED certification is available in four progressive levels according to the following scale:

What is the point breakdown for LEED for New Construction?
LEED for New Construction ratings are awarded according to the following scale:

There are 100 base points; 6 possible Innovation in Design and 4 Regional Priority points

Certified 40–49 points
Silver 50–59 points
Gold 60–79 points
Platinum 80 points and above

What are the benefits of LEED for New Construction?
LEED for New Construction offers many benefits including environmental, economic, and occupant-oriented performance and health advantages. LEED certified projects cost less to operate and maintain, are energy- and water-efficient, have higher lease-up rates than conventional buildings in their markets, and contribute to occupant health and productivity.

Why would a building choose to get LEED Certified?
LEED certification is an achievement that signifies that the building is designed and is operating exactly as it was intended. LEED certification is third party verification from the U.S. Green Building Council (USGBC) that helps owners can measure and manage their properties. LEED Certification is very similar the nutrition label on packaged foods – it is information about the building that will help guide decision making.

Who should use LEED for New Construction?
LEED for New Construction was designed primarily for new construction office buildings, but it has been applied to many other building types. Commercial occupancies include (but are not limited to) offices, retails and service establishments, institutional buildings (libraries, schools, museums, places of worship, etc.), hotels and residential buildings of four or more stories.

Will Harper

WRAHTZ EMAIL — NOT IN STAFF REPORT AT THIS TIME. WH

From: Doug Rux
Sent: Tuesday, April 14, 2009 8:18 PM
To: Will Harper; TONY DORAN
Subject: Fw: Concerns about Zupancic's application

See below

-----Original Message-----
From: Angela Wrahtz <angela.wrahtz@comcast.net>
To: Doug Rux
Sent: Tue Apr 14 19:50:06 2009
Subject: Concerns about Zupancic's application

April 14, 2009

To: Mr. Doug Rux, Community Development Director, The City of Tualatin

From: Angela Wrahtz, Fox Hills Resident, 19155 SW Mobile Pl., Tualatin OR 97062

Re: Zupancic's Tennis Club Proposal for property located

at 5916 SW Nyberg Lane, Tualatin

Dear Mr. Rux,

I have concerns about Mr. Zupancic's large scale project and potential damaging effects on my property value and quality of life and that of the neighboring residences. The application he submitted to the City is quite different than the initial concept. Zupancic wishes to optimize the buildable portion of the property almost straight up to the fence-line, which makes sense for him, but will harm quality of life and resale values for all the other fence-line neighbors. I will lay out my problem with the plan and offer some amendments or conditions that I'd like the City to enforce below.

In a nutshell, the problem is essentially one of buffers, setbacks, transitional space, and/or adequate barriers between a large-scale business operation and a higher-end residential subdivision.

Specifically, there are 4 areas of concern:

1. Irreplaceable Mature Trees & Visual Barrier. Discussions with Zupancic about the necessary grading of the land suggest that many large, old large trees will be removed. New trees in other areas will not replace the existing trees some of which are several hundred years old and frankly irreplaceable. The tree canopies provide, besides their natural beauty, a living environment for birds/small animals, good noise blocks from traffic on I-5 & SW 65th, and excellent visual barriers for the neighboring residents. Their root systems aid in absorption of rain and water runoff from the hillside. Eliminating certain trees creates a problem that leaving them there solves.

- Increase Setback/Barrier/Transition Space/Buffer to 50 Feet. This includes all buildings, pool, parking lot, and any outdoor activity areas. Since this land is being developed for a commercial use, a larger setback from the existing residences is absolutely necessary and appropriate. The large trees that are near the fence line which would be retained by this approach would contribute positively to creating the kind of buffer or transitional space that is needed to preserve a good visual and provide for quiet.

- Limit Hours of Operations for Outdoor Activities from 8am – 8pm. If the outdoor activities noise (swimming, playground, outdoor tennis, doors up from the indoor courts) can be reduced, only the parking lot noise will be left.

- Relocate and/or Enclose Noisy Facilities Away from Residences. This includes playground, pool and outdoor courts. Aren't there are 15+ acres to contemplate?

In summary, I can see how the majority of the neighborhood would find a high-end tennis club an asset to the community. I also appreciate the complexity and challenge of building on this particular tax lot. I'm not completely opposed to a tennis club being built there, but I have issues with the enormity of it and potential damaging affects to quality of life and property values.

The property in question is zoned Low-Density Residential while the proposed plan in essence is for building and operating a small business (60 employees) with high customer usage which creates a conflict of interest. Being adjacent to this 5 acre recreational facility will necessarily devalue my property's resale value. If I choose to move now, I will have to disclose to any potential buyer Zupancic's plans to develop which would drive away any buyer, unless I sold my property for $100,000 below market value. After construction begins, I will be unable to sell my property. After the tennis club goes in, I will have to settle for selling my property at a reduced value to the rest of the neighborhood because nobody chooses to live next to a noisy commercial operation if they have other choices, which they always do.

Zupancic seems to think that just because the larger community will appreciate having a new recreational opportunity that, therefore, the fence-line neighbors should love it, too. How can we if we endure significant, concrete, tangible losses? Let's mitigate those.

Please carefully consider the negative impacts before approving the Zupancic's application as it is currently written. With certain required improvements/conditions to the plan, it could be an acceptable to all of us.

Thank you very much.

PROCLAMATION

PROCLAIMING THE WEEK OF MAY 10 – 16, 2009 AS
"NATIONAL HISTORIC PRESERVATION WEEK"
IN THE CITY OF TUALATIN

WHEREAS, historic preservation is an effective tool for managing growth, revitalizing neighborhoods, fostering local pride and maintaining community character while enhancing livability; and

WHEREAS, historic preservation is relevant for communities across the nation, urban, suburban, and rural, and for Americans of all ages, all walks of life and all ethnic backgrounds; and

WHEREAS, it is important to celebrate the role of history in our lives and the contributions made by dedicated individuals in helping to preserve the tangible aspects of the heritage that has shaped us as a people; and

WHEREAS, "This Place Matters" is the theme for National Preservation Month 2009, sponsored by the National Trust for Historic Preservation.

BE IT PROCLAIMED BY THE CITY COUNCIL OF THE CITY OF TUALATIN, OREGON that:

Section 1. May 10 – 16, 2009 is proclaimed as National Historic Preservation Week in the City of Tualatin.

Section 2. Tualatin residents are urged to acquaint themselves with the historic resources that represent Tualatin's past and the issues involved in preserving them.

INTRODUCED AND ADOPTED this 27th day of April, 2009.

CITY OF TUALATIN, OREGON

BY _____
Mayor Pro tem

ATTEST:

BY _____
City Recorder

Approved By Tu... City Council
Date April 27, 2009
Recording Secretary J. Burley

STAFF REPORT
CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

FROM: Sherilyn Lombos, City Manager

DATE: April 27, 2009

SUBJECT: APPROVAL OF THE MINUTES FOR THE WORK SESSION AND MEETING OF APRIL 13, 2009

ISSUE BEFORE THE COUNCIL:
The issue before the Council is to approve the minutes for the Work Session and Meeting of April 13, 2009.

RECOMMENDATION:
Staff respectfully recommends that the Council adopt the attached minutes.

FINANCIAL IMPLICATIONS:
There are no financial impacts associated with this item.

Attachments: Minutes

City of Tualatin

www.ci.tualatin.or.us

Approved By Tualatin City Council
Date April 27, 2009
Recording Secretary J Kirby

TUALATIN CITY COUNCIL WORK SESSION MINUTES OF APRIL 13, 2009

PRESENT: Mayor Lou Ogden; Councilors Chris Barhyte, Monique Beikman, Joelle Davis, Jay Harris, Donna Maddux, and Ed Truax, Sherilyn Lombos, City Manager; Brenda Braden, City Attorney; Doug Rux, Community Development Director; Dan Boss, Operations Director; Kent Barker, Police Chief; Don Hudson, Finance Director; Carina Christensen, Assistant to the City Manager; Paul Hennon, Community Services Director; Abigail Elder, Library Manager; Aquilla Hurd-Ravich, Senior Planner; Eric Underwood, Development Coordinator; Maureen Smith, Recording Secretary

ABSENT: None.

[Unless otherwise noted, MOTION CARRIED indicates all in favor.]

A. CALL TO ORDER

Mayor Ogden called the work session to order at 5:05 p.m.

B. PRESENTATIONS, ANNOUNCEMENTS, SPECIAL REPORTS

1. *Urban I Reserves Local Aspirations*

City Manager Sherilyn Lombos said this is the third and last discussion of urban/rural reserves, Tualatin's growth and density aspirations, centered on the Stafford area as well as the Town Center, commercial areas and industrial areas. A final report will be done and distributed to Council prior to the Tualatin Tomorrow Community Event on April 30, 2009.

Senior Planner Aquilla Hurd-Ravich presented a PowerPoint and recapped what has previously been reviewed by Council, such as building trends, addressing capacity inside and outside the planning area, and identifying two potential candidates for urban reserves. A fifty year vision of an urban town center was reviewed by Ms Hurd-Ravich, and potential town center redevelopment. A variety of slides were viewed showing the square footage potential, the uses, such as retail, housing, office and existing buildings, etc. Also included is a "green boulevard", and another characteristic of buildings abutting the right-of-way, not set back.

Commercial/industrial was reviewed and staff explained how the calculations were arrived at. Policy considerations were then reviewed. North Stafford area was reviewed, and it was noted staff decreased the projections to reflect Council's request of less density. South Stafford was also reviewed. Draft conceptual sanitary and water system maps were reviewed, and a table summarizing the projected population growth. Policy considerations were reviewed for the Stafford basin.

Discussion followed on how the expansion of the City of Tualatin could happen in the future in relation to the Stafford area. Frustration was expressed by Council of being mandated by Metro on how and where the population and expansion area will happen. How other cities are handling their density issues were mentioned, and being able to get the data for the proposed density. It was questioned why Tualatin would need to create more density, as other surrounding cities are not considering that. Staff reiterated Council's desire to not have residential neighborhoods be more dense then they currently are.

There was considerable discussion on the designation of rural areas versus urban, designating land as "urban" and the public perception that goes along with that. Council struggled with why Tualatin has to answer the question of what happens in the north Stafford area and justify designating the area as urban reserves.

Council indicated they were all right with the Town Center concept, and commercial / Industrial Area as presented by staff. It was mentioned that the "green" boulevards in the downtown area should have low speeds and be pedestrian-friendly. Council also mentioned keeping housing away from the freeways. River development was also mentioned. Increased building heights were discussed, if designed correctly with good architectural design. Council asked to have a chart comparison on south Stafford, in addition to the north Stafford map chart that has been provided.

Council considered designating a portion of the Stafford area as "undesignated" but concerned whether it puts Tualatin at risk for Metro or other cities making the decision for Tualatin. Council discussed keeping urban reserves at least to the Washington County line (approximately 800 acres), and the area north of I-205 to Tualatin Road (600 acres) as urban reserve. The remaining is 65th to Stafford which is 1600 acres and what to designate for those acres remains. Connectivity and transportation is also a concern. Designating the land as urban reserves for now was determined. There is approximately 2900 gross acres in the Stafford basin.

The work session recessed at 7:00 p.m. and reconvened at 8:50 p.m.

A break was taken from 8:50 p.m. to 8:59 p.m.

Mr. Rux explained how the process has been done thus far, and what needs to take place to pass information on to Metro. Mr. Rux brought Council up to date on the local aspirations process.

Council continued review of discussion held earlier in the evening on the population and density issues in relation to transportation in the Stafford area. It was suggested urban reserve to south side of I-205, and east of I-5 would be enough land to protect the population base to keep current density. Councilor Beikman wanted to note for the record her concern that there will be transportation issues associated with this.

2. *Central Urban Renewal District Capital Project Options*
Community Development Director Doug Rux said there has been a series of discussions on various projects in the Central Urban Renewal District (CURD), and a new issue is the train horn noise mitigation. $4 million is left in the CURD to be spent in two to three years. Mr. Rux said there is not enough funds to do all the projects, and also if Council wants to allocate funds to the train horn noise issue.

City Manager Lombos said the possible scenarios for the train horn noise mitigation could cost anywhere from $500,000 to $1.3 million. Council discussion followed on what could be done with the remaining $2.7 million after the assumption of the allocation of $1.3 million to train horn noise.

After discussion Council decided to not put any funds towards the East Commons project, and to allocate up to $1.3 million for the train horn noise mitigation. The remaining funds to go to the Tualatin-Sherwood Road project, and a gateway into the City. Any remaining funds not spent on the train horn noise project shall be directed to the Tualatin-Sherwood Road project.

3. *Clackamas County Library District Update*
Community Services Director Paul Hennon and Library Manager Abigail Elder were present to give an update on annexation into the Clackamas County Library District for the November 3, 2009 ballot. The next steps would be to negotiate Intergovernmental Agreements (IGA) with Clackamas County officials.

It was asked and decided that Councilor Harris will represent Tualatin in discussions with Clackamas County to negotiate the terms of an IGA. Mr. Hennon said there is voter information to be put together. Discussion followed and Mr. Hennon continued with the timeline and process of placing the issue on the November ballot. Timing on notifying residents of a service level change was also mentioned.

4. *Legislative Session Update*
Assistant to the City Manager Carina Christensen gave a brief update on Tualatin's 2009 legislative priorities. The League of Oregon Cities (LOC) is tracking approximately 1,000 of the 2,700 bills in the legislature. Ms. Christensen distributed a handout on various bills that are being tracked by staff. Staff opposes all of the land use and development bills, except for one as they will have negative impacts on the City's urban renewal districts. Community Development Doug Rux is tracking those bills.

HJR 42 restrictions on adult business bill is scheduled for a public hearing on April 24, 2009 at 1:00 p.m. and Councilor Monique Beikman will be representing Tualatin. There are other bills on local government liquor license renewals, sponsored by the House Committee on Rules.

Also reviewed were Tualatin's opposition to HB 2405 VoIP protocol bill, and HB 2701 prohibiting compensation to Photo Red Light vendors, which will likely die. HB 2229 "Big Look" Committee Recommendations dealing with land use system, amending regional planning regulations, etc. was also briefly reviewed.

Ms. Christensen said in response to Council's direction, to be notified on emerging issues as soon as known.

C. CITIZEN COMMENTS
N/A

D. CONSENT AGENDA
Council reviewed the Consent agenda.

D-1. Approval of the Minutes for the Work Session and Meeting of March 23, 2009

Councilor Beikman noted an error on page 2 of the March 23, 2009 Work Session minutes, during first and second reading of Ordinance No. 1280-09, the poll that was taken noted Councilor Truax absent, which should read *Councilor Harris*.

D-8. Resolution No 4876-09 Accepting Public Improvements for Avery Partition

Councilor Harris noted he will recuse himself from this item during the Consent Agenda portion of the regular meeting, as he was the engineer on the project.

E. PUBLIC HEARINGS – *Legislative or Other*
N/A

F. PUBLIC HEARINGS – *Quasi-Judicial*
N/A

G. GENERAL BUSINESS

1. Ordinance No. 1281-09 Relating to Public Contracts; Creating an Intermediate Procurement Process; and Amending TMC 1-21-070, 1-21-080, and TMC 1-21-110

MOTION by Councilor Maddux, SECONDED by Councilor Harris for a first reading by title only. MOTION by Councilor Maddux, SECONDED by Councilor Harris for a second reading by title only. MOTION CARRIED. The poll was unanimous. MOTION by Councilor Harris, SECONDED by Councilor Beikman to place adoption of the ordinance on the Consent Agenda. MOTION CARRIED.

2. Ordinance No. 1282-09 Delegating Authority for Special Events Parking to the City Manager; and Adding a New Section, 8-3-045 to the Tualatin Municipal Code

MOTION by Councilor Harris, SECONDED by Councilor Truax for a first reading by title only. MOTION by Councilor Harris, SECONDED by Councilor Barhyte for a second reading by title only. MOTION CARRIED. The poll was unanimous. MOTION by Councilor Harris, SECONDED by Councilor Beikman to place adoption of the ordinance on the Consent Agenda. MOTION CARRIED.

3. Ordinance No. 1283-09 Prohibiting Trucks on Certain Streets to Protect Public Safety; Adding New Sections, 8-3-141, 8-3-142, 8-3-145, and 8-3-147 to the Tualatin Municipal Code

MOTION by Councilor Harris, SECONDED by Councilor Barhyte for a first reading by title only. MOTION by Councilor Harris, SECONDED by Councilor Barhyte for a second reading by title only. MOTION CARRIED. The poll was unanimous. MOTION by Councilor Harris, SECONDED by Councilor Maddux to place adoption of the ordinance on the Consent Agenda MOTION CARRIED.

H. ITEMS REMOVED FROM CONSENT AGENDA
None.

I. COMMUNICATIONS FROM COUNCILORS
Councilor Maddux thanked staff for the ordinance on truck routes and said it will be good thing for Tualatin.

J. EXECUTIVE SESSION
None.

K. ADJOURNMENT
The work session adjourned at 10:31 p.m.

Sherilyn Lombos, City Manager

Recording Secretary Maureen Smith

City of Tualatin
www.ci.tualatin.or.us

Approved By Tualatin City Council
Date April 27, 2009
Recording Secretary J Kirby

TUALATIN CITY COUNCIL MINUTES OF APRIL 13, 2009

PRESENT: Mayor Lou Ogden, Councilors Chris Barhyte, Monique Beikman, Joelle Davis, Jay Harris, Donna Maddux, and Ed Truax; Sherilyn Lombos, City Manager; Brenda Braden, City Attorney; Mike McKillip, City Engineer; Doug Rux, Community Development Director; Dan Boss, Operations Director; Kent Barker, Police Chief; Maureen Smith, Recording Secretary

ABSENT: None.

Mayor Ogden called the meeting to order at 7:09 p.m.

[Unless otherwise noted, MOTION CARRIED indicates all in favor.]

A. CALL TO ORDER

Councilor Beikman led the Pledge of Allegiance.

B. PRESENTATIONS, ANNOUNCEMENTS, SPECIAL REPORTS

1. *Vision Action Network Presentation – Karin Kelley-Torregroza, Executive Director*
Executive Director Kelley-Torregroza gave a brief explanation of the Vision Action Network (VAN). It is a private non-profit organization founded to promote and support community-based problem solving through relationship building, planning and implementation processes that coordinate and optimize public, private and individual actions and resources. Ms. Kelley-Torregroza noted that over the past decade, Washington County has seen unprecedented growth and change – both in population and diversity. The Human Rights Council is the result of two years' work by the Vision Action Network and its community partners to respond to the needs of our growing community, and Councilor Davis will be part of the Human Rights Council soon. Ms. Kelley-Torregroza also said Council is invited to the VAN's annual celebration on June 2, 2009, and she thanked Council for their time.

Mayor Ogden moved to the Citizen Comments portion of the agenda.

C. CITIZEN COMMENTS

David Farrell, 10064 SW Chickasaw Court, Tualatin, OR, was present to express his views on the demolition of the old Tualatin Elementary School, and believes it is protected by the Tualatin Development Code. It is one of 25 designated historic sites in Tualatin, and he urged the City Council to reverse their decision.

Jill Anderson, SW Wishram Court, Tualatin, OR, voiced concerns about the I-5/99W Connector project, and expressed concern about the neighborhoods there, and whether citizens can have a say in how this project will look.

Mayor Ogden said much of the process is done in terms of the Regional Transportation Plan (RTP) and there is a long history on the "connector project", which is "dead" at this point. Ms. Anderson asked and Mayor Ogden said there will still be many more opportunities for public input and participation

Frank Bubenik and Candice Kelly, co-chairs, Tualatin Tomorrow vision project, were present to get out to the community, the second annual "Tualatin Tomorrow" event is on Thursday, April 30, 2009, from 5:30 p.m. to 8:00 p.m. at Legacy Meridian Park Hospital Education Center. Mr. Bubenik and Ms. Kelly noted it gives people the chance to meet vision partners, city staff, and others, and to get feedback from citizens to pass back. The event is child-friendly and there will be more information that will be available to the community, and urged citizens to attend the event.

Bethany Wurtz, 11025 SW Wishram Court, Tualatin, OR, said she had an opportunity to meet with Mayor Ogden and Councilor Beikman regarding the I-5/99W connector project. Those that live off Tualatin Road are interested and have been following the project over time. Ms. Wurtz said the concern in the new plan is the addition of the northern arterial to Alternative 7. Ms. Wurtz wanted the City Council to know there are people concerned about that portion of the plan, and suggested that portion of Alternative 7 be revisited.

Joy Basse, 9700 SW Tualatin Road, Tualatin, OR, was present and noted the upcoming *Community Health and Safety Fair*, on Saturday, April 18, 2009 at Tualatin Community Park Senior Center Building and wanted to make certain that rental information flyer will be be part of the display.

B. PRESENTATIONS, ANNOUNCEMENTS, SPECIAL REPORTS *[continued]*

2. *2009 Tualatin Crawfish Festival Update – Chamber of Commerce*
   Linda Moholt, Chamber of Commerce, was present to announce the 59th annual Crawfish Festival. The theme this year is in honor of Oregon's 150th anniversary is *"Crawfish, the Wild, Wild Fest!"* It is held the second weekend in August; this year the dates are Friday, August 7 through Sunday, August 9, 2009.

3. *"Fit City Challenge" Presentation – Linda Moholt, Chamber of Commerce*
   Linda Moholt, Chamber of Commerce, in coordination with the upcoming Community Health and Safety Fair, gave a brief explanation of the "Fit City Challenge", a community level initiative to encourage citizens to increase their physical activities and to eat healthy. An "inaugural walk" will be launched on Saturday, April 18th, 9:00 a.m. at ClubSport. Mayor Ogden will be participating and presenting a proclamation,

4. *Tualatin Youth Advisory Council Update*
   Representatives from the Youth Advisory Council (YAC) were present and reviewed past and upcoming activities and events. The YAC is also participating and assisting with the upcoming "Fit City Challenge" Walk. A short video was also presented on their Project F.R.I.E.N.D.S 2009, and the YAC presented *Earth Day* t-shirts to the City Council.

5. *Proclamation Declaring April 22, 2009 as "Earth Day" in the City of Tualatin*
   Councilor Davis read the proclamation declaring April 22, 2009 as "Earth Day" in the City of Tualatin.

10. *Community Health and Safety Fair Presentation – **this item was moved up on the agenda***
Joe Lipscomb and Candice Kelly, presented information on the second annual Community Health and Safety Fair on Saturday, April 18, 2009. Ms. Kelly explained some of what will be happening at the fair and said it spans all ages. Information on the fair is also available on the City's website. Mr. Lipscomb and Ms. Kelly thanked Council for the opportunity to appear before Council.

6. *Proclamation Declaring April 12 – 18, 2009 as "National Library Week" in the City of Tualatin*
Councilor Harris read the proclamation declaring April 12 – 18, 2009 as National Library Week in the City of Tualatin. Mayor Ogden noted the sizeable increase in circulation from last year, and thanked staff for their effort, and also the volunteers that contribute their time in the library.

7. *Proclamation Declaring April 19 – 25, 2009 as "National Volunteer Week" in the City of Tualatin*
Councilor Barhyte read the proclamation declaring April 19 – 25, 2009 as National Volunteer Week in the City of Tualatin. The Council acknowledged the great effort of its volunteers and the tremendous amount of time given to the community.

8. *Presentation by a Representative of "Our Ocean" Regarding Marine Reserves and Protected Areas*
Diane Lynch, 8495 SW Tygh Loop, Tualatin, OR, volunteer representative from "Our Ocean", a coalition of scientists, biologists, etc. working to preserve Oregon's coastal legacy. Ms. Lynch presented information on marine reserves and distributed information to the Council. Marine reserves are defined as ocean areas fully protected from activities that remove animals and plants or alter habitats, except as needed for scientific monitoring. Ms. Lynch asked Council to consider a resolution supporting this issue. It was asked and Ms. Lynch explained the types of restrictions and how marine reserves are protected. Mayor Ogden thanked Ms. Lynch for her presentation.

9. *Train Horn Noise Mitigation Update*
City Manager Lombos gave an update on the train horn noise issue, and noted a regular update will be given at the first Council meeting of every month.

Ms. Lombos noted the funding that has been directed to Tualatin and TriMet's role in the process. A *wayside horn* demonstration was held on Wednesday, April 8th starting in the early morning hours at various locations in Tualatin. The data collected for a 24 hour time period will be available soon and will give information on possible locations for a wayside horn. Neighborhoods were given observation logs and staff has received a dozen or so and will follow up with a summary on the data collected.

A train horn waiver is also being submitted by TriMet to the Federal Railway Administration (FRA) for a reduction of the decibel level. However, the waiver would only be good for five years, but could be a "quick fix" until something could be done with the quiet zones issue.

Discussion followed on the amount of funding coming from TriMet. TriMet continues to be the lead and Washington County is working with Tualatin, as is Metro on this issue. Allocation of Stimulus Package funds was also discussed, and some concern was expressed by Councilor Harris that a point could be made of using those funds for something other than train horn noise, and he believes that Tualatin should not be putting anymore funding toward this.

Councilor Maddux thanked staff for incorporating this issue into the agenda on an ongoing basis.

Councilor Harris noted and Ms. Lombos said that even though citizens are not always present at every Council meeting on this issue, there is still much interest and providing the updates gives the opportunity to get information out from Council to the community.

D. CONSENT CALENDAR

Items G-1, G-2 and G-3 were placed on the Consent Agenda at Work Session. MOTION by Councilor Harris, *(Councilor Harris recused himself from Item 8)* SECONDED by Councilor Beikman to adopt the Consent Agenda as amended and read:

1. Approval of the Minutes for the Work Session and Meeting of March 23, 2009 *(as amended)*
2. Approval of a New Liquor License Application for El Ranchito Alegre
3. Approval of a New Liquor License Application for Ex Cathedra
4. Approval of a Change of Ownership Liquor License Application for Bush Garden
5. Approval of 2009 Liquor License Renewals Late Submittals
6. Citizen Involvement Committee Appointments
7. Resolution No. 4875-09 Accepting Public Improvements for Murphy Industrial Addition
8. Resolution No. 4876-09 Accepting Public Improvements for Avery Partition

G-1 Ordinance No. 1281-09 Relating to Public Contracts; Creating an Intermediate Procurement Process; and Amending TMC 1-21-070, 1-21-080, and TMC 1-21-110

G-2 Ordinance No. 1282-09 Delegating Authority for Special Events Parking to the City Manager; and Adding a New Section, 8-3-045 to the Tualatin Municipal Code

G-3 Ordinance No. 1283-09 Prohibiting Trucks on Certain Streets to Protect Public Safety; Adding New Sections, 8-3-141, 8-3-142, 8-3-145, and 8-3-147 to the Tualatin Municipal Code

MOTION CARRIED.

E. PUBLIC HEARINGS – *Legislative or Other*

None.

F. PUBLIC HEARINGS – *Quasi-Judicial*

None.

G. GENERAL BUSINESS

The following ordinances had first and second readings and were placed on the Consent Agenda at work session.

1. Ordinance No. 1281-09 Relating to Public Contracts; Creating an Intermediate Procurement Process; and Amending TMC 1-21-070, 1-21-080, and TMC 1-21-110

2. Ordinance No. 1282-09 Delegating Authority for Special Events Parking to the City Manager; and Adding a New Section, 8-3-045 To the Tualatin Municipal Code

3. Ordinance No. 1283-09 Prohibiting Trucks on Certain Streets to Protect Public Safety; Adding New Sections, 8-3-141, 8-3-142, 8-3-145, and 8-3-147 to the Tualatin Municipal Code

H. ITEMS REMOVED FROM CONSENT AGENDA

Items removed from the Consent Agenda will be discussed individually at this time. The Mayor may impose a time limit on speakers addressing these issues.

I. EXECUTIVE SESSION

None.

J. COMMUNICATIONS FROM COUNCILORS

Councilor Beikman noted the upcoming Oregon Liquor Control Commission (OLCC) hearing on Stars on Thursday, April 16, 2009, 9:00 a.m. at their offices in Milwaukie. Councilor Beikman also noted the recent time she spent with the local Tualatin Valley Fire & Rescue (TVF&R) station in Tualatin, and was impressed with their professionalism and efficiency and the City is lucky to have them working for us. Mayor Ogden noted that TVF&R Fire Chief Johnson serves on the International Firefighters Association and the National Association Board.

Councilor Harris noted the Arbor Week activities that took place last week.

Councilor Truax said the recent "Million Doddle" fundraiser was a great success and raised more money for the local dog rescue organization.

Councilor Maddux said on March 24, 2009, funds were raised at a wine tasting event for the Tualatin Food Pantry.

Councilor Davis said she had the pleasure of attending *City Hall Day* at the State Capitol along with staff, and was a great day to get out and meet other government officials.

K. ADJOURNMENT

MOTION by Councilor Harris, SECONDED by Councilor Maddux to adjourn the meeting at 8:49 p.m. MOTION CARRIED.

Sherilyn Lombos, City Manager

Recording Secretary Maureen Smith

Approved By Tualatin City Council
Date April 27, 2009
Recording Secretary J Kirby

STAFF REPORT
CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

FROM: Sherilyn Lombos, City Manager

DATE: April 27, 2009

SUBJECT: APPROVAL OF 2009 LIQUOR LICENSE RENEWALS LATE SUBMITTAL(S)

ISSUE BEFORE THE COUNCIL:
The issue before the Council is to approve liquor license renewal applications for 2009. The businesses listed below submitted their 2009 renewal application too late to be included in the renewals approved at the February 23, 2009 Council meeting. Copies have not been included with this staff report but are available at the City Offices for review.

RECOMMENDATION:
Staff respectfully recommends that the Council approve endorsement of the following liquor license application renewal for 2009:

- Nacho Mama's Mexican Restaurant

EXECUTIVE SUMMARY:
Annually the Oregon Liquor Control Commission (OLCC) requires all liquor licenses be renewed. According to the provisions of City Ordinance No. 680-85, establishing procedures for liquor license applicants, applicants are required to fill out a City application form, from which a review by the Police Department is conducted, according to standards and criteria established in Section 6 of the ordinance. The liquor license renewal applications are in accordance with all ordinances and the Police Department has conducted reviews of the applications.

According to the provisions of Section 5 of Ordinance No. 680-85 a member of the Council or the public may request a public hearing on any of the liquor license renewal requests. If such a public hearing request is made, a hearing will be scheduled and held on the license. It is important that any request for such a hearing include reasons for said hearing.

FINANCIAL IMPLICATIONS:
A renewal fee of $35 has been paid by each applicant.

Approved By Tualatin City Council
Date April 27, 2009
Recording Secretary J Kurby

STAFF REPORT
CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

FROM: Sherilyn Lombos, City Manager

DATE: April 27, 2009

SUBJECT: APPROVAL OF A NEW LIQUOR LICENSE APPLICATION FOR 501 SPORTS CAFÉ & BAR

ISSUE BEFORE THE COUNCIL:
The issue before the Council is to approve a new liquor license application for 501 Sports Café and Bar.

RECOMMENDATION:
Staff respectfully recommends that the Council approve endorsement of the liquor license application for 501 Sports Café and Bar.

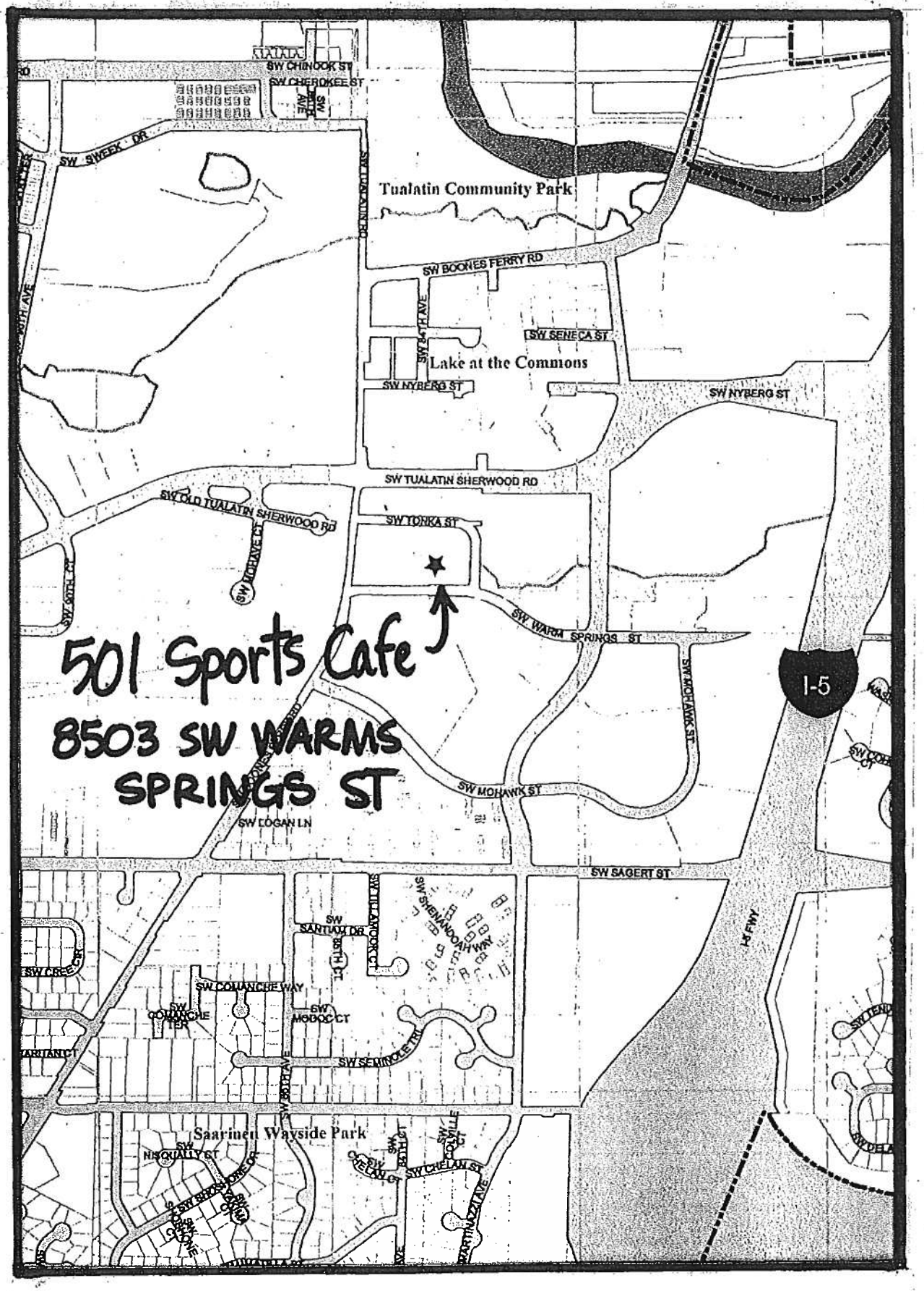
EXECUTIVE SUMMARY:
501 Sports Café and Bar, has submitted a new liquor license application. The liquor license is for a Commercial Establishment Full On-Premises Sales and Off-Premises Sales. The business is located at 8503 SW Warm Springs Road. The application is in accordance with provisions of Ordinance No. 680-85 which established a procedure for review of liquor licenses by the Council.

Ordinance No. 680-85 establishes procedures for liquor license applicants. Applicants are required to fill out a City application form, from which a review by the Police Department is conducted, according to standards and criteria established in Section 6 of the ordinance. The Police Department has reviewed and signed off on this application.

According to the provisions of Section 5 of Ordinance No. 680-85 a member of the Council or the public may request a public hearing on any of the liquor license requests. If such a public hearing request is made, a hearing will be scheduled and held on the license. It is important that any request for such a hearing include reasons for said hearing.

FINANCIAL IMPLICATIONS:
A fee has been paid by the applicant.

Attachments: Vicinity Map


Tualatin Community Park
SW BOONES FERRY RD
Lake at the Commons
SW SENECA ST
SW NYBERG ST
SW TUALATIN SHERWOOD RD
SW OLD TUALATIN SHERWOOD RD
SW TONKA ST
SW WARM SPRINGS ST
SW MOHAWK ST
I-5
501 Sports Cafe
8503 SW WARMS SPRINGS ST
SW LOGAN LN
SW SAGERT ST
SW SARTUATI DR
SW TILLAMOOK CT
SW SHENANDOAH
SW COLUMBIA TER
SW COLUNCHE WAY
SW MODOC CT
SW SEMINOLE TRL
Saarinen Wayside Park
SW NISQUALLY ST
SW CHELAN ST
SW CREEK CT

Approved By Tualatin City Council
Date April 27, 2009
Recording Secretary J Kirby

STAFF REPORT
CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

THROUGH: Sherilyn Lombos, City Manager

FROM: Doug Rux, Community Development Director
Colin Cortes, Assistant Planner C.C.

DATE: April 27, 2009

SUBJECT: RESOLUTION AMENDING THE CITY OF TUALATIN FEE SCHEDULE AND RESCINDING RESOLUTION NO. 4857-09

ISSUE BEFORE THE COUNCIL:
City Council consideration of adopting a resolution to update the City of Tualatin Fee Schedule pertaining to street trees.

RECOMMENDATION:
Staff recommends that the City Council adopt the attached resolution.

EXECUTIVE SUMMARY:

- This action is not a public hearing.
- This proposal is to amend the City of Tualatin Fee Schedule in order to establish the following fees on a cost recovery basis:

  Operations Department
  Street Tree Removal (excluding Stump Grinding)..... $280
  Street Tree Stump Grinding $110

- The fees help implement and fund PTA-08-04, a Plan Text Amendment of street tree regulations that the Council adopted on March 23, 2009 via Ordinance No. 1279-09.
- Because local ordinances take effect 30 days after the date of adoption, Ordinance No. 1279-09 takes effect April 22. The attached resolution takes effect upon Council adoption.
- The City last amended the fee schedule on January 12, 2009 via Resolution No. 4857-09.

- The City has general government authority to cover the costs of providing services and documents, as set forth by applicable Oregon Revised Statutes.

OUTCOMES OF DECISION:
Council approval of the resolution would result in the following:

1. Allowance for the Operations Department to charge specific fees for street tree replacement if an adjacent property owner opts for Operations to prepare the site for planting on behalf of the owner.
2. Recovery of costs when a property owner requests that the City prepare a site for planting of a replacement street tree.
3. The two additional fees and rescindment of Resolution No. 4857-09 become effective immediately upon Council adoption.
4. All other fees remain as they are.

Denial of the resolution would result in the following:

1. No allowance for the Operations Department to charge specific fees for street tree replacement if an adjacent property owner opts for Operations to prepare the site for planting on behalf of the owner.
2. No recovery of costs when a property owner requests that the City prepare a site for planting of a replacement street tree.
3. No additional fees take effect.
4. The existing fee schedule remains as is.

ALTERNATIVES TO RECOMMENDATION:
The alternatives to the staff recommendation are:

1. Direct staff to return to Council with an alternative resolution, including any revisions requested by City Council.
2. Direct staff to return to Council with additional information; or
3. Take no action.

FINANCIAL IMPLICATIONS:
The FY 2008/09 budget allocated funds to the Community Development Department to process Fee Schedule updates.

Attachments: A. Resolution with Exhibit A "City of Tualatin Fee Schedule"

RESOLUTION NO. 4877-09

RESOLUTION AMENDING THE CITY OF TUALATIN FEE SCHEDULE AND RESCINDING RESOLUTION NO. 4857-09

WHEREAS THE City Council has the authority to set fees for materials and services provided by the City; and

WHEREAS the fees listed under the Operations Department in the City of Tualatin Fee Schedule are newly established fees related to street tree replacement; and

WHEREAS the fees recover street tree removal and stump grinding costs included in plan text amendment PTA-08-04 adopted by the City Council on March 23, 2009 via Ordinance No. 1279-09 that takes effect 30 calendar days after adoption, that is, on April 22, 2009; and

WHEREAS Resolution No. 4857-09, adopted January 12, 2009, which last amended the City of Tualatin Fee Schedule, must now be rescinded.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF TUALATIN, OREGON, that:

Section 1. Fees listed under the Operations Department are established as set forth in "Exhibit A", which is attached and incorporated by reference.

Section 2. All other fees provided in the City of Tualatin Fee Schedule remain unchanged, as set forth in "Exhibit A", which is attached and incorporated by reference.

Section 3. The fees shall be effective, and Resolution No. 4857-09 is rescinded, upon adoption by the City Council.

INTRODUCED AND ADOPTED this 27th day of April, 2009

CITY OF TUALATIN, Oregon

By _____
Mayor Pro tem

APPROVED AS TO LEGAL FORM

Brenda L. Braden
CITY ATTORNEY

ATTEST:

By _____
City Recorder

CITY OF TUALATIN FEE SCHEDULE Exhibit A

Administration Department:

Agenda Packet	5.00
Ordinances or Portions Thereof	same as photocopy rate
Photocopies:	
One-sided	0.25
Two-sided	0.25
Color	1.00
11x17	0 .50
Audio Tape/ CD/ DVD	15.00

Community Development Department:

Amendment to Comprehensive Plan Map	1,795.00
Amendment to Comprehensive Plan Text/Landmark Designation/Removal of Landmark Designation	1,795.00
Annexation	1,225.00
Appeal Proceeding to Council	115.00
Appeal Expedited Process to Referee, Deposit per ORS 197.375	300.00
Architectural Review Application, Nonexpedited Process:	
Estimated Project Value:	
Under $5,000	100.00
$5,000 - $24,999.99	470.00
$25,000 - $99,999.99	850.00
$100,000 - 499,999.99	1,415.00
$500,000 and greater	2,070.00
Architectural Review Application, Expedited Process:	
Estimated Project Value:	
Under $5,000	100.00
$5,000 - $24,999.99	945.00
$25,000 - $99,999.99	1,880.00
$100,000 - 499,999.99	2,830.00
$500,000 and greater	4,335.00
Architectural Review, Single-family Level I (Clear & Objective)	50.00
Architectural Review, Single-family Level II (Discretionary)	700.00
Conditional Use Permit	1,225.00
Conditional Use Permit Renewal	1,225.00
Core Area Parking District Tax Appeal	115.00
Interpretation of Development Code	No Fee
Industrial Master Plans	1,565.00
Landmark Alteration/New Construction Review	50.00
Landmark Demolition Review	50.00
Landmark Relocation Review	50.00
Reinstatement of Nonconforming Use	1,225.00
Request for Council Rehearing	140.00
Sign Code Interpretation	350.00
Sign Ordinance	6.00
Sign Code Variance	580.00

Sign Permit:
- New Sign or Structural Change to Existing Sign 115.00
- Temporary Sign or Each Face Change to Existing Sign 60.00

Temporary Uses, 1 - 3 days 40.00
- 4 - 180 days ..... $40.00 + 1.50/day
- Over 3 days ..... not to exceed a total of $170.00

Transitional Use Permit 1,315.00
Tree Removal Permit, 1 tree 276.00
- each additional tree, $10.00 not to exceed a total of 300.00

Variance:
- When primary use is a single family dwelling in RL or RML 245.00
- When primary use is not a single family dwelling in RL or RML 1,225.00

Variance, Minor:
- When primary use is a single family dwelling in RL or RML 245.00
- When primary use is not a single family dwelling in RL or RML 905.00

All Other Actions 280.00

<u>Engineering & Building Department</u>:

Engineering Copies:
- 1987 and earlier, aerial/contour maps 6.00
- 36" x 48" 3.50
- 24" x 36" 2.50
- 18" x 24" and 11" x 17" 1.50

Geographic Information System:
- Citywide aerial photo, 36" x 42" 25.00
- Subdivision street map, 34" x 36" 12.00
- Street map, 22" x 22" 6.00
- Planning Districts, 34" x 44" 12.00
- Planning Districts, 18" x 24" 6.00
- Custom Mapping ..... 45.00/hr, plus materials

Partition,* Nonexpedited & Expedited Processes 350.00
Partition,* Nonexpedited & Expedited Exten. /Modif. 115.00
Partition,* Nonexpedited, Appeal Proceeding to Council 115.00
Partition,* Expedited, Appeal to Referee, Deposit per ORS 197.375 ..... 300.00
Partition,* Minor Variance included & primary use is a single family dwelling in RL or RML ..... Add 115.00
Partition,* Minor Variance included & primary use is not a single family dwelling & not in RL or RML ..... Add 175.00
Property Line Adjustm't.,* primary use is a single family dwelling in RL or RML 60.00
Property Line Adjustm't.,* Minor Variance included & primary use is a single family dwelling in RL or RML ..... Add 115.00
Property Line Adjustm't.,* primary use is not a single family dwelling in RL or RML 255.00
Property Line Adjustm't.,* Minor Variance included & primary use is not a single family dwelling in RL or RML ..... Add 115.00
Property Line Adjustm't.* Appeal Proceeding to Council 115.00
Public Works Construction Code 40.00
Subdivision,* Nonexpedited and Expedited Processes 2,320.00

Subdivision,* Variance included & primary use is a single family dwelling in RL or RML ..... Add 230.00
Subdivision,* Variance included & primary use is not a single family dwelling in RL or RML ..... Add 290.00

Subdivision,* Minor Variance included & primary use is a single family dwelling in RL or RML ..... Add 115.00
Subdivision,* Minor Variance included & primary use is not a single family dwelling in RL or RML ..... Add 175.00
Subdivision,* Nonexpedited, Extension/Modif. by Council 530.00
Subdivision,* Expedited, Extension/Modif. by City Engineer 130.00
Subdivision,* Nonexpedited, Appeal Proceeding to Council 115.00
Subdivision,* Expedited Appeal to Referee, Deposit per ORS 197.375 ..... 300.00
Street Name Change 115.00
Street Vacation Application Deposit 290.00
Zone of Benefit Application Fee 580.00

* Subdivision, Partition and Property Line Adjustment applicants shall contact the Finance Department for a determination of L.I.D. assessment apportionment for the property proposed to be divided or adjusted.

Finance Department:
*L.I.D. Assessment Apportionment Fee 95.00
Lien Search Fee (per tax lot) 26.00
Recovery Charge Installment Payment Plan Application Fee 200.00
Returned Checks (per check for processing NSF check) 32.00
Zone of Benefit Recovery Charge Administration Fee 105.00
Passport Photo 15.00

Legal Services Department:
Development Code 55.00
Updates ..... 0.25/page + postage
Tualatin Municipal Code 55.00

Municipal Court
Traffic School and Compliance Program Fees:
Class A 200.00
Class B 150.00
Class C 100.00
Class D 75.00
Seat Belt Class 55.00
Vehicle Compliance Program 15.00
Collection Fee ..... 25% of ordered amount
License Restatement Fee 70.00
Overdue Payment Letter Fee 10.00

Operations Department:
Street Tree and Installation (Single Family Only) 175.00
Street Tree Removal (excluding Stump Grinding) 280.00

Street Tree Stump Grinding 110.00
Tree-for-a-Fee Program 45.00

Police Department:
Copies of Audio Tapes..... 11.00 per tape
Copies of Video Tapes..... 35.00 per tape
Copies of Photographs..... 13.00 plus 0.50 per photo
Copies of Police Reports (no charge to victims):
1 - 10 pages 7.00
plus each page over 10 ..... 0.25
Alarm Permit, Initial Application..... 21.00
Alarm Permit, Annual Renewal 21.00
Alarm Permit, 1st False Alarm ..... No charge
Alarm Permit, 2nd False Alarm ..... No charge
Alarm Permit, 3rd False Alarm 79.00
Alarm Permit, 4th False Alarm 105.00
Alarm Permit, 5th False Alarm 158.00
Alarm Permit, 6th and More False Alarms ..... 210.00 per alarm

Release of Towed (impounded) Vehicles..... 100.00

Approved By Tualatin City Council
Date April 27, 2009
Recording Secretary G Kirby

STAFF REPORT
CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

THROUGH: Sherilyn Lombos, City Manager

FROM: Doug Rux, Community Development Director
Aquilla Hurd-Ravich, Senior Planner

DATE: April 27, 2009

SUBJECT: RESOLUTION AUTHORIZING MAYOR OGDEN TO SIGN A MEMORANDUM OF UNDERSTANDING BETWEEN THE CITY AND THE STAFFORD HAMLET

ISSUE BEFORE THE COUNCIL:
A Memorandum of Understanding (MOU) to establish and secure open communications between the two parties.

RECOMMENDATION:
Staff respectfully recommends that Council adopt the attached resolution authorizing Mayor Ogden to sign the MOU.

EXECUTIVE SUMMARY:

- This is not a public hearing.
- The Stafford Hamlet adopted by-laws in November 2006. One of which called for active communication with the surrounding cities. The purpose of the MOU is to formalize communication between the City and the Stafford Hamlet. It is in the City's interest to have the ability to review and comment on their processes because they are a grassroots organization providing input to the Clackamas County Board of Commissioners. Adopting the MOU establishes a willingness on the part of the City to communicate in good faith with the Stafford Hamlet when considering matters that affect the Stafford Basin area.
- Staff had an opportunity to review and comment on an earlier version of the MOU. Our revisions are incorporated in the draft before you tonight and the City Attorney, Ms. Braden, has reviewed this draft.

- The objectives presented in the MOU focus on information sharing through attendance of public meetings when the topic is the Stafford Basin, providing notification of these meetings and mutual invitations to sit on committees formed for planning in the Stafford Basin. A similar MOU was presented to the Cities of West Linn and Lake Oswego for their review and consideration. The City of West Linn accepted and signed the MOU in August of 2008.
- The Community Development staff has been following their visioning process, attending board meetings, town halls and other events since November 2007.
- The Hamlet has become more cohesive as an advisory body with the recent approval of their vision statement. Additionally, a representative of the Hamlet participates on the Clackamas County Urban Rural Reserve Policy Advisory Committee.
- On August 25, 2008, the MOU was presented to the Council as a work session item. A previous work session took place in the winter of 2008 to discuss staff's involvement with the Stafford Hamlet.
- There is no applicable policy or law that accompanies this particular MOU.
- There are no applicable criteria to adopt the resolution.

OUTCOMES OF DECISION:
Approval of the resolution will have the following result:

- The Mayor will be authorized to sign the MOU and the City will enter into a formalized agreement to communicate with the Stafford Hamlet.

Not approving the resolution will have the following result:

- The Mayor will not be authorized to sign the MOU and communications will remain as status quo without a formalized agreement.

FINANCIAL IMPLICATIONS:
This item is not budgeted and will not require any further commitment of funds beyond the time staff currently dedicates to Stafford Hamlet activities.

Attachments: A. Resolution
B. MOU

RESOLUTION NO. 4878-09

RESOLUTION AUTHORIZING MAYOR ~~OGDEN~~ TO SIGN A MEMORANDUM OF UNDERSTANDING BETWEEN THE CITY AND STAFFORD HAMLET AN ADVISORY BOARD TO THE CLACKAMAS COUNTY BOARD OF COUNTY COMMISSIONERS

WHEREAS the City Council has the authority to allow the Mayor to sign Memorandums of Understanding (MOU); and

WHEREAS the Stafford Hamlet, being recognized as an advisory body by the Clackamas County Board of Commissioners under Chapter 2.10 of the County Code, for the purpose of considering and making advisory recommendations to the County concerning a broad range of issues affecting the livability and quality of life; and

WHEREAS the Stafford Hamlet hereby requested this Memorandum of Understanding between the City of Tualatin and the Stafford Hamlet Board of Directors.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF TUALATIN, OREGON, that:

The City Council authorizes Mayor ~~Ogden~~ sign the attached MOU between the City and the Stafford Hamlet.

INTRODUCED AND ADOPTED this 27th day of April, 2009.

CITY OF TUALATIN, OREGON

BY _____
Mayor Pro tem

ATTEST:

BY _____
City Recorder

Approved as to legal form:

_____
City Attorney

Memorandum of Understanding (MOU)

Between the Stafford Hamlet and the City of Tualatin

Purpose:

The purpose of this memorandum is to establish and secure open communications between the Stafford Hamlet and the City of Tualatin. Collaboration between the parties will serve to enhance understanding of the desires of the City and the residents of the Stafford Hamlet.

The Stafford Hamlet, being recognized as an advisory body by the Clackamas County Board of Commissioners under Chapter 2.10 of the County Code, for the purpose of considering and making advisory recommendations to the County concerning a broad range of issues affecting the livability and quality of life, does hereby request this Memorandum of Understanding between the City of Tualatin and the Stafford Hamlet Board of Directors for the mutual benefit of open two-way communications on issues concerning the future of both parties.

The activities of the Hamlet are as follows:

- Develop a conceptual plan conceived within a grassroots effort from the community.
- Address in this conceptual plan preliminary considerations regarding, but not limited to traffic flow, water, sewer, residential and office/commercial development, parks, open spaces and schools.
- Creation of an approval process, within the Hamlet for the Community Vision plan that recognizes the interests of, residents, property owners, and business owners within the Stafford Hamlet that will be approved in an equitable manner by residents in the Stafford Hamlet.
- Fundraising and budgeting for the completion of the Visioning process.
- Hold community, Town Hall and Stakeholder meetings.

The Stafford Hamlet has the following objectives and goals with regard to communications with the City of Tualatin:

- Effective and open communications between designated leadership within the City and the Stafford Hamlet Board of Directors.
- Defined points of contact between the City and the Stafford Hamlet.
- General information sharing between the Stafford Hamlet and the City through meeting attendance.
- Open invitation to all public meetings held by either the City or the Stafford Hamlet concerning the Stafford Basin.
- Provide notification of City Council meetings concerning the Stafford Basin to the Stafford Hamlet Board of Directors and notification of all Stafford Hamlet Board Meetings to the City.

- Invitation to sit on committees formed by either the Stafford Hamlet or the City associated with planning for the Stafford Basin.
- Ability for the City to review and comment on the Hamlet Visioning process.

Limitations

- This MOU does not establish any formal relationship between the parties either present or future.
- No commitments for future services between the parties shall be allowed either verbally or in any written form under this MOU by any individual on the Board of Directors or City representative.

Points of Contact

To be determined by the City, and for the Stafford Hamlet by the Hamlet Board of Directors.

Modification/duration/termination

This MOU shall take effect upon signature of each participant and remain in effect until terminated by mutual written agreement of both parties. This MOU may be amended at any time by the mutual written consent of the participants. Either party may terminate its participation in this MOU by providing at least thirty (30) days written notice to the other party.

Board of County Commissioners

Lynn Peterson, Chair

For Stafford Hamlet

Jay Minor, Chair

Mike Stewart, Vice Chair

For the City of Tualatin

~~Lou Ogden~~, Mayor Pro tem

Con't to May 26, 2009

Approved By Tualatin City Council
Date April 27, 2009
Recording Secretary G Kirby

STAFF REPORT
CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

THROUGH: Sherilyn Lombos, City Manager

FROM: Doug Rux, Community Development Director
William Harper, Associate Planner

DATE: April 27, 2009

SUBJECT: CONDITIONAL USE PERMIT FOR THE STAFFORD HILLS RACQUET & FITNESS CLUB (SHR&F Club) AS A PRIVATE CLUB USE AND FOR ADDITIONAL BUILDING HEIGHT IN THE LOW-DENSITY RESIDENTIAL (RL) PLANNING DISTRICT AT 5916 SW NYBERG LANE (TAX MAP 21E19C, TAX LOT 900) (CUP-09-01)

ISSUE BEFORE THE CITY COUNCIL:
A request for a Conditional Use Permit that would allow: 1. The Stafford Hills Racquet & Fitness Club (SHR&F Club) as a private club use in the Low Density Residential (RL) Planning District at 5916 SW Nyberg Lane; 2. Increased building height from the maximum 35 ft. in a RL Planning District to a height of up to 40 ft.

RECOMMENDATION:
Staff recommends the City Council consider the staff report and supporting attachments and direct staff to adopt the attached resolution granting CUP-09-01 to allow a private club use and increase building height up to 40 ft. with the following conditions:

1. To ensure an adequate visual buffer between the Legacy Health Systems property to the proposed SHR&F Club outdoor/covered courts and indoor tennis building, the proposed club facility shall submit an Architectural Review plan that shows a buffer of evergreen and deciduous plantings on the south perimeter of the development area that extend from planter grade to 10 ft. in height to provide screening of the outdoor courts and include trees that will reach a minimum mature height of 30 ft. or more to provide a buffer to the indoor tennis building rooftop.

2. To ensure that the SHR&F Club buildings with the proposed increased building height is adequately buffered to the residences east of the site, the proposed athletic club facility shall submit an Architectural Review plan that shows a buffer of evergreen and deciduous plantings on the east perimeter of the development area that that extend from planter grade to a minimum height of 12 ft. and include trees that have a minimum planted size of 12 ft. or 3" caliper and will reach a minimum mature height of 30 ft. or more.
3. The SHR&F Club shall establish a parking management program that will restrict on-site parking before 8 am from parking stalls within 100 ft. of the SHR&F Club east property line.
4. Activities in the SHR&F Club buildings and on-site shall end by 10:00 p.m. and that the buildings and parking areas be closed by 10:30 p.m.
5. To ensure there is adequate on-site parking and to avoid spill-over parking onto neighboring residential streets, a Parking Management Plan for the SHR&F Club use shall be submitted with an Architectural Review application. The Parking Management Plan shall contain provisions for tournament and event parking that may include limits on attendance, mechanisms for restricting SHR&F Club visitor parking on public streets, and providing off-site parking in approved parking areas.
6. To ensure that outdoor lighting does not create glare to the adjoining public street, to the natural wetland to the west of the development area and onto adjacent properties, the proposed private club facility shall submit an Architectural Review plan that shows exterior building and site lighting will not shine or create glare in a manner that impairs the use of a property by residents or wildlife.

EXECUTIVE SUMMARY:

- This matter is a quasi-judicial public hearing.
- This matter is a Conditional Use Permit request.
- The applicant is Jim Zupancic of the Zupancic Group. Joseph P. and Anita L. Kozlowski are the owners of the 15.6 acres, Tax Lot 900 (Map 21E19C) subject property located at 5916 SW Nyberg Lane in the RL Planning District. The property is undeveloped except for a house, small barn and small accessory structures located along the site's eastern property boundary. The vicinity of the site includes single-family residential development to the east, the Meridian Park Hospital campus and vacant property adjoining on the south, an unoccupied child care center on the west, and the Stone's Throw Apartments and Brown's Ferry Park across SW Nyberg Lane to the north (Attachment A Vicinity Map). The Zupancic Group is proposing to develop a private club facility on the approximately 5 acre eastern portion of the property and leave the wetlands and Nyberg Creek on the approximately 10 acre western portion of the property undeveloped. A Vicinity Map, a Tax Map and a Site Map are included as Attachments A, B & C respectively. The applicant's materials including a site plan are included as Attachment D.

- The Zupancic Group proposes developing a private club facility (Stafford Hills Racquet & Fitness Club) including the main building (Tennis Courts & Club House with approximately 72,455 square feet of floor area) with 7 high-ceiling indoor courts and a 2 story clubhouse with fitness gym, locker rooms, spa services, pro shop, cafe and a members lobby/lounge area. A second smaller building at the southeast corner of the site ("Activity Building" with approximately 17,200 square feet of floor area) will be two stories with indoor practice "alleys" and a "kids club" supervised activity and child care area. The applicant proposes three outdoor tennis courts with seasonal inflatable covers, an outdoor swimming pool and terrace and a kids outdoor play area on the south perimeter of the development area. Surface parking for 131 vehicles on the eastern portion of the facility is proposed. Access is from SW Nyberg Lane via a primary driveway on the eastern side of the property. A service and fire access driveway from SW Nyberg lane is proposed on the west side of the main building. The facility will have a staff of up to 40 full-time and 20 part-time persons and be open daily from 5:30 a.m. to 10:00 p.m. (Attachment D Section 5, pp. 1, 8). The proposed SHR&F Club development including the on-site and public improvements will be subject to Architectural Review.
- The 10 acres western portion of Tax Lot 900 includes Nyberg Creek and its associated wetland areas extending from the SW 65th Avenue culvert on the west to the SW Nyberg Lane culvert crossing on the north. TDC Map 72-1 designates the creek on Tax Lot 900 as part of the Nyberg Creek NRPO-CG Creek Greenway (Attachment B). The Nyberg Creek wetland on the property is designated a Wetland Preservation Natural Area NRPO-WPNA and the wooded upland on the south side of Tax Lot 900 and the adjoining Meridian Park Hospital property is designated Open Space Natural Area NRPO-OSNA. No development is proposed in the NRPO designated greenway, wetlands or open space. The applicant indicates interest in transferring the creek and wetland portion of the site to the public or a non-profit conservation group. The NRPO requirements will be addressed in the Public Facilities Decision of an Architectural Review.
- The proposed SHR&F Club site map (Attachment C) shows the development area is located east of the Greenway, Preserved Wetland and Open Space NRPO. The application indicates wetlands "A, B & C" in the proposed development area that are not designated in Map 72-1 and are not regulated by the TDC. The Zupancic Group has applied for a Wetland Fill Permit from State and Federal Agencies to fill wetlands "A, B & C" in the development area and mitigate the fill with wetland creation and enhancement in the NRPO wetlands on the eastern portion of the property.
- A large portion of the property is within the Tualatin River Floodplain and subject to TDC Chapter 70 Floodplain. The floodplain requirements will be addressed in the Public Facilities Decision of an Architectural Review.
- "Golf course, country club and private club" are a Conditional Use in the RL Planning District [40.030(4)(I)]. The proposed SHR&F Club is a "private club" that offers facilities, activities and services to a membership. As a membership tennis club that provides facilities for active recreation activities, tournaments and events as well as personal health & fitness services, leisure and social activities

including dining, member events and meetings, the SHR&F Club is similar to both a "golf course" and a "country club" and is a conditional use.

- "Increased building height to a maximum of 75 feet, if all yards adjoining said building are not less than a distance equal to 1½ times the height of the building" is listed as a Conditional Use in the RL Planning District [40.030(4)(n)]. The applicant proposes an increase of structure height of the Tennis Building from the 35 ft. maximum allowed in the RL Planning District (TDC 40.100) to 38 ft. Staff recommends the additional height increase be to 40 ft. to allow for building and grade adjustments that may occur during the development process. The setback for the additional height (to 40 ft.) would be 60 ft. and the proposed site plan shows the increased height portions of the Clubhouse wing of the Tennis Building to be 195 ft. from the easterly property line and 130 ft. from the south property line. If increased structure height is approved, the height setback standard would be met.
- The Applicant has prepared a narrative that describes the SHR&F Club development, operation and proposed building height and addresses the Conditional Use Permit approval criteria (Attachment D). Attachment E is the Background Information and staff has reviewed the Applicant's material and included pertinent excerpts in the Analysis and Findings section of this report (Attachment F). Attachment G is a Memorandum prepared by the Engineering Division addressing transportation and other public facilities associated with the development. Six conditions related to buffers, parking and lighting are recommended.
- The Engineering Division reviewed the Applicant's submitted Traffic Impact Analysis (TIA) that showed adequate capacity at the intersection of SW Nyberg Street/SW 65th Avenue/SW Nyberg Lane (LOS B/B for AM/PM Peaks, respectively) and seven other intersections in addition to the site access for the proposed SHR&F Club development (Attachment G). The table below shows the Site Trip Generation Summary based on a conservative estimate of traffic entering and leaving the site access on SW Nyberg Lane:

SHR&F Club Site	Entering Trips	Exiting Trips	Total Trips
AM Peak Hour	35	15	50
PM Peak Hour	55	45	100

The TIA estimates (using conservative ITE and comparative rates) that the proposed SHR&F Club development will generate up to 1,010 daily (weekday) trips, contributing 50 additional AM Peak Hour Trips and 100 PM Peak Hour Trips to SW Nyberg Lane. The Engineering Division Memo states that Average daily trips on SW 57th Avenue is expected to increase by 3 to 5 percent (35 to 60 trips per day). Average daily traffic on SW 50th Avenue is expected to increase by around 8 percent (140 to 160 trips per day). Both are within the day-to-day fluctuation in daily traffic volume. Neither increase changes the character or intended purpose of the streets.

The Engineering Division prepared the following table to provide a comparison of the Peak Hour Vehicle Trips estimated for the proposed private club use to the vehicle trips possible for detached single family residential lots allowed as a permitted use in the RL Planning District. The most feasible comparison is the 6 lot subdivision, due to the presence of wetlands, floodplain regulations, Clean Water Services requirements and other constraints and the amount of developable land occupied by a public street. In a reasonable scenario of residential development under the permitted RL standards, the proposed private club development will increase the number of vehicle trips on SW Nyberg Lane.

# Single Family Residential Lots	AM Peak	PM Peak	Average Daily Trips
3 (w/ Public Street ROW) (Increased floodplain & water quality standards)	3	4	29
6 (5 acre development area w/ private Access Drive)	5	7	58
CUP-09-01	50	100	1010
***105** (all 15. 6 Acres of Tax Lot 900)	*80	*110	*1090

*Infeasible development scenario due to 10+ acres of unbuildable floodplain and wetland. This scenario was reported in previous traffic analysis for a withdrawn Plan Map Amendment application on Tax Lot 900.

- The City Council granted Conditional Use Permit CUP-88-09 for the Tualatin Golf Course/Country Club in a RL Planning District. CUP-82-02 approved increased building height for a steeple on the Tualatin Methodist Church building on SW Martinazzi Avenue.
- The applicable policies and regulations that apply to the proposed Conditional Uses in the RL Planning District include: TDC 5.040 Residential Planning District Objectives; TDC 32.010 Conditional Uses Purposes TDC 40.010 RL Planning District Purpose; TDC 40.030 Conditional Uses; and TDC Chapter 73-Community Design. The Analysis and Findings (Attachment F) considers the applicable policies and regulations.
- Before granting the proposed conditional use permit, the City Council must find that the use and additional structure height are allowed as a conditional use in the RL Planning District and the criteria listed in TDC 32.030 are met: The Analysis and Findings (Attachment F) examines the application in respect to the criteria for granting a Conditional Use Permit.
- Attachment I is the Resolution.

OUTCOMES OF DECISION:
Approval of the Conditional Use Permit request will result in the following:

1. Allows the applicant to develop and operate the SHR&F Club facility on the subject property, located in a RL Planning District.
2. Allows the structure height of the clubhouse wing of the building to be increased to 40 ft. with the required minimum 60 ft. building setback to property lines.
3. Allows the use subject to meeting conditions of approval for buffers, parking and lighting.

Denial of the Conditional Use Permit request will result in the following:

1. The applicant will not be allowed to construct and operate the private club on the subject property.

ALTERNATIVES TO RECOMMENDATION:
The alternatives to the staff recommendation for the Council are:

- Approve the proposed Conditional Use Permit with conditions the Council deems necessary.
- Deny the request for the proposed Conditional Use Permit with findings that state which criteria in TDC 32.030 applicant has failed to meet.
- Continue the discussion of the proposed Conditional Use Permit and return to the matter at a later date.

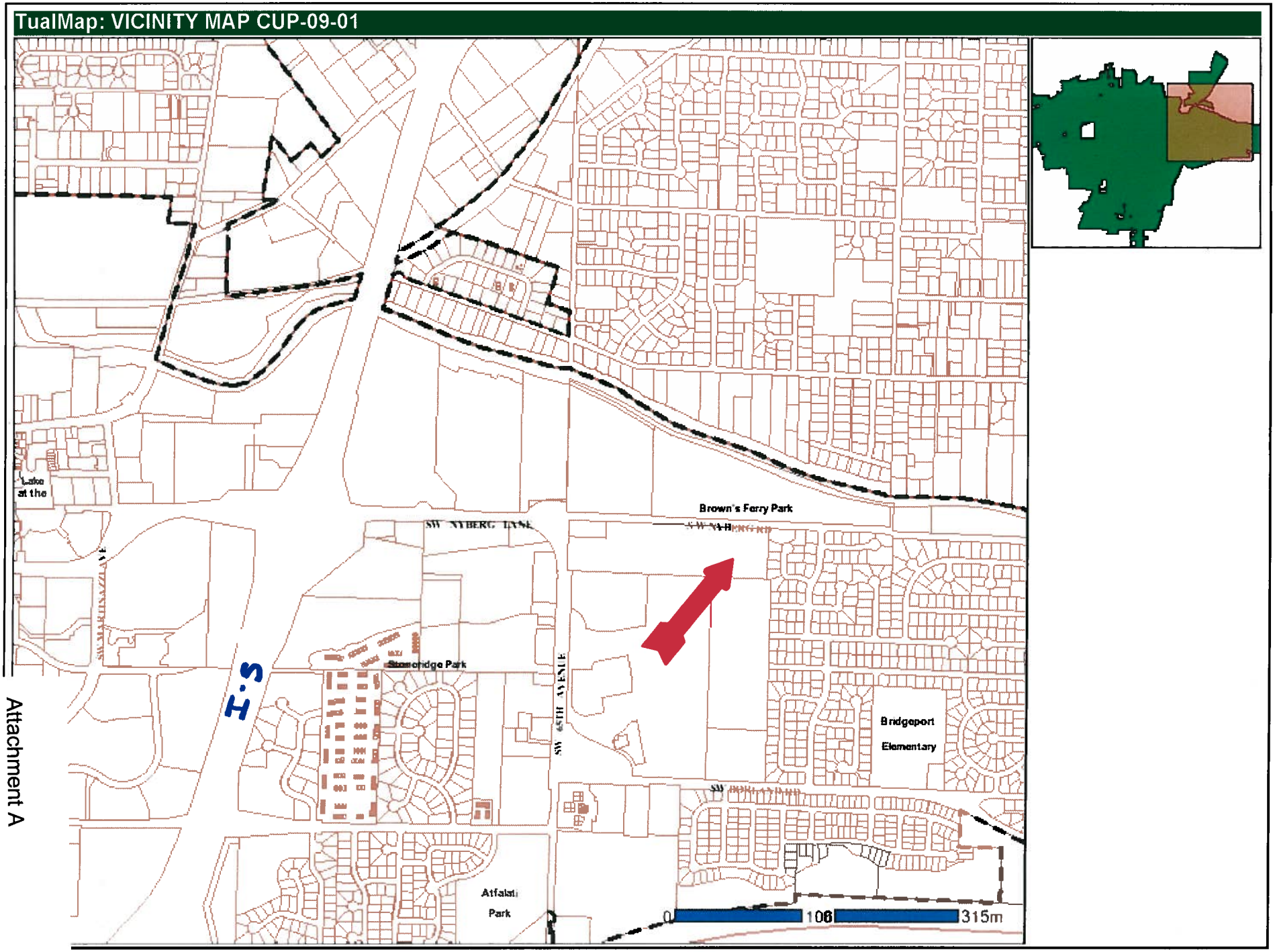
FINANCIAL IMPLICATIONS:
Revenue for Conditional Use Permits has been budgeted for Fiscal Year 08/09.

PUBLIC INVOLVEMENT:
The Applicant conducted a Neighbor/Developer meeting at the Legacy Meridian Park Hospital Education Center on February 12, 2009, to explain the Conditional Use Permit proposal to neighboring property owners and to receive comments. 20 nearby residents and property owners attended the meeting, primarily from the residential neighborhoods east of the SHR&F Club site. Three non-residents also attended. The application materials indicate the attendees had questions about the proposed facility and improvements and the proposed club staff & membership, hours of operation, outdoor activities, traffic on neighboring streets and parking. Attendees expressed concerns about building design that is compatible with the residential areas, buffering of buildings and parking areas, and nighttime activities and lighting.

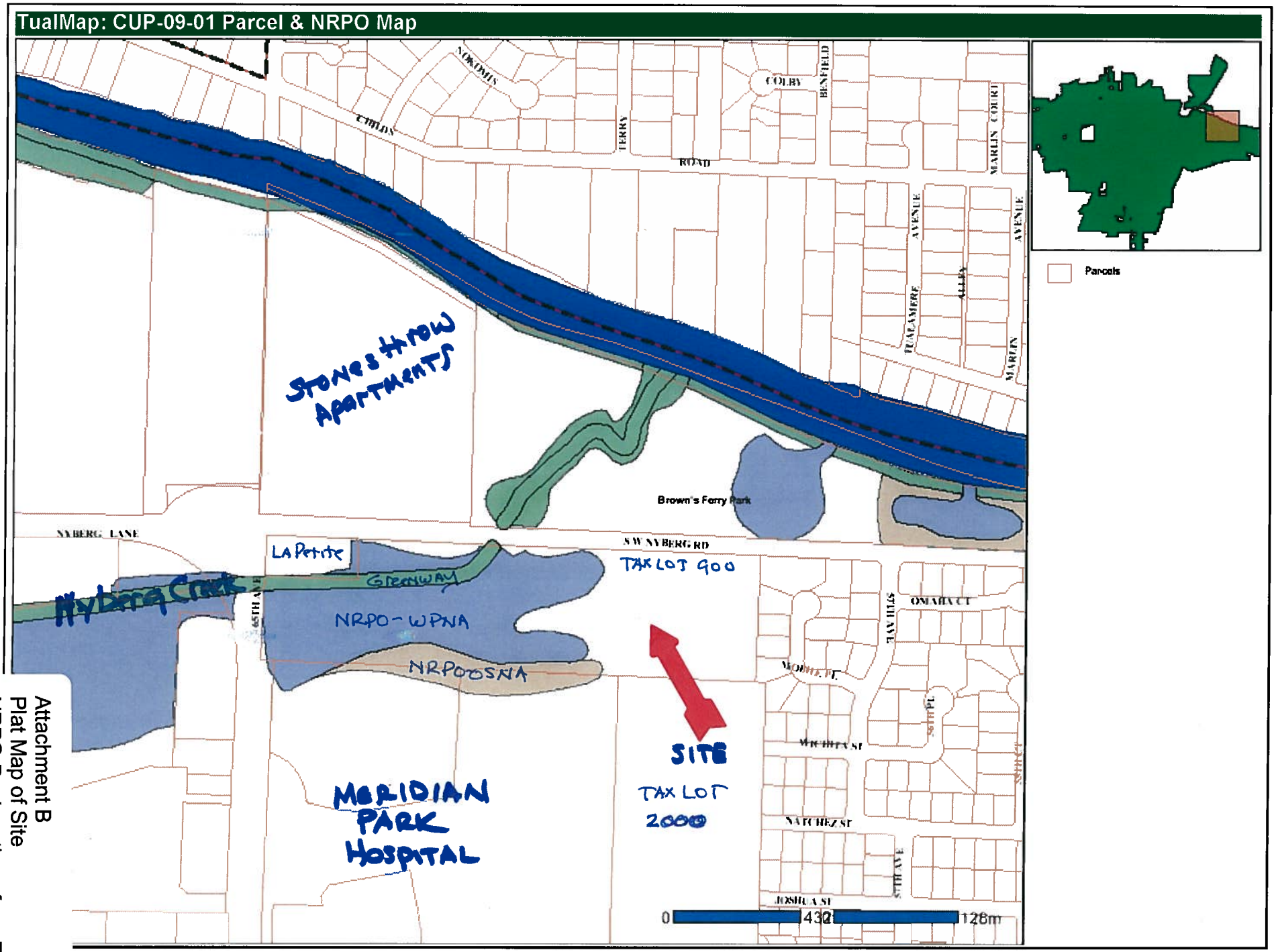
A collection of Email messages received by the Community Development Department since the CUP-09-01 application was submitted are collected in Attachment H. Seven of the 28 (25%) of the email messages are from Tualatin residents. Three of the emails from Tualatin residents raise concerns and issues that are addressed in the Analysis & Findings section. The applicant submitted a collection of Email messages included with Attachment D

Attachments:

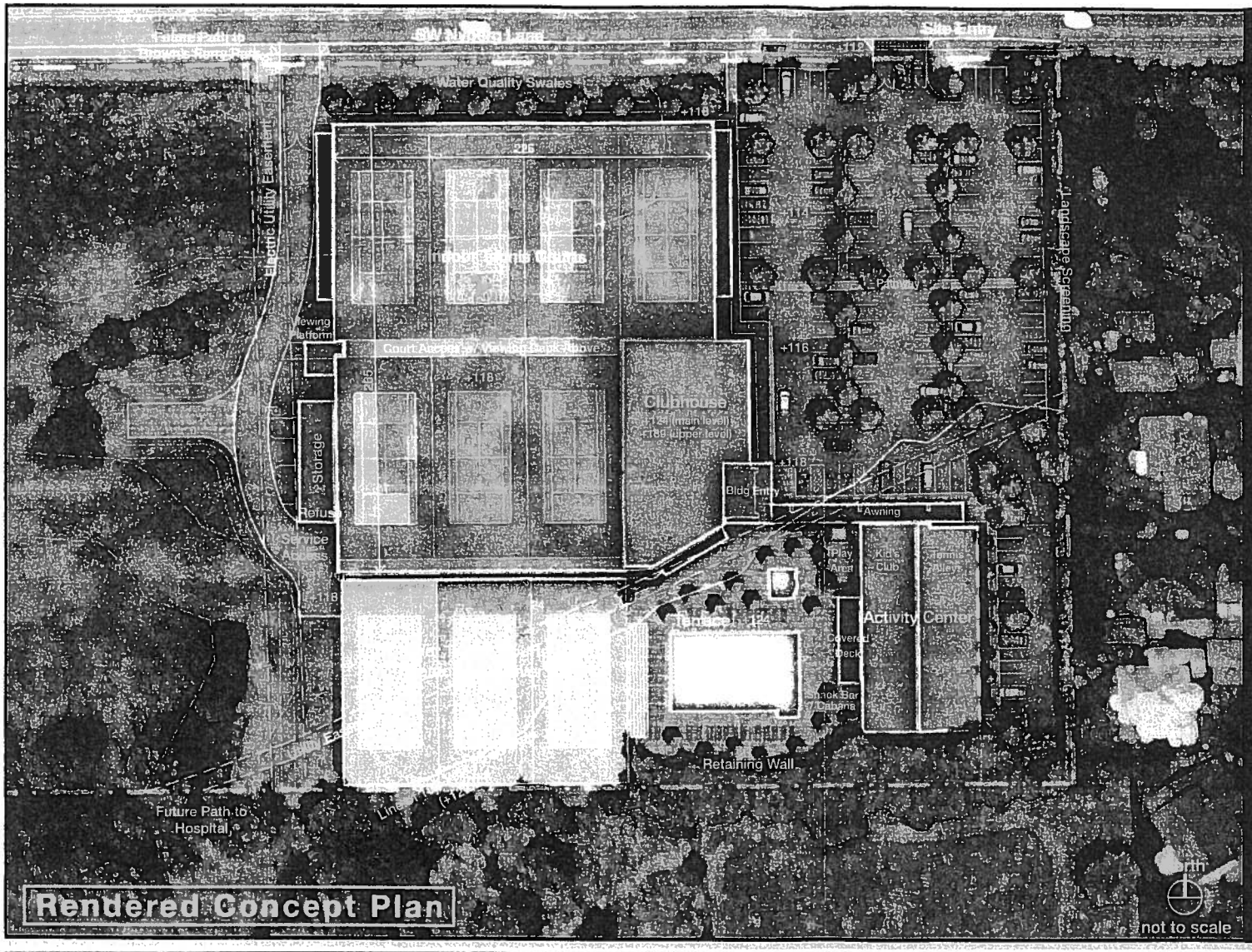
A. Vicinity Map
B. Plat Map of Site/NRPO Designations from TDC Map 72-1
C. Site Map
D. Applicant's Materials and Supporting Information including Kittelson & Associates Traffic Impact Study (February 2009)
E. Background Information
F. Analysis and Findings
G. Engineering Division Memorandum
H. Comments received by City of Tualatin
I. Resolution



Attachment A
Vicinity Map



Attachment B
Plat Map of Site
NRPO Designations from TDC Map 72-1



Rendered Concept Plan

Building Program Summary

Clubhouse / Fitness Center (2 stories):	20,225 sf
Seven Indoor Tennis Courts:	52,230 sf
Activity Center (2 stories):	17,200 sf
Storage:	1,585 sf

TOTAL BUILDING PROGRAM
91,240 sf

Parking Program Summary

Standard Parking:	87 stalls
Compact Parking:	39 stalls
Accessible Parking:	5 stalls

TOTAL PARKING
131 stalls

Other Program

- Three Outdoor Tennis Courts w/ Removable Seasonal Cover
- Activity Center
  - Tennis Alleys
  - Kid's Club
  - Multi-Purpose Cabana / Snack Bar
    - changing rooms / open lockers
    - restrooms
    - storage
    - pool equipment
- Swimming Pool
- Tennis Alley
- Terrace

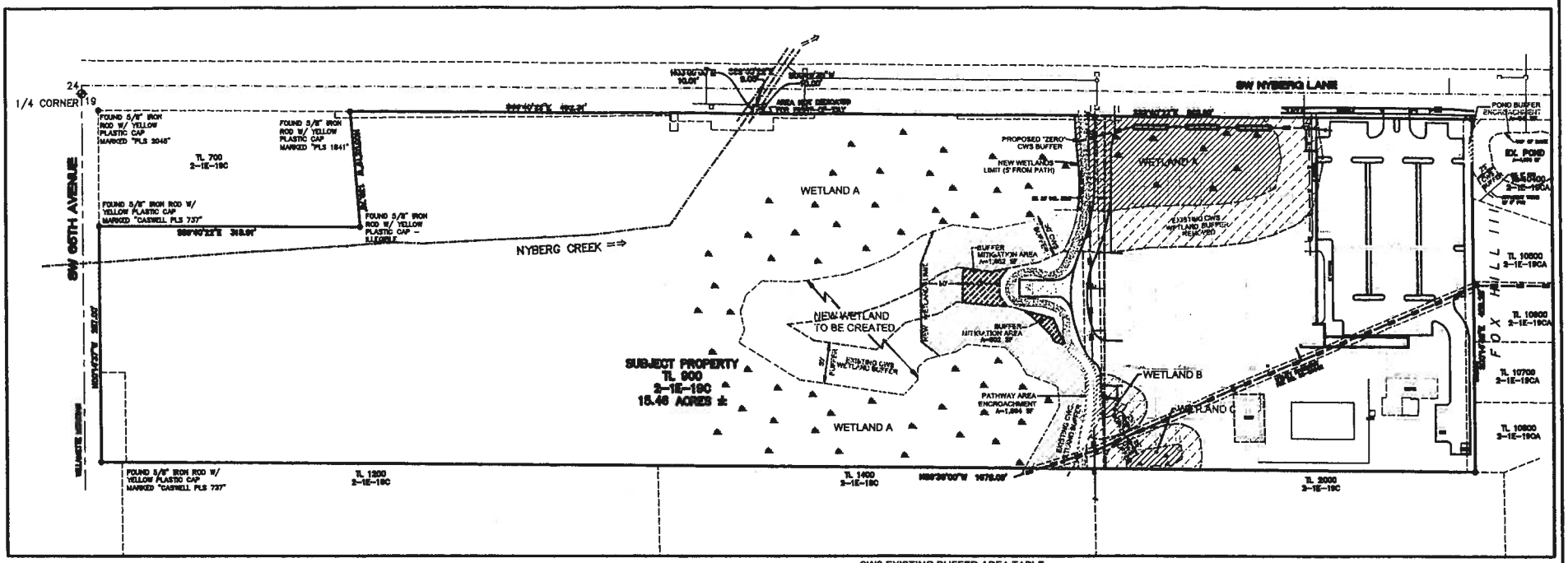
CUP-09-01
2nd Submittal
Date: 3/25/2009

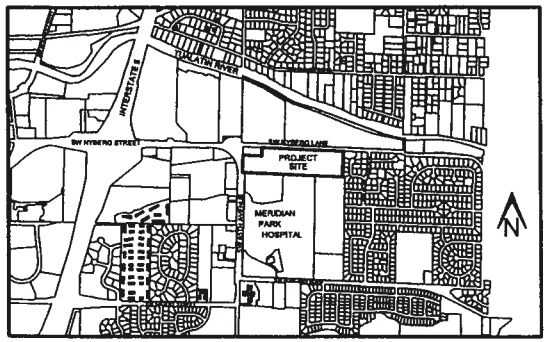
Stafford Hills Racquet & Fitness Club
Tualatin, Oregon 08/4030 March 2009

Zupancic Group
Real Estate Advisors and Developers

MYHRE · GROUP
architects

Attachment C
Site Map





VICINITY MAP
SCALE:1"=1000'

CWS EXISTING BUFFER AREA TABLE:

EXISTING BUFFER IMPACT NOT REQUIRING REPLACEMENT MITIGATION (WETLAND REPLACEMENT)

WETLAND A BUFFER	19,984 S.F.
WETLAND B BUFFER	3,018 S.F.
WETLAND C BUFFER	3,962 S.F.
TOTAL BUFFER AREA	26,944 S.F.

EXISTING BUFFER IMPACT REQUIRING REPLACEMENT MITIGATION (FINAL BUFFER ENCROACHMENT)

PATHWAY AREA	1,864 S.F.
OFFSITE POND (NE CORNER OF SITE)	84 S.F.
TOTAL BUFFER AREA ENCROACHMENTS	1,948 S.F.

CWS BUFFER MITIGATION CALCULATIONS:

NEW BUFFER AREA = 28,797 S.F.

ADDITIONAL BUFFER MITIGATION AREA = 1,852 S.F. + 582 S.F. = 2,584 S.F.

TOTAL BUFFER AREA ENCROACHMENTS	1,948 S.F.
ADDITIONAL BUFFER MITIGATION AREA	2,334 S.F.
MITIGATION RATIO	1.20 TO 1

SCALE: 1"=60'

NOTE: 11"x17" IS HALF SCALE

GENERAL SITE INFORMATION:

SITE ADDRESS:	5916 SW NYBERG LANE
TAX LOT AND MAP:	TAX LOT 900, MAP 2S 1E 19C
SITE AREA:	15.49 ACRES
ZONING:	RL, LOW DENSITY
EXISTING USE:	SINGLE-FAMILY HOUSE AND BARN
PROPOSED USE:	PRIVATE ATHLETIC CLUB

CITY OF TUALATIN
RECEIVED
FEB 19 2009
COMMUNITY DEVELOPMENT
PLANNING DIVISION

REV.	DESCRIPTION	APPR.	DATE

REFERENCE INFORMATION

ZUPANCIC GROUP INC.
5335 SW MEADOWS ROAD, #181
LAKE OSWEGO, OR 97035
T: 503.968.8200
FAX: 503.968.8017

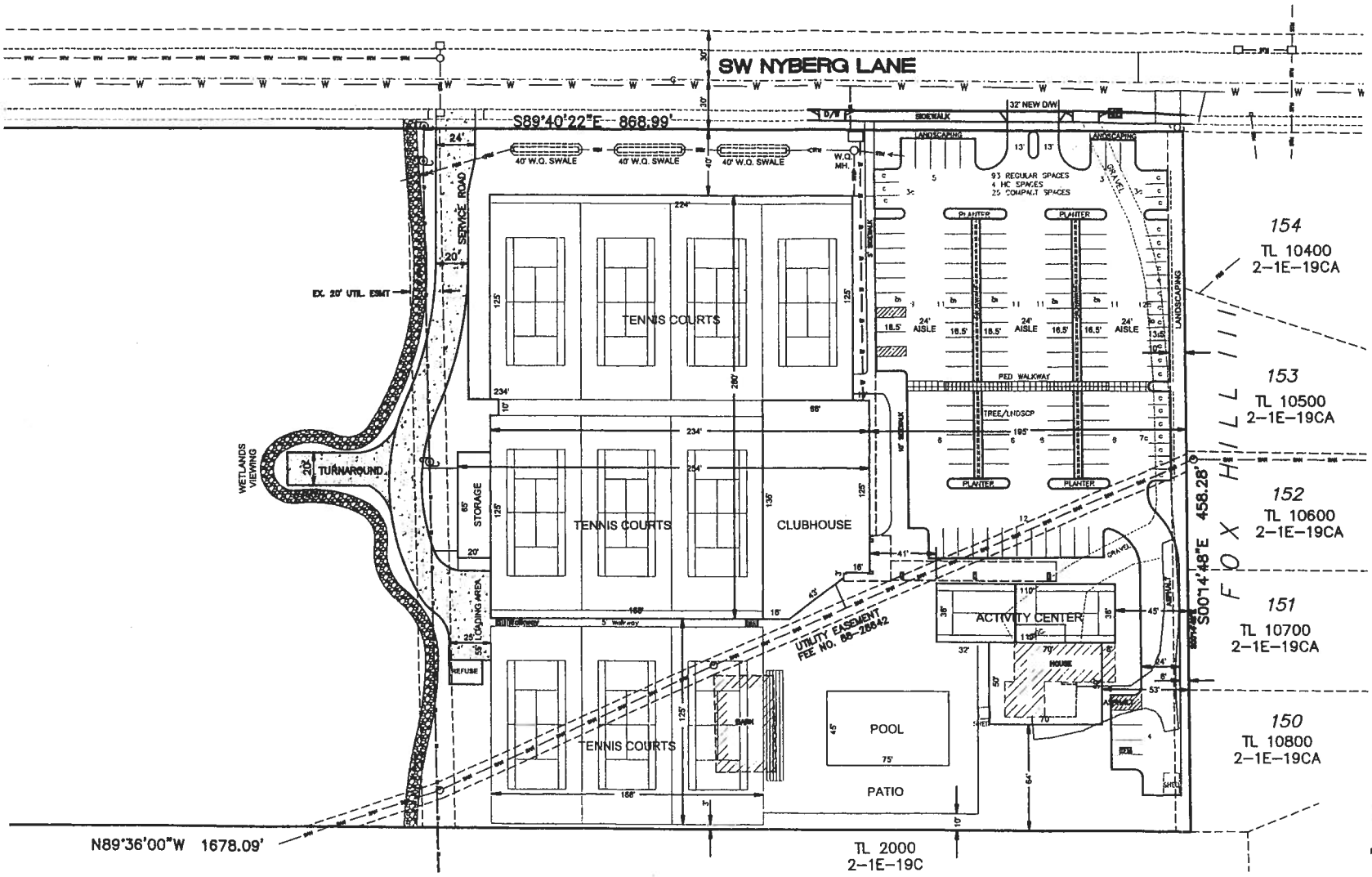
DESIGN TCM
DRAFTED TCM
CHECKED JCH
DATE 2/18/09

HMC | Harris-McMonagle Associates, Inc.
Since 1968
ENGINEERING · SURVEYING · PLANNING
8740 SW Scoffins Street Tigard, Oregon 97223
Tel. (503) 639-3453 Fax (503) 639-1232

STAFFORD HILLS RACQUET AND FITNESS CLUB

CONDITIONAL USE PLANS
CWS BUFFER MITIGATION PLAN

SCALE AS SHOWN
DRAWING NAME CONCEPT-BASE
SHEET 1 OF 2



REVISIONS			
REV.	DESCRIPTION	APPR.	DATE

REFERENCE INFORMATION:

ZUPANCIC GROUP INC.
18865 SW 65TH AVENUE, #196
LAKE OSWEGO, OR 97035
503.638.9993

DESIGN TCM
DRAFTED TCM
CHECKED JCH
DATE 2/10/09

HMC | Harris-McMonagle Associates, Inc.
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8740 SW Scoffins Street Tigard, Oregon 97223
Tel. (503) 639-3453 Fax (503) 639-1232

STAFFORD HILLS RACQUET AND FITNESS CLUB

CONDITIONAL USE PLANS
DIMENSIONED SITE PLAN

SCALE AS SHOWN
DRAWING NAME PRE-SITE
SHEET 2 OF 2

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Tennis for the Health of It !	

Attachment D
Applicant's Materials &
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PROJECT DESCRIPTION

The Stafford Hills Racquet and Fitness Club provides its members the highest quality tennis facility in the Pacific Northwest, with seven indoor courts and three covered outdoor courts. In addition to tennis, the Club offers a wide array of fitness programs, an outdoor pool and sun deck for summer fun, an Activity Center which includes a Kids Club daycare facility where members can enroll their youngsters for structured, supervised activities and play.

The heart of the Club is its tennis program. Members play on the finest indoor courts available in the Pacific Northwest. The clear span structure provides over 37 feet of unobstructed clearance over the net, and nearly 35 feet at the baseline. Light, bright, and airy, the facility utilizes natural light and ventilation to provide a comfortable playing environment. During warm weather, large roll-up doors along the perimeter are opened, bringing the outdoors in.

A central, elevated gallery provides an outstanding viewing opportunity to watch teammates, friends or family members play. Below the gallery, the central hallway provides easy access to all seven indoor courts.

Located adjacent to the indoor courts are three outdoor courts. These courts will covered in Phase 2 by a high-tech, removable fabric cover that allows the playing season to extend year round. During summer play, side panels of the fabric structure may be removed leaving only a canopy cover.

Unique to the Pacific Northwest, the Club also boasts a 2-story tennis practice facility dubbed the "Tennis Alley". This facility consists of four half-courts, with an automatic ball retrieval system in each. Similar to a baseball batting cage, a player activates the elevated ball machine located just beyond the net line for the desired ball feed. When ready, the player remotely starts the machine, and balls are fired at regular intervals. Once played, balls are collected by a perimeter trough and automatically fed back into the ball machine. Alone or with an instructor, players are easily able to work on their game through repetitive movements, without the hassle and rhythm-destroying breaks of collecting and reloading balls. Digital video will also capture practice sessions for player and coach evaluation.

The clubhouse provides a comfortable Centre Court Café, dining area and conversation areas on the main floor, and because the clubhouse floor is six feet above court level, members and guests enjoy a great view of the action on the courts while dining or visiting. The Centre Court Cafe is anchored by a central fireplace, with high-quality finishes and textures. The clubhouse includes executive-quality locker facilities, men's and women's hot tubs, massage and relaxation rooms for the use of club members and guests.

Upstairs, over 8,000 square feet of fitness program space is available, with free weights, state of the art cardio/theater and fitness machines. A large classroom flex-space is used for Pilates, yoga, aerobics, and other group fitness activities. The fitness studio overlooks the indoor courts on one side and the outdoor pool and deck area on the other. With high ceilings and abundant windows, the fitness area presents an attractive and comfortable exercise environment.

East of the clubhouse, an existing residence will be remodeled or replaced to provide space for the Activities Center, including a Kids Club, a fun zone where children engage in structured, supervised age-appropriate activities. At floor level this building also includes a snack shack, summer cabana, locker rooms and changing areas for summer use. On the second floor we will have multi-purpose rooms for additional children's activities, fitness classes, meetings or events. In addition to full-year members, Summer Members enjoy full access to the 25 yard. pool, sun deck, Splash Fountain, and picnic areas. This area provides a wonderful place for outdoor family fun.

While any building large enough to house a tennis court is going to be substantial, the design of Stafford Hills seeks to minimize the apparent bulk of the building, through horizontal elements, eye-catching details, and excellent landscape design. The view from Brown's Ferry Park is primarily one of trees and vegetation. Exterior lighting has been carefully designed to minimize spillover, and the use of up lighting has been avoided to preserve Dark Skies. Through the use of a generous 180-foot setback to the clubhouse and plantings at the property line, the neighbors in the Fox Hills subdivision to the east are minimally impacted by the larger structure.

A service road located west of the tennis courts mitigates the noise of refuse, recycling, and delivery vehicles from the homes to the east. Additionally, the road provides access as requested by TVF&R for fighting grass fires in the park area. Sufficient on-site parking has been included for all envisioned events.

If the City elects, the development of Stafford Hills could also include a dramatic expansion of Brown's Ferry Park to the south, including connectivity with Legacy Meridian Park Hospital. Approximately 10 acres could be transferred to the City at fair market value in return for park SDC credits, TIF credits and/or other consideration. In collaborative partnerships with the Wetlands Conservancy, the Audubon Society of Portland and Legacy Meridian Park Hospital, the wetlands area could be enhanced with appropriate plantings, walking paths, and other public amenities. Habitat for waterfowl and natural vegetation has been vastly improved, creating a learning and recreation center for students and recreants of all ages.

* * * * *

To bring the above described facility into reality, a conditional use permit is required. Under the current RL zoning district, a private club is permitted through the conditional use process. Following the conditional use permit, contemporaneous approval of a Disposition and Development Agreement may be appropriate to confirm development understandings and commitments by both parties.

The Applicant has conducted pre-application and several neighborhood meetings to garner insightful information reflected in this application. Wetlands delineation and a traffic report (submitted under separate cover) have been completed to assess projected impacts. This application is now submitted for review by Staff for recommendation to the Tualatin City Council. We respectfully request approval of this application.

Concept View

Stafford Hills Racquet & Fitness Club
Tualatin, Oregon 084030 February 2009

Zupancic Group
Real Estate Advisors and Developers

MYHRE · GROUP
architects

Concept View

Stafford Hills Racquet & Fitness Club
Tualatin, Oregon 084030 February 2009

Zupancic Group
Real Estate Advisors and Developers

MYHRE · GROUP
architects

APPLICATION FOR CONDITIONAL USE

City of Tualatin Community Development Department - Planning Division
18880 S.W. Martinazzi Avenue
Tualatin, OR 97062
503-691-3026

Case No. _____
Fee Rec'd. _____
Receipt No. _____
Date Rec'd. _____
By _____

PLEASE PRINT IN INK OR TYPE

Code Section 40.030 (4) (a) Conditional Use to allow PRIVATE RACQUET & FITNESS CLUB

_____ Planning District RL

Owner's Name JOSEPH P. AND ANITA L. KOZLOWSKI Phone _____

Owner's Address 5916 SW NYBERG LN. TUALATIN OR 97062
(street) (city) (state) (ZIP)

Owner recognition of application: Joseph P Kozlowski
Anita L. Kozlowski
_____
signature of owner(s)

Applicant's Name ZUPANCIC GROUP Phone 503-968-8200

Applicant's Address 5335 MEADOWS RD, STE 161 LAKE OSWEGO, OR 97035
(street) (city) (state) (ZIP)

Applicant is: Owner____ Contract Purchaser X Developer X Agent____

Other _____

Contact person's name JIM ZUPANCIC Phone 503-968-8200

Contact person's address SAME
(street) (city) (state) (ZIP)

Assessor's Map Number 21E 19C Tax Lot Number(s) 900

Address of Property 5916 SW NYBERG LANE Lot Area 15.6 acres

Existing Buildings (Number and Type) 1 - RESIDENCE 1 - OUTBUILDING / BARN

Current Use PRIVATE RESIDENCE

As the person responsible for this application, I, the undersigned hereby acknowledge that I have read the above application and its attachments, understand the requirements described herein, and state that the information supplied is as complete and detailed as is currently possible, to the best of my knowledge.

Name James J Zupancic Date 2/17/09 Phone 503-968-8200
Address 5335 MEADOWS, #161 LAKE OSWEGO, OR 97035
(street) (city) (state) (ZIP)

Attachment D
Section 2 – Application Form

LEGAL DESCRIPTION

IN THE COUNTY OF CLACKAMAS AND STATE OF OREGON

The Westerly 1698 feet of the following described property:

Part of the north one-half of the southwest one-quarter of Section 19, Township 2 South, Range 1 East, of the W.M., in the City of Tualatin, described as:

Beginning at a point in the west line of Section 19, Township 2 South, Range 1 East, of the W.M., 2183.94 feet North of the southwest corner of said Section 19, said beginning point being the northwest corner of a 9 acre tract of land described in Book 125, page 261, Deed Records of Clackamas County, Oregon, to Lizzie Nordurft, running thence North and tracing the west line of said Section 19 to the one-quarter section corner on the west side of said Section 19, a distance of 456.06 feet; thence East on one-quarter section line 2838.00 feet to the center of said Section 19, thence South tracing one-quarter section line 456.06 feet to the northeast corner of the tract of land described in Book 125, page 472, Deed Records of Clackamas County, Oregon, deeded to Walter Denny and Annie Denny, his wife; thence West 2838.00 feet to the point of beginning on the west line of said section.

EXCEPT that portion conveyed to Clackamas County by a deed recorded November 19, 1919, in Book 155, page 416, Deed Records.

AND FURTHER EXCEPT Commencing at a 5/8 inch iron rod approximately 20 feet southerly and 20 feet easterly of the northwest corner of the southwest one-quarter of Section 19 which is the true point of beginning; thence South 89° 40' 22" East, a distance of 307.22 feet to a 5/8 inch iron rod; thence South 5° 02' 19" East 139.75 feet to a 5/8 inch iron rod; thence North 89° 40' 22" West a distance of 318.91 feet to a 5/8 inch iron rod; thence North 0° 14' 37" West a distance of 138.91 feet to the true point of beginning. -----

STATE OF OREGON
County of Clackamas } ss

I, John F. Kauffman, County Clerk, for the County of Clackamas, do hereby certify that the instrument of writing was received for recording in the records of said county at

1988 JUN 30 PM 4:02

Witness my hand and seal of said county

John F. Kauffman
JOHN F. KAUFFMAN
County Clerk

Recording Certificate
CC-44 (rev 12/88) 88 26401

2

Maps

Attachment D
Section 3 – Legal Description

2 1E 19CA 010300
Thomas and Debra Conchuratt
19000 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010500
Robert & Julie Sepp
19065 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010000
William & Helene Sanders
19120 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010900
Michael & Deborah Reiss
19185 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 009900
Kyle & Theresa Petersen
19275 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 011600
Wichita LLC
5885 SW Wichita Street
Tualatin, OR 97062

2 1E 19CA 011800
Tim & Gelena Dedlow
5830 SW Wichita Street
Tualatin, OR 97062

2S 1 24 DA 00800
The Randall Robert
9500 SW Barbur Blvd. Ste 300
Portland, OR 97219

2S 1 24 DA 01000
Meridian Medical Office, LLC
6711 SW Amber Lane
Portland, OR 97225

2S 1 24 A 02601
Ken Hamilton
770 Tamalpais Drive 401-B
Corte Madera, CA 94925

2 1E 19CA 010400
Doug and Kevan Rasmussen
19025 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010100
Kip and Laurel Aszman
19080 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010700
Robert Dove
19135 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 011000
Ryan White
19220 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 011200
John & Barbara Brandes
19280 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 011700
Jim & Laurie Harris
5870 SW Wichita Street
Tualatin, OR 97062

2 1E 19CA 011400
Scott & Alyssa Weglinski
PO Box 1606
Tualatin, OR 97062

2S 1 24 DA 01200
Ani-Kal LLC
9500 SW Barbur Blvd. Ste 300
Portland, OR 97219

2S 1 24 DA 00900
The Wetland Conservancy
PO Box 1195
Tualatin, OR 97062

2S 1 24A 02800
Forest Rim Vaf, LLC
8100 NE Parkway Drive Ste 330
Vancouver, WA 98662

2 1E 19CA 010200
Mark Coolican
19050 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010600
Marajen O'Neil
19095 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010800
Walter & Angela Wrahz
19155 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 011100
Jake & Sarah Douglas
19260 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 011300
Anne & Robert Creasey
5725 SW Wichita Street
Tualatin, OR 97062

2 1E 19CA 011500
Michael Cooper
5845 SW Wichita Street
Tualatin, OR 97062

2S 1 24 DA 00100
Richard Reeves
15174 NW Troon Way
Portland, OR 97229

2S 1 24 DA 01100
Ani-Kal LLC
9500 SW Barbur Blvd. Ste 300
Portland, OR 97219

2S 1 24 A 02600
TRV Properties, LLC
770 Tamalpais Drive 401-B
Corte Madera, CA 94925

2 1E 19C 00300
William Wilson III Management

2 1E 19C 01200
Tualatin Senior Care, LLC
PO Box 3006
Salem, OR 97302

2 1E 19C 00200
City of Tualatin
18880 SW Martinazzi Ave.
Tualatin, OR 97062

2 1E 19C 01400
Meridian Park Hospital
19300 SW 65th
Tualatin, OR 97062

2 1E 19C 00700
Donald L. Waterman
18342 NW Gillihan Road
Portland, OR 97231

2 1E 19C 02000
Legacy Health System
1919 NW Lovejoy
Portland, OR 97209

Stafford Hills Racquet and Fitness Club
Pre-Development Neighborhood Meeting

Attendee Sign-In Sheet[1]

February 12, 2009

NAME	ADDRESS	EMAIL or PHONE
1. Bill Leong	4840 SW Western Ave Beaverton	Bill@PNW.USTA.com
2. Roy HANASH	5373 SW Joshua	roy-h@comcast.net
3. Brenda Buck	5373 SW Joshua St Tual	roy-h@comcast.net
4. Angela Wrahtz	19155 SW Mobile Pl., Tualatin	angela.wrahtz@comcast.net
5. Tim Dedlow	5830 SW WICHITA ST. TUALATIN	TimDedlow@COMCASTNET
6. Joe & Beverley Lambert	19678 SW 57th Ave Tualatin	
7. Leann Bennett	11840 SW Parrett Rd Sherwood	lbennette pnw.com
8. Tonya Kay	6015 SW Nursery Lane Chesapeake Dr	t.kay@christen.com
9. [illegible]		
10. Doug Rasmussen	19025 S.W. Mobile Pl.	Tualatin -
11. Terrie Petersen	19575 SW Mobile Pl	~~Tualatin OR~~ terriep@comcast.net
12. Julie Sepp	19065 SW Mobile Pl	jlsepp@hotmail.com
13. Susan Blotzer	19050 SW Mobile Pl	susanj13@AOL.com
14. Laurel Aszman	19080 SW Mobile Pl.	laurel.asz@comcast.net
15. MARK COOLICAN	19050 SW mobile	COOLICANML@aol.com
16. Brett Slater	6060 SW Sequoia Dr	brettaslater@gmail.com
17. DEBBIE REISS	19185 SW Mobile PL	debbie.reiss@comcast.net
18. Barbara Fronczak	19135 SW 52nd Ct	gfronz22@earthlink.net
19. Janice Dove	19135 SW Mobile Pl.	janice-dove@mentor.com
20. Bob Dove	"	bob-dove@mentor.com
21. Brad Bullock	8830 NW Copeland St Portland 97229	bradley.bullock@comcast.net
22. DON WATERMAN	18342 NW Gillihan Port 97231	H2otter38@MSN 503-936-5058
23. Nancy Waterman	18342 NW Gillihan Port 97231	" " "
24.		
25.		
26.		
27.		
28.		
29.		
30.		
31.		
32.		
33.		

[1] For internal use and follow up communications only.

Questions and Answers

From the Neighborhood / Developer Meeting

February 12, 2009 - 7:00 pm - Legacy Meridian Park Hospital Education Center

Jim and Marla Zupancic opened the meeting with a description of the development, showing the preliminary site plan and renderings included in the CUP application binder. Questions were asked during and after the presentation, and there were several comments as well. The essence of questions and summary of answers are provided below. This is not verbatim.

1. Q: Who are you building this for, or are you the owner and operator?

   A: Jim and Marla Zupancic will own the facility, and take an active leadership role in the management.

2. Q: How will the development impact the mature trees that are on the property? Being a neighbor, I would like to see them preserved to help screen the building.

   A: The drawings here are "conceptual" in that things are still evolving. However, we are committed to creating a facility that blends nicely and fits with the neighborhood, not one that screams for attention. We are interested in preserving the mature trees to the extent possible.

3. Q: How many teaching pros? How much court time will be allocated to members vs. leagues, school programs, and other uses?

   A: We plan on having the best teaching staff in the Pacific Northwest. We know that at many clubs, access to the courts for playing time is the pinch point, and we are going to manage it to provide maximum member access. For that reason, membership numbers will be limited.

4. Q: Hours of operation?

   A: Not fully defined at this point, but early morning to late evening is expected. We do know that this will not be a 24 hour facility.

5. Q: What will the pool be like?

   A: After considering the clientele and the location, a large outdoor pool, sundeck, terraces, and picnic areas seems appropriate. In addition, we will have a summer cabana, locker and changing rooms.

6. Q: How many members estimated?

   A: We don't have the numbers worked out yet, and the possible range is too broad to be useful.

7. Q: Is cost of childcare included in membership?

   A: Not known at this point. The childcare facility is not a drop off daycare business, however. The parents must be on site to use the childcare services.

8. Q: Is pool year round? Is it heated? How big?

   A: The pool will be heated; we are planning on solar thermal system. Not sure about a cover at this point. The pool is planned to be 25 yards long x 6 lanes wide.

9. Q: Will there be a Pro shop?

   A: Yes, on main floor of the Clubhouse.

10. Q: Does the plan still include transferring park land to the City and creating trails, paths, interpretive centers, etc.?

    A: That may happen, but it is up to the City. We are still working with Wetlands Conservancy, Audubon Society, Metro, Meridian Park, and the City Parks department to help make it happen. The previous plan included a transfer of ground to the City in exchange for permit credits and possibly other consideration. We don't want to transfer it to the City if there aren't means in place to actually improve it with trails, etc. This is an open item for discussion with the City.

11. Q: Will you be serving alcohol?

    A: We plan on having beer and wine service at the Center Court Café.

12. Q: Would you consider racquetball courts?

    A: No. That is a market already well-served by 24-Hour Fitness and Club Sport. Neither of those clubs offer tennis courts.

13. Q: What about traffic on 57th? Look at the traffic near 24 hr Fitness and Club Sport.

    A: We have updated the traffic study by Kittelson to the now proposed use. The "fitness" component of the facility is not a regional attractor – most fitness members select a gym for convenience, either close to home or close to work, or on the way between the two. Therefore, the "gym peaks" will not generate significant additional traffic; they will be formed by people already traveling to or from their homes. There may be a noon peak from medical employees who would walk or bike to the facility. (Several members of the audience commented that tennis clubs are not like fitness centers. It was recommended that if there are concerns, go up to Mountain Park, as that facility is surrounded on all sides by residential development and narrow streets. Traffic isn't an issue at other tennis clubs.)

14. Q: Do you own the property?

    A: It is under contract, we expect to close imminently.

15. Q: What security measures will be taken at night?

    A: A security fence is required to keep children out of the pool area. We are considering a gated access to the parking lot, but there are pros and cons to that. Lighting would probably be used, to some extent, but we would prefer not to have the parking lot lit up all night long, both from an energy standpoint and from being so close to the park and neighbors.

16. Q: How tall is the building?

    A: Details are still being worked out, but the courts require 37' clear at the net. The exterior of the Clubhouse is around 40'. The residential structure previously under consideration was significantly taller.

17. Q: What is the separation between parking and the back yard?

    A: The building is roughly 195' from the property line. The parking is set back 10' from the property line. Code requires 5'. It is hard to see on the site plan, but there is a 10' wide planter for vegetation in that area.

18. Q: Could parking be arranged so the headlights don't shine in the backyards?

    A: The 10' setback from the property line provides a good space for hedges, fencing, or other features to help block that light. That is good feedback and we will address it in the plans.

19. Q: Will you be hosting events? What is the impact of those events?

    A: Yes, the City and USTA leagues do have events. On tournament days, typically all other tennis programs are curtailed. Matches still take 90 minutes, and there are only 10 courts, so it isn't like a baseball tournament where everyone shows up and leaves together. (Bill Leong, USTA Regional Director, said that Portland is the only city in Oregon that has enough facilities to run the regional tournament. The tournament takes place at several clubs in the city simultaneously. The teams shuttle to their designated locations, play, and then leave. So, the teams are distributed around the city, and as many as 2000 players have competed in this tournament. It determines who gets to represent the NW in the national tournament.)

20. Q: (More of a comment) 1. I am a member of both fitness and tennis clubs. I want to reiterate that they are different animals as far as the density of traffic and people. 2. You aren't really showing it clearly, but as a resident of the neighborhood, I would really like to see earth tones and muted colors.

    A: Yes, we agree. Again, the point is to blend in and fit the surroundings, not overpower them.

21. Q: What will the monthly fees be?

    A: Not determined at this time, though it can be expected to be competitive with other comparable facilities. Mountain Park is about $100 / month for single, $160 / month for couple. Club Sport family membership is over $200 / month now.

22. Q: Can we get a copy of the application for the website?

    A: Absolutely. We are also posting summary information on www.staffordhills.com.

23. Q: (Comment) I have been director of the Lake Oswego Tennis Center for over 20 years. For those of you living near this facility, I urge you to take a look at that facility. It is built right in the neighborhood, and the noise, lights, etc. have not been an issue.

    A: Thank you. Bear in mind that LO Tennis Center is a municipal facility, Stafford Hills will be private, and our "outdoor courts" will be covered in Phase 2 by a fabric structure.

24. Q: Won't the sound of tennis ball bouncing continuously be aggravating to the immediate neighbors?

    A: (From other attendees) Even on outdoor courts, you can't hear them more than 10' – 15' away. The sound just doesn't carry.

25. Q: What about lighting in the building? We don't to be looking at glowing oil change bays. Really, we don't want to be looking into any windows.

    A: The rendering makes it look bright, particularly on the PowerPoint. We are still determining the best treatment for the rollup doors. They are necessary to deal with floodwaters, and they are a great source of ventilation and fresh air for pleasant weather playing. However, they create lighting issues both ways – that is, not only do they let light out, but they let light in which can be distracting. The goal is to have uniform lighting on the courts. We wanted to avoid, however, a blank wall that seems impersonal or imposing.

26. Q: Any thoughts that the pool might be something other than recreational?

    A: Not sure at this time. It is still under consideration, but we don't want to try to be too many things. This is primarily a tennis club, not an aquatics facility. If we can get a pool big enough for lap swimming, that is our goal. Mostly, however, it is for personal and class exercise, swim lessons and the enjoyment of families in the summer.

Requirement 1: The Use is Listed as a Conditional Use in the Underlying Planning District.

The subject property is currently zoned Low Density Residential Planning – RL. Tualatin Development Code (TDC) section 40.030(4)(l) lists "Golf course, country club, private club" as a permitted conditional use when authorized. The proposed tennis and fitness facility is a private athletic club. Therefore, this requirement is met.

Requirement 2: The Characteristics of the Site are Suitable for the Proposed Use, Considering Size, Shape, Location, Topography, Existence of Improvements and Natural Features.

- ***General Location and Surroundings***

The subject parcel, Tax Lot 900, is located in Planning Area 5. Planning Area 5 is described as follows in the TDC:

> **Section 9.035 Area 5.**
> Located east of the Interstate 5 Freeway, this area is primarily designated for low density residential uses, but contains substantial multi-family and commercial use north of Sagert Street and west of SW 65th Avenue. Meridian Park Hospital is located in this area on the northeast corner of SW 65th Avenue and Borland Road. Commercial land uses are located along the Interstate 5 Freeway, and on Nyberg Street from I-5 to SW 65th Avenue. A major greenway loop surrounds a majority of the area's perimeter, including a greenway shown along the Tualatin River frontage. A new neighborhood park is proposed. The eastern and southern boundaries of this area are adjacent to land outside the Urban Growth Boundary.

Since the above description was written, the City has accomplished several of its planning goals, including the creation of walking and biking paths along the Tualatin River, the dedication of Browns Ferry Park with walking trails and interpretive guides, and roadway and intersection improvements along SW 65th Avenue, Nyberg Road, and Borland Road. The recent redevelopment of the Sweetbriar Inn property into the Nyberg Woods shopping center has significantly increased the commercial uses of the area closest to I-5, and it can be assumed that at some point, redevelopment of the commercial district south of Nyberg and west of SW 65th Avenue will also take place.

The portion of Area 5 east of SW 65th Avenue is dominated by traditional, suburban-scale residential subdivisions on ground zoned for low density residential development (RL). These lots are typically 6,000 to 8,000 SF lots with contemporary-sized two story homes

and the subdivisions are substantially built-out. Bridgeport Elementary is located adjacent to these residential areas.

Adjacent to SW 65th Avenue, Meridian Park Hospital, Meridian Park Senior Care facility, and associated medical office buildings provide commercial and senior housing uses. The Browns Ferry Park property remains under Medium High Density Residential (RMH) zoning, though this is obviously not going to be developed now that it is a public park. The undeveloped property south of the subject parcel and east of Meridian Park Hospital is owned by Legacy Health Systems, and we understand that this area is now or soon will be the subject of a separate PMA application to rezone the property to "MC".

Nyberg Lane and Borland Road provide the main entrance points to the residential subdivisions, and Nyberg is the easier access if coming from I-5. Borland Road to Stafford Road offers an alternate route to I-205. The Tualatin River defines the northern edge of the area, and I-205 defines the southern edge.

The uses and zoning in the immediate properties surrounding the subject parcel are as follows: to the north, Nyberg Lane, and north of Nyberg Lane, Browns Ferry Park under RMH zoning; to the east and southeast, Fox Hill III residential subdivision zoned RL; to the south and southwest, undeveloped land held by Legacy Health Systems zoned RL, and the Meridian Park campus and Senior Care facility zoned MC (Medical Campus); to the west, SW 65th Avenue and the commercial uses on the west side of SW 65th zoned CO and CG (Commercial Office and Commercial General), as well as a now-vacant day care facility located at the northwest corner of the subject parcel zoned RL (we understand this lot may be the subject of a future PMA application to permit change of use to medical/office); and to the north and northwest, north of Nyberg Lane, the Forest Rim apartment complex under RMH zoning and the RV Park of Portland property currently zoned RH (High Density Residential).

We have included a recent aerial photo of the area surrounding the subject parcel, as well as a portion of the community plan map for the area showing current zoning. See Tabs 19 and 20.

- ***Site Topography and Constraints***

The western two-thirds of the subject parcel consists largely of wetlands and the riparian zone associated with Nyberg Creek (also called Nyberg Slough on the FEMA maps). The majority of the property lies within the 100-year floodplain, with a portion at the southeast corner above the flood line as delineated by Clean Water Services (see Tab 10).

In addition, an 18-inch gravity-flow sanitary sewer runs from the eastern property line southwest to the south property line, roughly following the 100-year flood line.

The eastern third of the site is mostly flat, with a hill rising at the southeast corner. An existing house and barn are currently located just south of (and above) the 100-year flood plain contour. A PGE utility easement and overhead power line roughly defines the break between the eastern, developable portion and the western, resource area of the site.

A wetlands delineation has been completed on the eastern portion of the site (see Tab 8). Based on recorded survey data, the pond located in the north central area of the site was actually constructed in 1985 as a mitigation site for the unauthorized filling of wetlands used to create the building site on Tax Lot 700, located at the corner of Nyberg Lane and SW 65th. The narrow "finger" of uplands stretching from the eastern third into the central portion of the site is the spoils pile from the excavation of the pond.

- ***The Proposed Development in Relation to the Site***

Once constructed, the proposed Stafford Hills Racquet & Fitness Club will add a high-quality, private athletic club on the eastern portion of the subject parcel. The main tennis facility consists of seven covered courts, constructed as a wet flood-proofed shelter with roll-up doors. In the event of a flood event, the courts would simply be allowed to flood. The Clubhouse Building, adjacent to and east of the indoor courts, is envisioned as a 2-story facility and would be constructed above the flood plain elevation. The existing house on the site would be converted to an Activity Center and kids' club facility, snack shack, and cabana for a proposed outdoor pool located just to the west of the house. Adjacent to the house, and utilizing a common roof, a two story "tennis alley" practice structure will be constructed. (Depending on the costs, the existing home may be demolished and recycled for materials to be used in a new building in combination with the tennis alley facility.) Outdoor tennis courts would be located south of the indoor courts; the existing barn will be demolished and recycled to the extent possible. Parking is located in the easternmost portion of the property, with the main entrance located west of the current driveway. A separate service entrance is located along the western side of the tennis facility. This entrance would be used by vendors, refuse and recycling trucks, laundry, and other suppliers and service vehicles. It will also provide access for emergency vehicles.

To allow for appropriate setbacks and grade at the tennis facility, the low-grade wetlands in the eastern portion of the site will be filled. In exchange, the uplands in the central portion will be excavated to restore the original grade and improve the wetlands in the western portion by creating contiguity between the northern and southern portions.

The western 10+/- acres may be conveyed to the City or a suitable third-party for public use. By coordinating with Legacy Health Systems, a network of trails and interpretive facilities could provide connections between Nyberg Lane, the hospital, the proposed project, the existing subdivisions, and Borland Road. This would open up bicycle and walking commutes to the employment centers from the Fox Hills neighborhoods, as well as provide recreational and exercise facilities for hospital staff and visitors.

Thus, the proposed project could provide additional public land to add to Browns Ferry Park, while providing a complimentary, lower intensity recreational use between the high-intensity commercial areas and the single-family residential development. In addition, the project will provide a buffer and attractive visual screen between Browns Ferry Park to the north and the future medical-facility development on the vacant land to the south owned by Legacy Health Systems.

In addition, the environmental surveying shows clearly that efforts should be made towards extending Browns Ferry Park to the south by following the wetlands and riparian zone of Nyberg Creek. While the existing environmental overlays protect the resources from development, the property is currently in private ownership and is off-limits to public use. From our discussions with the City's Parks and Recreation department, this area has been identified as an acquisition property for a number of years. The proposed project presents an excellent opportunity for the City's residents to obtain additional public land along with trails and infrastructure to improve pedestrian and bicycling connectivity.

- ***The Proposed Project in Relation to the Existing Neighborhood & Surroundings***

The proposed project should be judged from at least three different public viewpoints; the current neighborhood residents, the future users of the proposed development, and the public at large who would come into contact with the development in a less intense manner, e.g. by working in the area or visiting the parks.

From the existing neighborhood resident's view, the proposed project presents an intensity of development higher than some may expect, but ultimately lower than other uses that are allowed outright, e.g. a large daycare facility. We recognize that traffic levels are a major concern, and we have provided a traffic study in conjunction with this application. In summary, the traffic study shows that Nyberg Lane and the associated interchanges can absorb the increased traffic generated by the development without reducing the level of service for all users of the road.

While the traffic study assumes a conservative traffic pattern, wherein most patrons utilizing the facility are assumed to be arriving via the major regional roads such as I-5 and Borland/65th, our membership projections include a large portion of people who will use the facility because they are already in the area. The tennis courts will be a "regional" attraction; so the trips associated with the courts will indeed follow the distribution used in the traffic study. The facility will also offer, however, "summer memberships" and "fitness memberships." We estimate that up to 60% of "summer memberships" – those that allow use of the pool for swim lessons and summer fun – will be held by local neighborhood families. "Fitness memberships" allow use of the fitness facility and club amenities, but not the tennis courts, and these members will also be largely drawn from the local area. This is based on our target market approach: rather than compete with Club Sport and 24-Hour Fitness as a regional fitness center, the fitness component of Stafford Hills is sized to provide a convenient location for nearby residents and healthcare employees to work out. Thus, we predict up to 50% of the trips to the fitness facility to be "stop-off" trips, as patrons travel to and from work or home, rather than new trips generated by the facility. We also expect that many of the "fitness members" will arrive on foot or on bike, since they will be coming from nearby employment centers.

For most residents of the eastern subdivisions, interaction with the development will consist primarily of passing by it on their way to and from home. (Some, however, have already expressed interest in joining the club!) From the standpoint of passing by on Nyberg Lane, we will make every effort to preserve mature trees located at the north property line, and if they cannot be preserved, to replace them with appropriate trees. These trees will help break up and block the site from street view at that point. So, when approaching from the east, the building will be essentially hidden by the existing homes and trees located on Mobile Place until the entrance is reached, then will be hidden again by the mature trees noted above. Additionally, trees and vegetation in conjunction with a water quality swale will be planted along the north side of the building, effectively softening and partially blocking the facility from view. Finally, for traffic approaching from the west, trees planted at appropriate spacing along the south side of Nyberg Lane will help break the view of the facility.

To the extent the building does show, however, it will present a pleasing elevation. Many indoor recreation facilities look like unappealing warehouses, with no windows or other features to break up the mass of wall. However, we believe that natural light and ventilation provided by large roll up doors and windows is necessary to create a high-quality tennis experience – in essence, outdoor tennis but sheltered from the wind and

rain. In addition, architectural elements and vegetation will be used to soften the building along Nyberg Lane.

The residents of Mobile Place and Witchita Streets will have the most direct interaction with the development, since the site is located closest to their homes. The project includes several features that serve to mitigate the impact.

First, we are currently showing a 195-foot setback from the east property line for the main building (See Preliminary Site Plan, Tab 21). As shown on the included diagram, Tab 22, this setback will help to reduce the viewing angle associated with the top of the building, as well as reduce the overall field of view that the building will occupy. As the diagram shows, trees from 18 to 20 feet tall along the property line will effectively block the view of the proposed building, even from second story windows. Just as importantly, the trees will preserve the backyard privacy of the homes on the west side of Mobile Place. The setback similarly keeps the building largely out of sight from the neighbors on the east side of Mobile Place.

One neighbor's concerns were expressed at the neighborhood meeting regarding potential "glow" from the windows in the tennis building, as well as lights from automobile headlights shining into the back yard. We will address the headlight issue through vegetation, fencing, or other features to block the light. Since we don't have the lighting designed yet on the interior, we will review the neighbor's concerns as the design progresses. Some preliminary thoughts include opaque vs. translucent doors, interior curtains or shading screens, and exterior shadowing features.

The noise generated by the club patrons and associated traffic is also a concern. We have routed the main traffic access as far west as possible, and will utilize the parking closest to the eastern property line for staff parking. This will cut down the amount of traffic traveling closest to the neighboring lots. Additionally, landscaping berms and vegetation along the eastern property line would serve to further reduce noise from traffic and the outdoor recreation areas. Additionally, by incorporating a western service road, noise associated with truck traffic to the facility will be completely blocked by the tennis building itself.

The entrance area is located approximately 180 feet from the east property line, helping to mask and buffer noise associated with loading and unloading at the building entrance. Additionally, the outdoor aquatic recreation areas are located west of the existing home, and below the top of the hill, so that noise associated with common area activities is blocked from all neighbors to the east and south. And, the trees that provide the view buffer will also help buffer the outdoor noise generated by patrons.

From the standpoint of a visitor to the park or a trail user, the building and common area landscaping will present a transition from the park areas in the north to the medical corridor to the south. Because the parking area is located east of the building, the park users will not be viewing a "sea of car tops" when they look to the southeast. Instead, the private landscaping will blend naturally into the public spaces.

- ***The Proposed Development in Relation to the City at Large***

The subject parcel and the area to the south represent some of the last undeveloped parcels in this area of Tualatin. The proposed development would provide the economic incentive for the conveyance of the wetlands resource areas to the City for public use. In addition, through cooperative design and coordination with the hospital, much of the existing and proposed campus area could be better connected to Browns Ferry Park as well as the Tualatin Greenway. Discussions with the Legacy Meridian Park administration have been encouraging. The administration has expressed an interest and a desire to expand the pedestrian trail system used by hospital staff, patients, and visitors regularly for exercise and contemplation.

In addition, the planning efforts embodied in the Tualatin Tomorrow plan show that providing high-quality recreational opportunities are a priority for the city. With the recent defeat of the parks bond and bleak economic outlook, it will be difficult for the city to provide new public facilities in the near future. The proposed development, while private, nonetheless presents an opportunity for city residents to enjoy a local tennis and fitness facility. Youth and family tennis and swimming programs are a major component of successful facilities, and so the proposed development will help foster a healthier community as well as provide opportunities for keeping the next generation active. (See Tab 23, USTA poster: Tennis – For the Health of It!).

The paths and interpretive areas created in the western portion of the site also improve the community at large by opening up these resource areas to public access. Through partnerships with groups such as the Wetlands Conservancy, the Audubon Society, the United States Tennis Association, and the local schools, the wetlands area and the proposed development work in conjunction to help create places for learning opportunities while maintaining and improving the natural function and attributes of the wetlands.

Besides the interaction of the public with the facility from an architectural standpoint, the proposed development represents an opportunity for the city to gain a new member of the business community. A new indoor tennis facility has not been built within the Portland

Metro area in over 30 years. We are receiving weekly communications from players, league associations, coaches, teachers, and the national sanctioning body (USTA) expressing delight that a new facility is under consideration. There are currently waiting lists for memberships in the most popular tennis clubs, and the availability of courts in the Metro area means most players play less than they otherwise would. By every measurement available, a tennis facility in this geographic area will be successful if constructed appropriately and operated properly.

We currently plan for a staff of up to 40 full-time and up to 20 part-time employees. In addition, seasonal activities surrounding the outdoor pool present additional employment opportunities. With its proximity to the neighborhood, we expect many of the part-time and seasonal employees to be high school students commuting on foot or bike from the surrounding homes, thus providing youth employment opportunities outside the traditional fast food or retail environment. We are also committed to providing opportunities for internships with high school and college students in the operation, marketing, and management of the on-going business.

Requirement 3: The Proposed Development is Timely, Considering the Adequacy of Transportation Systems, Public Facilities, and Services Existing or Planned for the Area Affected by the Use.

As illustrated by the traffic impact study included with this application, the facility does not significantly impact the transportation system, including the neighborhood system to the east or the arterial system and I-5 interchange to the west. Typically, the users of the tennis courts will be arriving and leaving throughout the day, as a tennis court session lasts about 75-90 minutes. The fitness facility will have a more pronounced peak in traffic, typically occurring in the early evening after work. A smaller peak occurs in the morning before work, and then another after the morning school drop-off period. It should be noted that because the fitness facility is not a dominant use, and is sized as more of a "neighborhood" facility, we expect much of the morning and evening traffic to be local residents dropping in on their way to or from home. Additionally, the medical center workforce represents a substantial market sector, and it can be assumed that these users will often simply walk from the hospital area to use the facility.

As an infill site, water, sewer, and utilities are already in place and available. Part of the design and permitting process includes verification of capacity for all utility systems.

Requirement 4: The Proposed Use Will Not Alter the Character of the Surrounding Area in Any Manner That Substantially Limits, Impairs, or Precludes the Use of

Surrounding Properties for the Primary Uses Listed in the Underlying Planning District.

The RL district is primarily a residential district. However, the area to the east is essentially "built out", and the area to the north is already reserved as park land. The area to the south is owned by Legacy Health Systems, and we understand that the hospital is preparing an application to have the vacant parcel rezoned to "Medical Campus" (MC) designation. Thus, the only area potentially left for a large scale residential development is presumably not going to be residential, and the proposed use as a private athletic club is complimentary to medical office and professional buildings. As stated above, it is anticipated that the medical community will provide a fair portion of the facility users.

As to the impact on the existing residential community, we have received numerous communications in support of this project from the adjoining neighborhood residents. We believe that the facility's proximity will be a "selling point" for marketing homes in these neighborhoods, and will act to help support property values. In any event, through careful consideration of setbacks, landscaping, and layout, the facility will not impair or negatively impact the existing residential uses. In addition, even if the hospital's proposed zone change does not occur, the facility will not impair the development of residential homes to the south.

Finally, the target market for a private tennis club is not unlike the market for a private golf club. In fact, some tennis club members are members of two or more tennis clubs, and many are also members of country clubs. To cater to that market, the facility must be designed to a high standard, and it must be operated accordingly. To do otherwise compromises the club's ability to attract and maintain memberships.

The following is a preliminary summary of the types of programs and services to be provided by the club, and is subject to change:

Program Description

1. *Tennis Facilities and Instruction*
   a. Tennis Courts (7 indoor/3 outdoor). The Club will initially offer 7 indoor and 3 outdoor hard (acrylic surface) courts. During Phase 2, the 3 outdoor courts will be converted to covered courts once membership levels warrant. The courts will be constructed of the most advanced playing surface available.

      Coloration of the courts will also attractive and unique. This coloration will provide a distinctive contrast to the yellow ball that makes it easier for players and spectators to see the ball. No other courts in the Portland area will offer this combined distinction of superior playability, comfort and ball contrast.

The inside courts will also benefit from unique side-opening walls that will permit light and air-flow from the outside. A supplemental heating system is being considered to help moderate temperatures during the coldest months.

The 3 outdoor courts will be configured to accept a removable cover, the material of which is still under study. It may be a fabric cover or a bubble cover. The covering will be installed in Phase 2 once adequate membership numbers have been assured and experience with court capacities and demand have been studied.

Upon completion of Phase 2, the Club will offer 10 courts that are fully covered and weather proof, but have the capability of opening walls to allow for air flow during more temperate months. These courts will soon become the most sought-after venue for discriminating players, as well as for training, tournaments and special events.

b. Tennis Alley. An innovative offering available only at the Club, and inspired by a similar amenity offered in Manhattan, N.Y., the Tennis Alley is comprised of four (4) indoor half-court singles courts that allows players to practice or be instructed off the regular courts with a ball machine, and have the 1 hour session recorded by a digital video camera for later review and analysis. The motivation for this Tennis Alley concept is the fact that players who wish to practice without a partner must do so against a rebounding wall or with a ball machine on an open court. Using an open court for a single player is a very inefficient use of court time that requires setting up a ball machine, hitting balls, collecting the balls and repeating the sequence. Hitting against a wall, while often acceptable method for certain practice, often results in the ball rebounding at an unintended angle. Or, the rebounding wall infrequently provides the type of bounce and/or speed of ball that is optimal for certain types of practice. In addition, very few venues offer digital video so that players and teachers can analyze serves, forehands, backhands, volleys and overheads.

The Tennis Alley addresses this need by providing an indoor practice venue that is as wide as a singles court, and slightly longer than a half court. A regulation net is suspended allowing the player a virtual full court experience. A ball recovery trough will direct balls via a system of gutters back to the ball machine so that practicing players will have a virtually endless supply of balls without having to pick up balls to recharge the ball machine. The ball machine will then feed balls back to the practice players in the programmed manner, at the speed and angles desired. This will enhance practice time by making practices more efficient and effective.

The four Tennis Alleys will essentially expand the available courts to 14 courts, allowing the indoor courts to be used by more doubles players and virtually eliminating single practice players on the open courts. The Tennis Alley will also increase the number of available courts during peak hours.

c. Hours of Operation. Initially, the Club will be open from the hours of 5:30 AM to 10:00 PM every day excepting selected holidays. Hours may be reduced on Saturdays and/or Sundays and may be expanded on weekdays as demand requires.

d. Reservation Systems. Since one of the main complaints of many potential members is the inefficient and frustrating court reservation system used other local clubs, a convenient and user-friendly proprietary reservation system will be used that will permit Members to make court reservations.

e. Professional Instruction. The Club will provide the area's best teaching professionals who, along with the Tennis Director, will offer private and group lessons at the Club. These teaching professionals will be USTA Certified and possess the highest credentials and experience levels.

f. Leagues and USTA Affiliation. The Club will participate as a USTA member club, host City and USTA league play and be a member of an affiliation of associated clubs permitting its members to play at other clubs when out of town.

g. Integration with local schools. An important relationship will be developed with coaches and players from local high schools, and opportunities will be encouraged to provide support for those programs. A vibrant youth and juniors program will be developed such that the Club will become known as an avid supporter of junior development programs resulting in highly ranked youth who perform well in state, regional and national tournaments.

2. *Clubhouse and Amenities*

a. Entrance/Lobby. The foyer will be open, airy and inviting. Members and potential members will be greeted cheerfully by a member of the Membership Services staff and checked in. Information concerning Club events and other information will be displayed electronically in the Lobby. The Entrance/Lobby will be the control point through which all members must pass to enter all Club amenities.

b. Centre Court Café. The Centre Court Café is located in the core of the main floor of the Clubhouse. The Café will offer a range of beverages (coffee, lattés, tea, hot chocolate, juices, smoothies, sodas, etc.), breakfast items such as muffins, croissants, breads, muesli, etc., and all-day menu to include soups, sandwiches, fresh baked cookies and daily specials. The quality, freshness, taste and presentation of all food items will be emphasized so that the Café will develop a reputation of consistent excellent quality and service that exceeds Member expectations.

c. Pro Shop. The Pro Shop will offer members the convenience and choice of purchasing tennis and fitness clothing, shoes, accessories, tennis supplies and a Club line of spa products. The Pro Shop will be conveniently located in the Lobby and racquet stringing services will be available.

d. Locker Rooms and Related Amenities. The Club will offer separate Men's and Women's Locker Rooms in the Clubhouse. A changing facility and small locker room will also be offered at the Activity Center for use by children and during summer pool hours. Locker rooms will stay immaculately clean and well organized. Showers, toilets and dressing areas will be well maintained and ventilated.

e. Massage Therapy. A special Club amenity will be two Massage Therapy treatment rooms connected to a meditation waiting room. Design of this portion of the main floor will carefully integrate spa-like serene and quieting features to provide members with a memorable and relaxing treatment comparable to spa treatments at world-class five star resorts.

f. Fitness Floor. The entire 8,000+ sq. ft. 2nd floor of the Clubhouse will constitute the "Fitness Floor". The Fitness Floor will offer state of the art cardio/theater, strength training, free weights, weight machines and stretching stations along with classroom studios for fitness classes. The Fitness Floor will offer commanding views of the inside courts and the outside pool and recreation areas. State of the art exercise equipment will be employed to offer Members the best fitness and personal training experience in the area.

3. *Fitness Facilities, Equipment and Personal Training*

a. Cardio Theater. Quality LifeFitness , PreCor or comparable aerobic cardio equipment will be offered to Members on the Fitness Floor. Arrangement of the equipment will allow for convenient and comfortable use, and sufficient

quantity of machines will be provided so that Members will find reasonable access even during peak demand.

b. Strength Training. Free weights and weight machines will be provided to complement other fitness offerings.

c. Stretching and Anaerobics. Identified stations will permit comfortable stretching and anaerobic activities apart from the cardio and strength training.

d. Personal Training and Coaching. Central to the 2nd Floor Fitness Amenities will be the constant presence of personal trainers who will be working with and supporting Members. Trainers will instruct on the proper use of equipment and the most effective means of accomplishing Members' personal fitness objectives.

4. *Fitness and Recreational Classes*
   a. Yoga. Yoga classes will be offered by trained Yoga teachers and professionals.

   b. Pilates. Pilates classes will be offered by trained Pilates teachers and professionals.

   c. Others. As demand for other fitness classes becomes apparent, such classes will be offered to the Members. In some cases, the Fitness Class space may be licensed for use by other professionals to train their students in areas such as Ballroom Dance, Karate, Taekwondo or other martial arts. In addition, dance or other instruction may be offered to supplement Club offerings.

5. *Food and Beverage Services*
   a. Centre Court Café. A full range of beverages, soups and freshly made sandwiches will be offered from the Centre Court Café.

   b. Poolside Snack Bar. During summer operation months of the pool, a poolside snack bar will service outside guests with summer food fare such as hotdogs, hamburgers, drinks, candy and snacks.

   c. Vending Machines. Operating during all open hours, these vending machines located in the Clubhouse will provide members with soft drinks, sports drinks, cold water, candy and snacks.

6. *Child Care and Youth Programs*

   a. Child Care/Activity Services. Child care and children's activity services will be provided to Club members as a valued amenity, especially to those young parents who would not be able to use Club facilities without such a service. Children will be cared for and supervised in the Activity Center and segregated by age groups. Active play and outdoor learning experiences will be emphasized, weather permitting. Other learning activities will be offered to make the child care experience constructive and meaningful. Above all, child safety will be focus. A video monitoring system will be available at the Clubhouse to permit parents to view activities and a communications system will be provided to allow Child Care Team Members to connect with parents in the event children need their parents. As noted in our neighborhood meeting, the childcare facility is not a "drop-off" facility. Parents must be on-site to utilize the program.

   b. Children's Parties. During selected times, Activity Center facilities will be available for scheduled parties for children. The parties will be "packaged" so that food, favors and staff support will be provided.

   c. Youth Tennis Instruction and Clinics. The Club will provide tennis instruction and clinics for all ages and skill levels. Youth camps and clinics will be organized to provide year-round opportunities for young people to improve skills and learn the game.

   d. Youth Fitness Clinics. In addition, youth fitness clinics may be offered to supplement physical education training that is being reduced and in some cases eliminated in public schools. If demand exists, classes may be offered after school and utilize a wide range of Club facilities.

   e. Advanced Fitness Training for Student-Athletes. This demographic area produces some of the finest student athletes in the state. The demand for advance fitness training for these athletes is great. Relationships with local schools and personal trainers who specialize in working with these advanced student athletes will allow these athletes to train with their trainers during off-peak hours and utilize state of the art equipment.

   f. Multi-Purpose Room/ Rental Program. The Activity Center will contain multi-purpose rooms that will be used flexibly to support a number of functions. When available, these rooms will be offered for rent for private functions and events.

7. *Swimming Pool and Summer Programs*
   a. Swimming Instruction. Swimming classes will be offered in the summer months to youth of varying skill levels. Competent and qualified instructors will provide the instruction.

   b. Lap Swimming. During certain months, specified times of the day will be reserved for lap swimming for those who wish to use the pool facilities for exercise.

   c. Open Swimming/Life Guarding. During summer months, specified times will be devoted to open swimming. During these times, lifeguards will be on duty to ensure that safety rules are followed.

   d. Competitive Swimming. The Club is considering a competitive swimming alliance with other local clubs to encourage participation in local competitive swimming.

Requirement 5: The Proposal Satisfies Those Objectives and Policies of the Tualatin Community Plan That Are Applicable to the Proposed Use.

The following applicable planning objectives were selected from the Tualatin Development Code. Below each code section, we have shown how the proposed use furthers the City's objectives.

Section 2.020 Purpose.

> ***(1) The general purpose of this Plan is to guide the physical development of the City so as to preserve the natural beauty of the area while accommodating economic growth. Specifically, the Plan is intended to define locations for both private and public land uses and to arrange these uses in a manner that reduces conflicts and provides convenient movement between individual land uses. The Plan is also intended to provide for diverse living and working environments of the highest quality.***

The approximately 15.7 acres of Tax Lot 900 (the subject parcel) have remained undeveloped despite its proximity to both residential development and commercial amenities within Tualatin. After accounting for the wetlands, open space, buffer areas, and utility easements, the buildable area is approximately 5 acres. A previous land use

application proposed a handful of homes that would be located above the 100-year flood plain line, but that approach appears economically infeasible and was eventually dropped.

We see these environmental constraints as environmental opportunities. The 10 acres that are essentially unbuildable create a beautiful, natural preserve, and if opened up to public access, would act as a significant recreational resource for the entire city. It would help extend the utility that Browns Ferry Park offers to both wildlife and the users of the park, as well as provide a physical buffer between the residential uses to the east and the commercial and medical district along SW 65th Avenue.

By approving the conditional use, the remaining buildable acreage of the subject parcel can be utilized as a high-quality, family-oriented private athletic and recreation facility. The development of the five acres alone would create more economic stimulus than the entire 15 acres could under residential use, even if the wetlands didn't exist.

Thus, this conditional use permit would act to "preserve the natural beauty of the area" – through potential transfer of approximately 10 acres to the City as park land – while "accommodating economic growth" – through the development of a needed recreational amenity.

Section 4.050 General Growth Objectives.

> ***The following are general objectives used as a guide to formulate the Plan. The objectives are positive statements to describe the Plan's intent to:***
>
> ***(4) Provide a plan that will create an environment for the orderly and efficient transition from rural to urban land uses.***

In reviewing the current Plan Map, it is apparent that subject parcel is sandwiched between the commercial development along SW 65th Avenue to the west, the high density residential uses to the northwest, medical uses to the south and southwest, and low density residential uses to the east. While the property north of Nyberg Lane is currently zoned for medium-high residential density, in fact it is now a city park and is likely never to be developed. To assure this character, the City could choose to downzone the Brown's Ferry Park land to "green space". The proposed development includes a "neighborhood-sized" fitness facility. Many of the peak hour users of the fitness portion of the facility will be drawn from the neighborhood commuters and the nearby employment centers. The tennis courts themselves will draw from a larger area, but the number of tennis players is constrained by the number of courts. Thus, the facility as a whole is relatively low impact as to traffic and resource use. As one drives west along Nyberg Lane, one would move from the single-family neighborhoods to a low-intensity recreational area, followed by the more intense residential and commercial

developments closer to and along SW 65th Avenue. This is the epitome of an "orderly transition."

(6) Arrange the various land uses so as to minimize land use conflicts and maximize the use of public facilities as growth occurs.

As a permitted conditional use, a private athletic club is not in conflict with the underlying zoning. And, as described above, the facility is complimentary to the existing neighborhoods as well as the current and future medical center. Transportation, power, water and wastewater infrastructure is already in place.

The proposed facility fits well with the residential uses to the east, and is compatible with the park land north and west (proposed) of the development. The features that mitigate the impact of the proposed building on the neighboring properties were explained in more detail above. To the south, it is highly likely that the hospital will develop the vacant ground, and the proposed development would act as an attractive screen or buffer between that development and Nyberg Lane. Additionally, much of the membership of the facility will be composed of local employees of the medical center and surrounding office complexes. This compares favorably to the alternative of a small residential development on the subject property, which would back up to the expanding medical campus. Thus, the proposed facility minimizes current and future land use conflicts.

(9) Prepare a plan providing a variety of living and working environments.

The proposed facility takes advantage of the flexibility built into the RL zone through the permitted conditional uses. The project's focus on high quality indoor tennis space adds an amenity to the neighborhood and the city for which pent up demand currently exists. The adjunct fitness and outdoor recreation areas, in particular the pool, will increase the opportunities for families and friends to enjoy the neighborhood during the summer, as it is easy to see the aquatics recreation center and pool becoming a focus of summer activities for many east-side city residents.

(10) Encourage the highest quality physical design for future development.

This project, as with all major projects in Tualatin, will undergo a thorough Architectural Review process. The market we intend to serve will demand a high-quality, well-designed physical structure. As evidenced by even the preliminary drawings, the development will incorporate features to minimize its impact on both the existing residences to the east and the operation of the floodplain and wetlands.

(12) Adopt measures protecting life and property from natural hazards such as flooding, high groundwater, weak foundation soils and steep slopes.

Most of the subject parcel is located within the 100-year floodplain of Nyberg Creek and the Tualatin River. Under current zoning, the single-family residential structures would need to be built such that all living spaces are at least one foot above flood elevation. The costs of doing so in the floodplain are high, and because the ground quickly rises at the SE corner, substantial foundations are required even on the portion outside the floodplain. Again, the low density zoning precludes development because of the costs associated with the topography.

Utilizing the conditional use process, we can create a private club use that can simply cease operations as needed during flooding events. From our discussions with the neighborhood residents, and follow up research, it is apparent that Nyberg Lane occasionally temporarily floods even during relatively minor storm events. Some of this may be due to downstream restrictions or choke points caused by undersized drainage facilities or perhaps maintenance issues. To the extent our wetlands mitigation work uncovers problem areas, they can be improved to function as designed and help relieve the problem for the benefit of the entire community.

As to major flood events, the tennis facility itself will be constructed as a wet, flood proof structure. Rather than building it above the floodplain, it will be built within the floodplain, but with materials and techniques that won't be damaged by flood waters. As the water comes up, the facility will be allowed to flood, and when the waters recede, the facility will be hosed down, cleaned, and reopened for play. By utilizing only hard and non-absorbent surfaces below flood level, as well as keeping all electrical, mechanical, and life safety systems above flood level, the facility will be easily returned to service.

The adjacent fitness and clubhouse building, with its higher level of interior finish, will be constructed above the floodplain and remain out of harm's way. In addition, to the extent possible, finishes and features that are less susceptible to water damage will be used on the ground floor, to reduce the potential damage from an extreme flood event.

The entire project will include a balanced cut and fill within the floodplain. Since the project entails a cut in the west where the wetlands will be restored, the depth of floodwaters to the east of that cut may be reduced during the more numerous minor events. This may help alleviate some of the flooding problems on Nyberg Lane. In any event, because of the required balance between cut and fill, the project will not increase the severity of flooding or damage caused by flooding either upstream or downstream. In addition, the areas of fill are not within the floodway, so flood waters will not be impeded.

(15) Arrange the various land uses in a manner that is energy efficient.

Because the fitness facility is sized as a "neighborhood" facility rather than a regional fitness center, most of the fitness users will be drawn from the immediate neighborhood and the surrounding employment centers. Thus, the facility will be suitable for walk-in or ride-in patrons, as well as automobile traffic from existing commuters. This helps reduce the amount of vehicle trips generated by the facility, and is a direct result of the facility's geographic location.

In addition, this project is located within the existing network of sewer and water pipelines, thereby avoiding additional operational or construction costs associated with development at the edges of the City.

(16) Encourage energy conservation by arranging land uses in a manner compatible with public transportation objectives.

An existing bus line (Route 76) serves the Meridian Park campus. See Tab 11 for the route. The closest stop, near the entrance to the Meridian Park Senior Care facility, is a 2000 foot walk (or 1/3 mile) from the proposed development, assuming the pedestrian utilizes paths within the new park land.

The Park & Ride at 72nd and Boones Ferry Road is approximately 2.1 miles away. The Park & Ride at Martinazzi and Mohawk is 1.75 miles away (Tab 11).

(22) Address Metro's Urban Growth Management Functional Plan, Title 13, Nature in Neighborhoods, through the conservation, protection and restoration of fish and wildlife habitat, including Metro's Regionally Significant Fish and Wildlife Habitat, through the Tualatin Basin Natural Resource Coordinating Committee and the Tualatin Basin Program.

This project provides an opportunity for the City to approximately double the size of Brown's Ferry Park, as well as enhance the riparian zone along Nyberg Creek. This would create a nearly continuous tract of protected, public wetlands and stream corridor from the Tualatin River to I-5 along Nyberg Creek.

Section 6.030 General Objectives.

While the underlying zoning is "residential," this conditional use application pertains to a commercial use. Therefore, the proposed

development should compare favorably to the objectives and goals of the commercial elements of the Plan. The following are general objectives used to guide the commercial development. They describe the Plan's intent to:

(1) Encourage commercial development.

As described above, the proposed development presents an opportunity to bring a high quality, somewhat unique, and needed facility to the City of Tualatin. Based on the long waiting lists for memberships at other clubs, the scarcity of court times, and the somewhat suspect condition of facilities that still remain fully booked, we are confident that the Metro region needs a new indoor tennis facility. As a high-quality venue, the facility will become the home of local and regional tournaments, and the players and spectators in these events will most likely stay, eat, and shop locally. Thus, the facility will act as a catalyst for economic growth within the existing business community, and not as a competitor.

(2) Provide increased employment opportunities.

While a private tennis and fitness club is not a large employer, it does present a sizable economic footprint. The facility will provide full time jobs for up to 40 employees, and part-time and seasonal employment for up to 20 more. By partnering with the local schools, we intend to provide employment and internship opportunities to high school and college students.

(4) Locate and design commercial areas to minimize traffic congestion and maximize access.

Tennis courts are "inefficient" uses of space, to be sure. A court encompasses roughly 120' x 60', and a maximum of four people can use one at a time. To be a successful club, enough courts must be available to ensure adequate court time for the membership, and even more importantly, enough courts must be available to support league play and tournaments. From this, one can easily see how five acres becomes a "minimum" size for a viable facility site, and a sizable piece of property is required. It is also easy to see why the traffic impact from such a large building is so slight, since the number of concurrent users is quite limited.

However, that same inefficiency means that the revenue generation per square foot of a tennis facility is much less than in commercial shopping centers or office complexes. Thus, most commercially-zoned properties are simply too valuable to allow a tennis club pencil out, particularly as an infill project. Thus, the subject parcel is somewhat unique, in that the obstacles to development (floodplains, wetlands, and sewer easement, to name three) make this proposed use especially suitable.

As described in the traffic study, the facility's impact on local traffic and intersection operation is negligible, even out to the 20 year horizon when the Meridian Park Hospital expansion occurs. Because it is a comparatively low-intensity private club use, siting the club on the subject parcel complies with this objective.

> ***(5) Continue to utilize specific and enforceable architectural and landscape design standards for commercial development.***

The facility will be designed and permitted through the City's architectural review process. Additionally, as a private club, the facility will be designed to appeal to current and potential members, and certainly the exterior elevations and landscaping will be an important component of that appeal.

> ***(6) Encourage developers to consider solar access when designing commercial development projects.***

The tallest components of the facility are located 195 feet from the east property line. The facility will not block the neighboring homes' solar access except near sundown. No neighbors are located to the north or west of the facility.

Additionally, the facility itself will be designed to accommodate solar panels and solar hot water heating. These features may be included in the initial construction, or may be added in the future as the unit cost of PV panels drops and the economics of on-site power generation become favorable.

> ***(8) Provide for the continued development of major medical services facilities in the City of Tualatin, especially at the Meridian Park Hospital site. The Medical Center Planning District shall be applied only to a property, or a group of contiguous properties, of no less than 25 acres and shall have frontage on an arterial as designated in Chapter 11, Tualatin Community Plan.***

We include this objective only to point out that a high-quality, low-intensity quasi-commercial use, such as the proposed private club, compliments the future growth of Meridian Park as it develops the property directly south of the subject parcel.

Section 11.610 Transportation Goals and Objectives

> ***(1) Established at the outset of the TSP planning process, the transportation goals and objectives provide guidance and direction for the development of the City of Tualatin's transportation system over the next twenty years. A total of eleven goals have been developed in the categories of mobility, livability, coordination, public transportation,***

pedestrian and bicycle facilities, accessibility, environment, system preservation, capacity, transportation funding, and safety. Under each of these goals are sets of objectives that help define how each specific goal will be accomplished.

(2) Goal 1: Mobility

- ***Provide a transportation system that serves the travel needs of Tualatin residents, businesses, and visitors.***
- ***Objectives:***

  (a) Provide an interconnected system of streets, pedestrian and bicycle facilities, and other forms of transportation which will link the community; minimize travel distances and vehicle miles traveled; and safely, efficiently, and economically move motor vehicles, pedestrians, bicyclists, transit vehicles, trucks, and trains to and through the area when it is fully urbanized.

The proposed development presents a comparatively light-intensity quasi-commercial use located on one of the few undeveloped parcels east of I-5. It is located close to the main thoroughfares of SW 65th and Nyberg, and a good portion of the traffic to and from the facility would be vehicles already traveling the same route. The fitness facility presents a "neighborhood-sized" amenity targeted at local residents and nearby employees, thus minimizing traffic generation. The tennis courts will be a regional attraction, but the traffic generated is limited by the number of players that can be involved at any one time. Thus, the proposed development does not create an undue burden on the existing infrastructure.

Additionally, the conveyance of parkland to the City opens up the possibility of improving the bicycle and pedestrian trail connectivity between the Tualatin River and the areas near Meridian Park Hospital.

> ***(e) For Plan Map and Text Amendments adopt a Level of Service standard F for the p.m. peak hour and E for the one-half hour before and after the p.m. peak hour for the Town Center 2040 Design Type (TDC Map 9-4), and E/E for the rest of the 2040 Design Types. For development applications, including, but not limited to subdivisions and architectural reviews, a LOS of at least D and E are encouraged for signalized and unsignalized intersections, respectively.***

See the Traffic Study for compliance with this objective.

(3) Goal 2: Livability

- ***Provide a transportation system that balances user needs with the community's desire to remain a pleasant, economically vital city.***

- ***Objectives:***

  (a) Provide a transportation system that is adequate to handle the truck, transit, and automobile traffic in such a way to encourage industrial development, the preservation of existing residential neighborhoods, the minimization of industrial traffic and congestion in the Town Center area, and the successful implementation of the City's economic development goals.

See Traffic Study for compliance with this objective.

(b) Minimize the adverse social, economic and environmental impacts created by the transportation system, including balancing the need for street connectivity with the need to minimize neighborhood cut-through traffic.

See Traffic Study for compliance with this objective. We have included studies of the neighborhood intersections as part of the report.

(d) Incorporate a landscape element into the development plans of arterials, collectors and local streets.

Street trees and appropriate wetlands landscape may be integrated into expansion of Brown's Ferry Park.

(f) Ensure safe and efficient access to the Tualatin Town Center.

This project promotes connectivity to the Tualatin Greenway and ultimate connection to the Tualatin Town Center.

(4) Goal 3: Coordination

- ***Maintain a transportation system plan that is consistent with the goals and objectives of the community, the region, and the state.***

- ***Objectives:***

  (a) Provide a City transportation system that is consistent with other elements and objectives of the Tualatin Community Plan.

See Traffic Study for compliance with this objective.

(b) Coordinate planning of the City transportation system with the Regional Transportation Plan prepared by the Metro, working toward a plan that is consistent with the RTP.

See Traffic Study for compliance with this objective.

(c) Work with Metro, ODOT, Tri-Met, Washington County, Clackamas County, and other surrounding organizations/jurisdictions to resolve regional and statewide transportation issues that impact Tualatin, including developing one or more arterial routes connecting I-5 and Highway 99W south of Highway 217, ensuring adequate capacity on the freeway system, and improving access to and the capacity of I-5 interchanges between Highway 217 and the North Wilsonville Interchange.

See Traffic Study for compliance with this objective.

(5) Goal 4: Public Transportation

- ***Improve public transportation service both within Tualatin and to the surrounding area, to reduce reliance on the private automobile.***

The proposed development does not impact nor require additional public transportation service. However, to the extent the development and associated pedestrian path improvements allow greater connectivity between existing public transit stations and the residential neighborhood, the proposed development is consistent with this goal.

The applicant is prepared to work with Legacy Health Systems to encourage connectivity between the Meridian Park Hospital site and this site.

(6) Goal 5: Pedestrian and Bicycle Facilities

- ***Provide for an interconnected system of pedestrian and bicycle facilities throughout Tualatin to serve short-distance and recreational trips.***
- ***Objectives:***

(a) Provide sidewalks on both sides of all fully developed streets within the City, except where it would be unsafe to do so.

A sidewalk along the south side of Nyberg Lane already exists.

(b) Develop safe and convenient pedestrian and bicycle systems that link all land uses, provide connections to transit facilities, and provide access to publicly-owned land intended for general public use.

A pedestrian and bicycle system connecting to Legacy Meridian Park Hospital and to an expanded Brown's Ferry Park is an integral future potential part of this opportunity.

(c) Maintain and update official map showing existing and future street rights-of-way with bicycle lanes and bikeways.

Not applicable.

(d) Develop a continuous multi-use pathway along the Tualatin River, and provide opportunities for pedestrian and bicycle movement across the river.

This project could promote greater connectivity with the pathway along the Tualatin River.

(e) Adopt development standards that support pedestrian and bicycle access to commercial, industrial, and institutional development. These include, but are not limited to direct pathway connections, bicycle racks and lockers, and shower facilities.

This project will enhance such access and improve pathway connections.

(f) Allow curb extensions and pedestrian crossing refuges where appropriate.

A pedestrian crossing exists to connect the existing Brown's Ferry Park along with the potential expansion to the south.

(8) Goal 7: Environment

- ***Provide a transportation system that protects the environment of the community and region.***
- ***Objectives:***

(b) Cooperate with the Department of Environmental Quality, Clean Water Services, and Metro to meet applicable air and water quality and traffic noise standards.

While the proposed development does not include specific transportation infrastructure improvements, we have incorporated design elements to reduce noise impacts of vehicular traffic to the neighbors to the east. Specifically, the service road on the western side of the building eliminates truck noise in the parking lot. Additionally, the parking area will be arranged such that employee parking will be located along the east property line, thereby minimizing the amount of noise from entering and leaving patrons.

> ***(c) Encourage use of the existing transportation facilities by increasing use of alternative modes of transportation and encourage development that decreases reliance on the automobile.***

The proximity to the Tualatin Greenway and its associated bicycle and walking trail network will encourage club patrons to use it, not only for recreation but for travel to and from the club if possible.

> ***(d) Balance transportation improvements with the need to protect natural resources.***

Protection of natural resources is a pre-eminent element of this project.

(9) Goal 8: System Preservation

- ***Ensure that development does not preclude the construction of identified future transportation improvements, and ensure that development mitigates the transportation impacts it generates.***

- ***Objectives:***

> ***(a) Preserve adequate right-of-way for a new freeway interchange on Interstate 5 between Interstate 205 and north Wilsonville for an expressway connection between this interchange and Highway 99W.***

This project has no impact on the aforementioned right-of-way.

> ***(b) Preserve adequate right-of-way for an arterial street connecting Tualatin-Sherwood Road and Highway 99W in the western portion of the industrial area at the general 124th Avenue alignment.***

This project has no impact on the afore-mentioned connection.

> ***(c) Require developers to aid in the development of the transportation system by dedicating or reserving needed rights-***

of-way, and by constructing half or full street improvements needed to serve new development and to mitigate the impacts of new development.

Nyberg Lane currently offers more than adequate capacity of this project. See Traffic Study.

(d) Require developers to mitigate the impacts of development on the transportation system by constructing off-street pedestrian, bicycle and transit facilities.

The expansion of Brown's Ferry Park offers substantial mitigation via the construction of off-street paths.

(e) Establish local street plans for contiguous vacant and redevelopable areas of five acres or more planned or zoned for development that identify local street access points to the collector and arterial street system, and local street connections to adjacent development.

The project will establish connectivity with Legacy Meridian Park Hospital.

(10) Goal 9: Capacity

- ***Provide a transportation system that has sufficient capacity to serve user needs.***

- ***Objectives:***

(a) Establish an arterial street system which will attract and effectively accommodate all through-trips to relieve residential collectors and local streets from heavy and hazardous traffic burdens.

See Traffic Study for compliance with this objective.

(12) Goal 11: Safety

- ***Provide a transportation system that maintains adequate levels of safety for all users.***

- ***Objectives***

(a) Undertake, as needed, special traffic studies in problem areas, especially around schools, to determine appropriate traffic

controls to effectively and safely manage automobile and pedestrian traffic.

See Traffic Study for compliance with this objective.

(b) Work to improve the safety of rail, bicycle, and pedestrian routes and crossings.

Additional signage at the Brown's Ferry Park pedestrian crossing would be part of the expansion of Brown's Ferry Park.

Section 15.020 Objectives.

The following are the objectives of the Park and Recreation Plan. These objectives are to:

(2) Provide a high-quality park and recreation system to offset the environmental impact of large areas of commercial and industrial development.

The proposed conditional use could result in approximately 2/3's of the subject parcel to be transferred to the City as a park. This will increase the size of Browns Ferry Park by 35%, and provide a link for pedestrians and bicyclists between the Tualatin Greenway and the area south of Nyberg Lane.

As such, it will help form a buffer between the medical center development and the Tualatin Greenway, and preserve a high-quality wetlands area for public enjoyment.

Without the ability to develop the remaining 5 acres of the subject parcel, this plan is not economically feasible, given the cost of development.

Additionally, while not a public facility, the club does offer recreational opportunities that are currently lacking in the City. While the tennis facility will include members from around the Metro area, the fitness and summer memberships will primarily be local residents or nearby employees. The private club offers the next best thing to a public recreational facility, and through youth and city leagues, playing tennis is available to many at reasonable cost.

(3) Create a park and recreation system that provides diverse recreation opportunity.

The western portion of the subject property contains a contiguous and diverse ecosystem within the City. Nyberg Creek traverses this portion of the property providing riparian and wetland habitat, and there are mature stands of trees located along the southern property line as well. The wetlands are somewhat degraded, however, and enhancement of the wetlands and buffer zones would improve the functionality of the natural system.

Preservation of this area as a City Park would allow the City to expand the system of walking and bicycling trails along the Tualatin and within Browns Ferry Park. The park would also connect the medical center property to the Tualatin, and would open up the possibility of a shared private/public trail system that would provide north-south connectivity between Borland Road and the Tualatin River.

(6) Preserve as greenways, specific City creeks and drainage swales to provide sufficient area for stormwater runoff, enhance water quality, preserve fish and wildlife habitat and provide, where appropriate, public pedestrian and bicycle access.

See item (3) above. While the property's current zoning overlays as well as the laws involving delineated wetlands essentially "preserve" the current ecosystem, the ground remains private property and is not accessible to the City's residents. Approving this conditional use and acquiring the western 2/3 of this property will allow the western portion of the tax lot to become public land. In addition, as private property, there is no mechanism to enhance the ecosystem, short of the owner's desire to undertake such measures on his or her behalf.

(7) Preserve greenways, as much as possible, in their natural state.

The proposed development includes a mitigation component, wherein the extreme eastern low-grade wetlands area will be filled, and a portion of the central upland finger will be cut to restore it to its original topography and wetland status. This project will improve the functionality of the wetlands by eliminating the upland finger, thereby creating a larger, central core of contiguous wetland area. The greenway along Nyberg Creek will be preserved in its entirety. In the area to be preserved as park land, the City of Tualatin will ensure a collaborative partnership among Stafford Hills, Meridian Park Hospital, the Wetlands Conservancy and the Audubon Society of Portland for the enhancement and protection of greenways.

(9) Link the park and recreation system with a system of greenways and bicycle/pedestrian facilities.

See item (3) above.

(11) Preserve and enhance native vegetation in riparian and other natural areas for the purpose of providing favorable habitat for fish and wildlife. Encourage developers to preserve areas of natural vegetation, wherever possible, to provide habitat for wildlife.

See item (7) above.

(12) Encourage developers to utilize residential density transfers, landscaping credits, system development charge credits, reduction of minimum setback requirements, and other incentives for greenway, bikeway and pedestrian path purposes.

See item (3) above. Again, we see the environmental constraints associated with development of the subject parcel as an opportunity to provide a high quality, recreational amenity to the local residents, while providing a publicly accessible natural preserve for the community at large. Residents of the Fox Hill subdivision will continue to have access to Browns Ferry Park and increased access to Nyberg Creek.

Zupancic Group
Real Estate Counsel and Developers

March 26, 2009

Doug Rux
Community Development Director
City of Tualatin
18880 SW Martinazzi Ave.
Tualatin, OR 97062

HAND DELIVERED

Re: Project: Stafford Hills Racquet & Fitness Club
Application: Conditional Use Permit
Scheduled City Council Meeting, April 27, 2009

Dear Doug:

As I have shared with you before, we have been inundated with supportive comments about Stafford Hills. I have copied comments we have received on our temporary website and attach them to be part of the CUP and ARB records.

Perhaps the City Council would also like to see these comments from citizens.

Again, thanks for all the cooperation from you and your staff.

Cordially,
Zupancic Group

James D. Zupancic, Esq., CRE
President
Enclosure

Mailing Address ■ 5335 Meadows Rd., Ste 161 ■ Lake Oswego, OR 97035 ■ Phone 503.968.8200 ■ Fax 503.968.8017 ■ www.ZupGroup.com

STAFFORD HILLS RACQUET & FITNESS CLUB
GUEST BOOK POSTINGS

James Gillespie
Monday, March 16, 2009

I would love to know about membership. The club sould like a great idea. I used to belong to West Hills Racket and FItness. It was a long trip

Cate Minor
Monday, March 9, 2009

This is great news for tennis players from the Clackamas and Oregon City areas as well. I wish you the best in getting this project up and running. I look forward to becoming a member.

George Ruggles
Sunday, March 8, 2009

Very interested in your project. Hope you get approval.

Siamak Hajarizadeh
Friday, March 6, 2009

I am a tennis professional at Lake Oswego Tennis Center, and I have to be honest, I am really excited and happy for the state of tennis in our community if this facility does open up.

Thank you The Zupancic Group,

Betsy Robertson
Wednesday, March 4, 2009

Looking forward to another club in the area. It's nice to have choices!

Gilbert C
Wednesday, March 4, 2009

Thank you for considering a tennis facility that is family-friendly! That is hugely lacking in this area

Joyce Atkins
Sunday, March 1, 2009

IT IS A GREAT IDEA!! We need more courts in this area and a nice new club since there has not been a new tennis facility built in ~ 35 years and some of them are in need of much repair. Thanks.

Rich
Friday, February 27, 2009

I am very excited to see this proposal. I have written a letter of support to the City of Tualatin

STAFFORD HILLS RACQUET & FITNESS CLUB
GUEST BOOK POSTINGS

Jenny Peters
Friday, February 27, 2009

This sounds so exciting. We play tennis and have been looking for something that we can do as a family! There is such a limited source for indoor tennis and combining that with a fitness center, pool...so fun.

Tim & Pat Brink
Thursday, February 26, 2009

This is very exciting and look forward to a new club.

Sue Easton
Thursday, February 26, 2009

Look forward to the opening of your club. Keep me posted on membership.

Diana & Bernie Miller
Wednesday, February 25, 2009

We are very excited about the prospect of a new tennis club serving this area. We hope you get approval!

Tammy Motsch
Wednesday, February 25, 2009

I'm currently a member of Mt. Park Raquet club, which I love. I am very excited about a new club.
I would love to belong to a club with a pool, depending on cost of membership.

Sherry Palmer & Bruce Johnson
Wednesday, February 25, 2009

We are very much interested in your club. Looking forward to hearing more about it.

Dana Wilson
Wednesday, February 25, 2009

Very happy to hear of your plans, please let me know when you are opening your membership. Good luck!

Kit & Stacey Kohler
Wednesday, February 25, 2009

As we wrote back in December, we remain excited about the new facility and remain hopeful the membership dues will be reasonable for the Stafford Hills community. As a family of 6, this is a crucial element for us.

Thanks for the oppty to communicate, and we look forward to learning more.

Mike Stone
Wednesday, February 25, 2009

Great news! As director of tennis for Portland Tennis Center & St. Johns Racquet Center, I can vouch for the fact that additional tennis facilities are desperately needed to meet the demand. Congratulations

STAFFORD HILLS RACQUET & FITNESS CLUB
GUEST BOOK POSTINGS

Forrest Hall
10978 SW Oneida StTualatin, Oregon 97062
Tuesday, February 24, 2009

I have been a member of Irvington Tennis Club since 1975 and I am looking forward to playing at club where I don't have to drive 20 miles to play tennis. I would also be interested in serving on a planning committee for the new club if that option is open, as I have played in the USTA as well as being a captain for 20 years. In 2006 I was selected as the PNW Men's Captain of the Year...Looking forward to some fun tennis at Stafford Hills.

Sara Meier
Tuesday, February 24, 2009

Looking forward to the new Center.

dave polito
Tuesday, February 24, 2009

Notify me as soon as memerships are availabe...this new club is sorely needed

Greg McCarty
Tuesday, February 24, 2009

Sounds like a very nice facility. Does anyone have any idea of what memberships will cost? I don't see how it could be any less than Club Sport, but let's hope.

Colleen Nicholson
Sunday, February 22, 2009

My tennis buddies and I have been waiting a long time for this. Your tennis membership will fill up fast. Keep me informed.

Tracy Director
Friday, February 20, 2009

I can't wait....

Kate Howells
Friday, February 20, 2009

This is so exciting! We have really needed a recreational complex like this for some time, and speaking as an avid tennis player, I'm so excited to have more courts! Please let me know how and when I can purchase a membership!
Thank you!

Dee Mathre
Friday, February 20, 2009

Can't wait. I will one of the first to join.

Sally Douglas
Sunday, February 15, 2009

That sounds awesome! Please send me information about joining. My whole family loves tennis, swimming and working out.

STAFFORD HILLS RACQUET & FITNESS CLUB
GUEST BOOK POSTINGS

Victoria Soderstrom
Saturday, February 14, 2009

Great idea!

Eloise Andrews
Friday, February 13, 2009

We are excited for the opportunity of joining
Stafford Hills Racquet and Fitness Club.
Please keep us up to date on membership
sign ups.

Colleen West
Friday, February 6, 2009

I am interested in membership in you new Racquet and Fitness Clu. Please send me information as it becomes available.

Thanks,

Steve Frelly
Tuesday, February 3, 2009

I am a current member of another club but am very interested in most likely joining your club when memberships are available. Please keep me informed as I know a few more people who would join as well. Thank you.

Adam Hutchinson
Thursday, January 22, 2009

Great to see a new Club in the area! I'd love to be kept up to speed on the progress of the Club. I hope you'll be sending out periodic e-mails!

Tom Meier
Tuesday, January 13, 2009

This is really great news.

Gunnar and Marjie Brinck
Sunday, January 11, 2009

Let us know when you are looking for mrmbers. We are seeking a facility such as you are proposing.

Thanks
The Brinck's

Dick Messenger
Sunday, January 11, 2009

I look forward to becoming a charter member of Stafford Hills Racquet and Fitness Club!

STAFFORD HILLS RACQUET & FITNESS CLUB
GUEST BOOK POSTINGS

Mortensen Family
Sunday, January 11, 2009

YEAH! We have been members of Club Sport for 10 years and have had to pay seperate dues for MPRC for my husbandm an avid, 4.0 tennis player. PLEASE keep us posted on the plans and let us know what ammenities you will have. I hope you will have an outdoor pool, upscale ladies' lounge, great classes, and lots fo the things that Club Sport has. We would definitely consider changing our membership if the club is as nice and accomodating. Also, the dues are $175.mnth for a full family, we would expect that to be comparable, yes?

Thanks -

The Mortensen Family - Tigard

Darr Fedderson
Thursday, January 8, 2009

I've been a member at Mt Park Racquet Club since 1990 and the facility is falling apart (roof leaks, etc). The management team is only interested in themselves and making money from lesson groups. This is great news and I suspect MPRC will lose at least 25% of their membership to Stafford Hills. I can help grow your membership and help make Stafford Hills the best tennis club in the NW.

John Cava
Tuesday, December 9, 2008

I can't wait for this new club!!

Audrey MacKenzie
Friday, December 5, 2008

Way to go on the Racquet Club!! I've been a member of Mt. Park, but on inactive status and have wanted to rejoin, but have not because of inconvience of its location to me. Great idea! Will look forward to playing tennis there.

Cindy
Friday, December 5, 2008

Wow!! Fantastic news. Looking forward to joining.

Brian Stephenson
Wednesday, December 3, 2008

What a wonderful decision that you all have made.
Thank you so much for changing this project from what we considered a totaly negative project into a completely positive one.
My wife and I support this proposed project 100%.
Thanks again, Brian Stephenson

Mike and Debbie Reiss
Wednesday, December 3, 2008

This is such EXCITING news. We have been waiting for this for 15 years. We are very active members at Mt. Park and like hundreds of others are desperate for a new facility. Please let us know how we can be involved and help in any way with this project. When can we sign up !!

STAFFORD HILLS RACQUET & FITNESS CLUB
GUEST BOOK POSTINGS

debbie wightman
Tuesday, December 2, 2008

Hi from a tennis enthusiastic couple in Tualatin. I volunteer for the park dept. in Tualatin these past 3 years and I am so excited to hear out your plans to build a tennis club. There are a lot of players in LO also that have wanted to help build a location to have some sectional/national competitions. Is that something you will be building for or will is be more like a West Hills? My husband and I in the past were members at Mt. Park and West Hills, and now at Charbonneau due to the ease of getting court time and cost is so affordable. We both used to teach tennis in our 20's and love the game. Please put me on your email list to keep updated on what is planned or if I can help. Annie Miller at the LO Tennis Courts wanted to help get more indoor and outdoor tennis courts for competitions built in this area in case you want a great person to chat with.
Debbie Wightman
home office 503 692-7080

Mark & Jan Green
Tuesday, December 2, 2008

Please put us on the mailing list for information about the Stafford Hills Racquest and Fitness Club as it becomes available!

Kit and Stacey Kohler
Tuesday, December 2, 2008

We are anxious to learn more.

My wife and I have always felt this community needed an indoor recreational facility of some sort.

We are excited about the oppty to join a place where our family can go and enjoy working out, swimming, general activities, meet other familiies, etc.

Hopefully, the facility would be reasonably priced for families (versus places like Club Sport).

Height Requirements

In RL zones, the structure height is limited.

Section 40.100 Structure Height.

Except as otherwise provided, the maximum structure height is 35 feet.

The Tennis Building height measures 35 ft. to the parapet as shown on the attached Exhibit "A". Therefore, the Tennis Building height is in compliance with Section 40.100 and meets these requirements.

Likewise, the Activity Building will be less than 35 ft. in height. Therefore, the Activity Building height meets the requirements of 40.100.

Section 40.030.

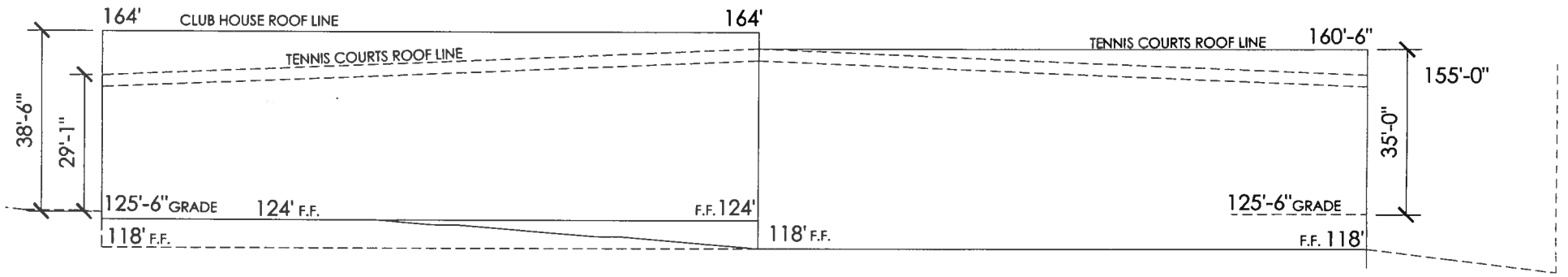
The following uses and their accessory uses are permitted as conditional uses when authorized in accordance with TDC Chapter 32:

(4) Other uses as specified below:

(n) increased building height to a maximum of 75 feet, if all yards adjoining said building are not less than a distance equal to 1 ½ times the height of the building.

The Clubhouse Building is planned for a height of 38 ½ feet. It is structurally independent from the Tennis Building. As permitted under this conditional use, the "yards" adjoining the building must be equal to 1 ½ times this height, or 57 feet 8 inches. Because the Clubhouse is positioned so central to the project, it is located 195 feet from the eastern boundary and 130 feet from the southern boundary. Therefore, the proposed "yards" or setbacks of the Clubhouse Building well exceed the setback distance required under this provision. Therefore, the proposal meets the requirements of Section 40.030 (4) (n).

Exhibit "A"

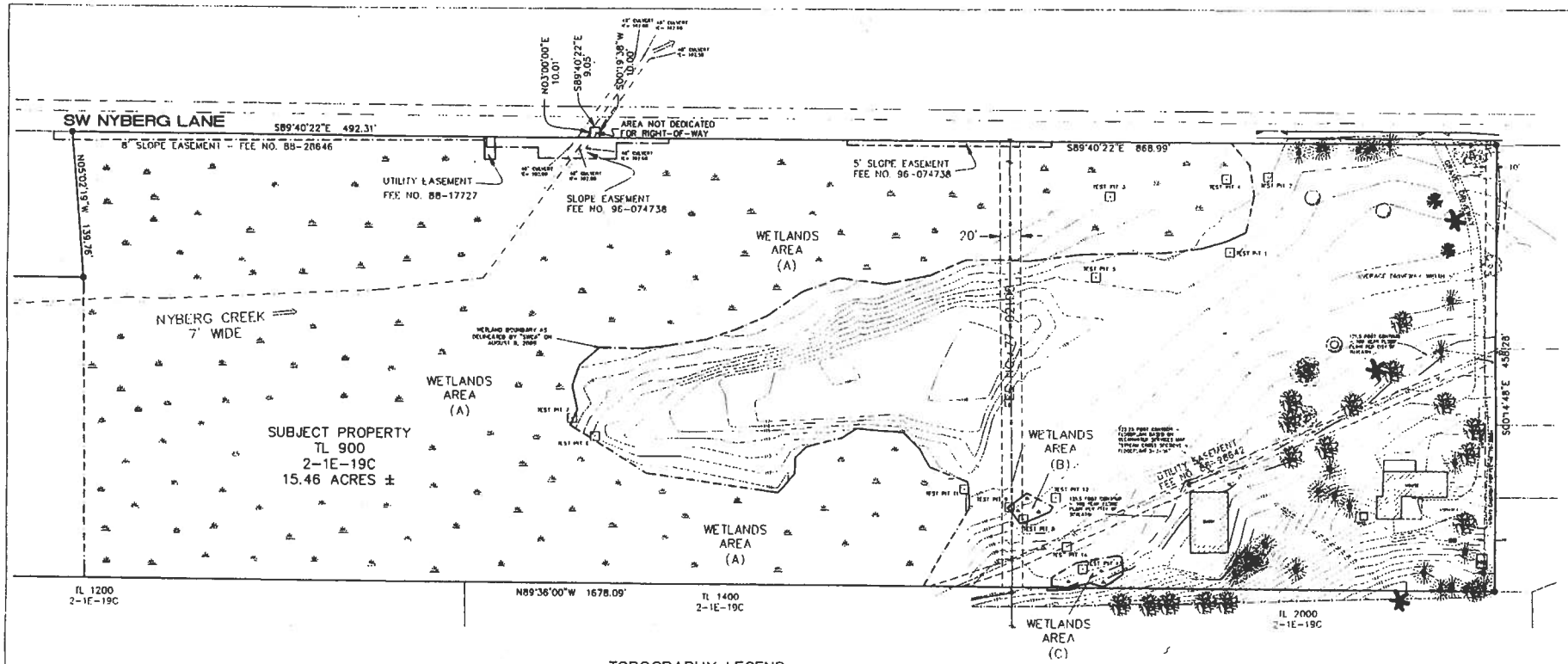

164'
CLUB HOUSE ROOF LINE
164'
TENNIS COURTS ROOF LINE
TENNIS COURTS ROOF LINE
160'-6"
155'-0"
38'-6"
29'-1"
35'-0"
125'-6" GRADE
124' F.F.
F.F. 124'
125'-6" GRADE
118' F.F.
118' F.F.
F.F. 118'

Potential Transfer of Parkland to City

This project presents the unique and timely opportunity for the transfer of the western approximately 10 acres to the City to substantially expand Brown's Ferry. The decision whether or not to pursue this opportunity rests with the City.

The Applicant proposes that it receive fair market value for the transferred land, in the form of SDC, TIF or other credits, and/or other commensurate consideration.

Metro "Nature in the Neighborhood" Grant Funds could be used to offset certain acquisition costs. Bond and Grant Funds and funds from the 2009 Federal Economic Stimulus Package could be used for improvements and enhancements of the expanded public area. The Wetlands Conservancy and the Audubon Society of Portland have expressed interest in collaborating toward the proper development of this area.



TOPOGRAPHY LEGEND:

- POWER POLE
- SANITARY SEWER MANHOLE
- WETLANDS TEST PIT
- WETLANDS BOUNDARY
- 100-YEAR FLOODPLAIN
- SANITARY SEWER LINE
- FENCELINE
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EASEMENT LINE
- CL ROW
- EDGE OF GRAVEL
- ### EXISTING CONTOUR
- BUILDING FACADE AT FOOTPRINT

GRAPHIC SCALE

0 50 100 200

(IN FEET)

1 inch = ft.

NOTE:

WETLANDS SHOWN AS DELINEATED BY "SWCA" ON AUGUST 8, 2008 AND SURVEYED BY "WESTLAKE CONSULTANTS" ON AUGUST 11, 2008, FROM WHICH APPROXIMATE AREAS WERE CALCULATED.

WETLANDS A: 336,265 SQ. FT.

WETLANDS B: 705 SQ. FT.

WETLANDS C: 1,396 SQ. FT.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

WESTLAKE CONSULTANTS INC
ENGINEERING • SURVEYING • PLANNING
PACIFIC CORPORATE CENTER
15115 S. SEQUOIA PARKWAY, SUITE 150
TUALATIN, OREGON 97224
PH (503) 684-0652
FAX (503) 624-0157

WETLAND SURVEY

FOR: ZUPANCIC GROUP

LOCATED IN THE SW 1/4 OF SECTION 19, T. 2 S., R. 1 E., W.M.
CITY OF TUALATIN, CLACKAMAS COUNTY OREGON

DATE	9-25-08
DRAWN BY	KAM
CHECKED BY	TGB
REVISIONS	
SHEET	1 OF 1
JOB NO.	2161-01

Attachment D
Section 8 – Wetlands Delineation
Map (reference only)

SWCA
ENVIRONMENTAL CONSULTANTS

Portland Office
434 NW Sixth Avenue, Suite 304
Portland, Oregon 97209
Tel: 503.224.0333 Fax 503.224.1851
www.swca.com

Date: October 27, 2008
To: Layne McWilliams, P.E. Esq., Zupancic Group
From: Stacey Reed, SWCA Environmental Consultants
Site: 5916 SW Nyberg Lane Wetland Delineation
Tax map/lot: 2 1E 19C/ 900; 15.46 acres
Re: Total Extent of Wetland Acreage

SWCA Environmental Consultants was contracted by the Zupancic Group to delineate wetlands on tax lot 900 of tax map 2 1E 19C located in Tualatin, Clackamas County, Oregon. Development is proposed in the eastern portion of the tax lot; therefore, we were instructed to focus our efforts on delineating the wetland / upland boundary in the eastern portion of the site. SWCA confirmed a minimum of 7.77 acres of wetlands (referred to as Wetlands A, B and C) exist in the eastern half of the site, as indicated in the 5916 SW Nyberg Lane Wetland Delineation report dated October 2008. Due to the topographic landscape and presence of a hydrophytic vegetation community, wetland conditions associated with Wetland A appear to extend throughout the western portion of the site. The 7.77 acres of delineated wetland stated in the wetland delineation report does not include the wetland area likely present in the westernmost portion of the site. The 7.77 acres confirmed as wetland includes the area depicted as wetland (shown by wetland hatch) on Figure 7; Appendix A of the wetland delineation report. The wetland acreage was calculated using AutoCad by Westlake Consultants.

In summary, the total amount of wetland present on the tax lot is greater than 7.77 acres. Further work is required to confirm that wetland conditions extend throughout the remainder of the western portion of the tax lot.

Please let me know if you would like us to conduct an additional site visit to delineate any potential upland that may exist in the western half of the site.

Sincerely,

Stacey Reed

Stacey Reed
Wetland Scientist

P:\14000\14723_5916_NybergLane\Wetland Acerage Memo_102708.doc

Transportation Impact Analysis

Stafford Hills Racquet & Fitness Club

Tualatin, Oregon

February 2009

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

Attachment D
Section 9 –Traffic Study

Transportation Impact Analysis

Stafford Hills Racquet & Fitness Club

Tualatin, Oregon

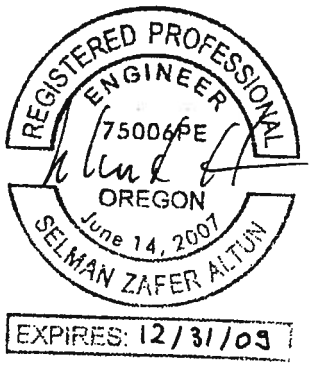
Prepared For:
The Zupancic Group
5335 Meadows Rd. Suite 161
Lake Oswego, OR 97035
(503) 968-8200

Prepared By:
Kittelson & Associates, Inc.
610 SW Alder Street, Suite 700
Portland, Oregon 97205
(503) 228-5230

Project Analyst: Chris Buckingham
Project Manager: Selman Altun, P.E.
Project Principal: Mark Vandehey, P.E.

Project No. 9700

February 2009



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Section 16 Appendix GYear 2011 Total Traffic Level-Of-Service Worksheets

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Section 1
Executive Summary

Executive Summary

The Zupancic Group is planning a new racquet and fitness club development in Tualatin, Oregon on a 15.7-acre site bordered by Nyberg Lane and Brown's Ferry Park to the north, single family residential uses to the east, SW 65th Avenue to the west, and Meridian Park Hospital to the south (see Figure 1). The site is currently vacant, except for a residential home with a barn located at the southeast corner. Most of the site is a designated wetland and within the 100-year floodplain. The developable portion (approximately 5.6 acres) is located in the eastern third of the site. The land is currently zoned as RL – Low Density Residential, which allows for private clubs as a conditional use.

The proposed development plan calls for 7 indoor and 3 outdoor tennis courts with removable cover, and a 16,000 square-foot clubhouse, which includes a 8,000 square-foot fitness center. The plan also shows some auxiliary features such as a kids club and a pool area. This analysis assumes the development would reach full occupancy in the year 2011.

This Transportation Impact Analysis was prepared in accordance with the standards set forth by the City of Tualatin and the Oregon Department of Transportation (ODOT). The study documents that the proposed Stafford Hills Racquet & Fitness Club project can be developed as anticipated while maintaining acceptable traffic operations and safety on the adjacent transportation network. A more complete summary of key findings is described below.

FINDINGS

Year 2008 Existing Conditions

- All of the study intersections operate at acceptable levels of service during the weekday a.m. and p.m. peak hours.
- A review of historical crash data did not reveal any crash patterns or safety deficiencies at any of the study intersections.

Year 2011 Background (without Stafford Hills) Traffic Conditions

- All of the study intersections are forecast to operate at acceptable levels of service during the weekday a.m. and p.m. peak hours.

Proposed Development Plan

- The proposed development is estimated to generate 1,010 daily net new trips; of these, 50 net new trips (35 inbound, 15 outbound) are anticipated during the weekday a.m. peak hour; and 100 net new trips (60 inbound, 40 outbound) are anticipated during the weekday p.m. peak hour.
- As proposed, the Stafford Hills development would provide a single full-access driveway onto Nyberg Lane (as shown in Figure 2). A service and emergency access will also be provided along the western edge of the property, which will also serve as a pedestrian path.

Year 2011 Total (With-Proposed Development) Traffic Conditions

- All of the study intersections and the access driveway are forecast to operate at acceptable levels of service during the weekday a.m. and p.m. peak hours.

Year 2028 Background (Without Proposed Development) Traffic Conditions

- All of the study intersections are forecast to operate at acceptable levels of service during the weekday a.m. and p.m. peak hours.

Year 2028 Total (With Proposed Development) Traffic Conditions

- All of the study intersections are forecast to operate at acceptable levels of service during the weekday a.m. and p.m. peak hours.

Neighborhood Traffic Impacts

- Average daily traffic on SW 57th Avenue is expected to increase by 3 to 5 percent (approximately 35 to 60 trips per day) due to the proposed development. This increase is within the day to day fluctuation in daily traffic volume on SW 57th Avenue. Accordingly, it is reasonable to conclude that the anticipated increase in traffic would be below a level that could be perceived by residents, and would not change the character of the street.
- Average daily traffic on SW 50th Avenue is expected to increase by about 8 percent (approximately 140 – 160 trips per day) due to the proposed development. This increase is also within the day to day fluctuation in daily traffic volume on SW 50th Avenue. Furthermore, SW 50th Avenue is a designated Collector street and therefore it is serving its intended purpose (to carry trips from the neighborhood to the City's arterial street system).

On-Site Circulation/Site-Access Operations

- The site's driveway will operate acceptably as proposed, with STOP control for movements out of the driveway, and with full access into and out of the driveway allowed.
- Adequate intersection sight distance is available at the site-access driveway.
- Adequate storage is available at the site-access driveway to accommodate the forecast 95th-percentile queues.

RECOMMENDATIONS

The following list provides a summary of the study's transportation-related recommendations for the Stafford Hills development.

- A full-access driveway should be provided onto Nyberg Lane as shown on the site plan (Figure 2).
- Shrubbery and landscaping near the internal intersections and site access point should be located and maintained to ensure adequate intersection sight distance is provided. Utilities and monument signs should also be appropriately located.

Additional details of the study methodology, findings, and recommendations are provided within this report.

Section 2
Introduction

Introduction

PROJECT DESCRIPTION

The Zupancic Group proposes to build a racquet and fitness club development in Tualatin, Oregon. The site is bordered by Nyberg Lane and Brown's Ferry Park to the north, single-family residential uses to the east, SW 65th Avenue to the west, and Meridian Park Hospital to the south. The 15.7-acre site is currently vacant, except for a residential home with a barn located at the southeast corner. Most of the site is designated as wetlands and is located within the 100-year floodplain. Through a permitted wetland fill and mitigation, the eastern third of the site, approximately 5.6 acres, becomes developable. The site is currently zoned as RL – Low Density Residential. A map of the site vicinity is located in Figure 1.

The proposed development plan calls for 7 indoor and 3 outdoor tennis courts with removable cover, and a 16,000 square-foot clubhouse, which includes a 8,000 square-foot fitness center. The plan also shows some auxiliary features such as a kids club and a pool area. This analysis assumes the development would reach full occupancy in the year 2011. The current zoning, RL – Low Density Residential, allows for private clubs as a conditional use.

Figure 2 illustrates the site plan.

SCOPE OF THE REPORT

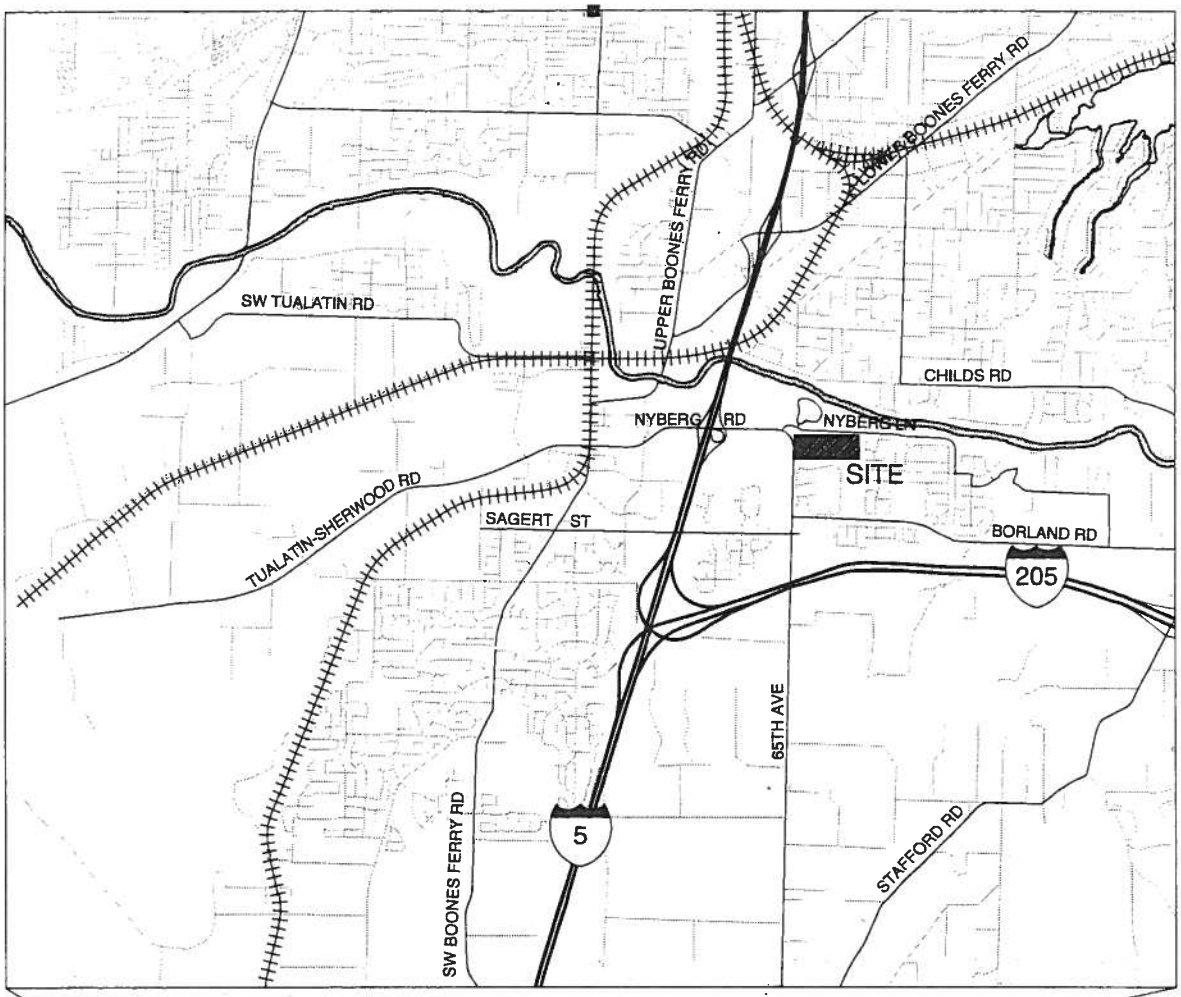
The analysis contained in this report identifies the transportation-related impacts associated with the proposed development. The report was prepared in accordance with City of Tualatin and Oregon Department of Transportation (ODOT) requirements. The study intersections and scope of this project were selected and approved through consultation with City staff as described in the scoping letter dated September 12, 2008 prepared by Kittelson & Associates, Inc (Reference 1). Subsequent meetings with City staff highlighted transportation concerns raised by citizens living in the vicinity of the proposed site and the report scope was expanded accordingly to address those concerns. The time periods studied in this analysis are the weekday a.m. and p.m. peak hours. Operational analyses were performed at the following study intersections for these time periods:

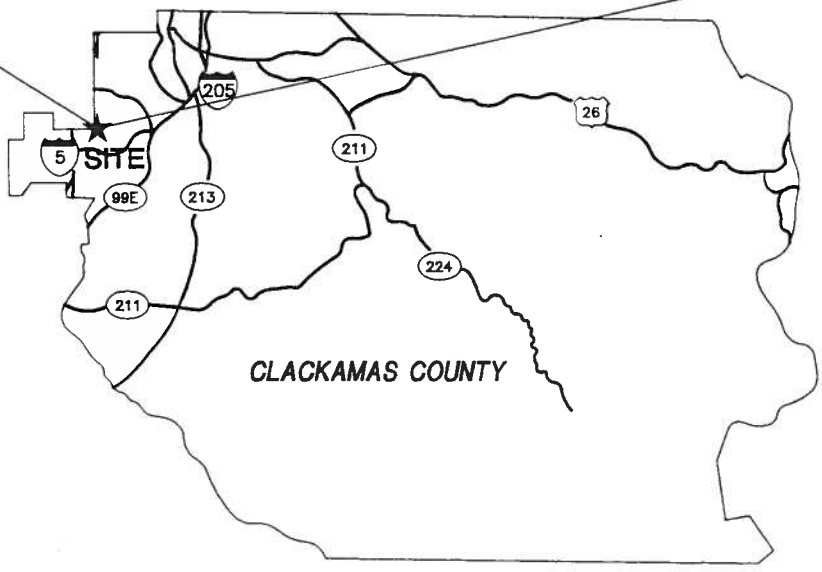
- SW Nyberg Road/I-5 Southbound Ramps,
- SW Nyberg Road/I-5 Northbound Ramps,
- SW Nyberg Road/Nyberg Woods Shopping Center,
- SW Nyberg Road/SW Nyberg Lane/SW 65th Avenue,
- SW Nyberg Lane/SW 57th Avenue,
- SW Borland Road/SW 65th Avenue,
- SW Borland Avenue/SW 57th Avenue, and
- SW Borland Avenue/SW Wilke Road/SW 50th Avenue.

This report evaluates the following transportation issues:

- Existing land-use and transportation-system conditions within the site vicinity during the weekday a.m. and p.m. peak hours;
- Developments and transportation improvements planned in the study area;
- Forecast year 2011 background traffic conditions during the weekday a.m. and p.m. peak hours;
- Trip generation and distribution estimates for the proposed Stafford Hills development;
- Forecast year 2011 total traffic conditions with the full build-out of the proposed development during the weekday a.m. and p.m. peak periods;
- In-process zone change applications in the study area (Meridian Park Hospital has started a zone-change application process, but had not applied as of the date of this study);
- Forecast year 2028 background traffic conditions, including impacts from the in-process zone change applications in the area during the weekday a.m. and p.m. peak periods;
- Forecast year 2028 total traffic conditions during the weekday a.m. and p.m. peak hours, including impacts from the Stafford Hills development;
- Neighborhood transportation impacts; and
- Site access and on-site traffic circulation.

(NO SCALE)





SITE VICINITY MAP
TUALATIN, OREGON

FIGURE 1

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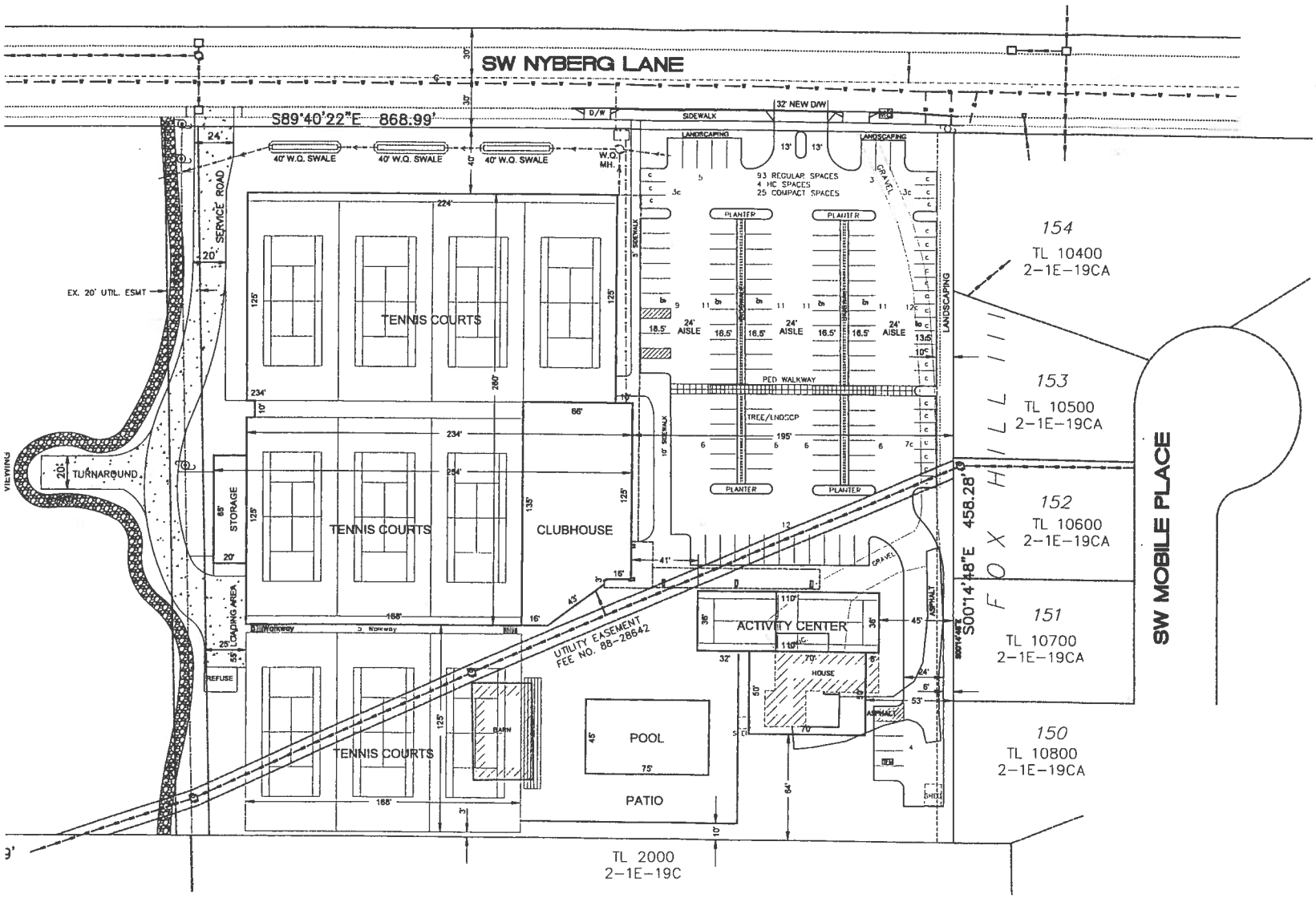

N
1"=60'

PROPOSED SITE PLAN
TUALATIN, OREGON

FIGURE 2

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING / PLANNING

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Section 3
Existing Conditions

Existing Conditions

The existing conditions analysis describes the site conditions and current operational and geometric characteristics of the roadways within the study area. These conditions will be compared with future conditions later in this report. The site of the proposed Stafford Hills development was visited and inventoried in October of 2008. At that time, information was collected regarding site conditions, adjacent land uses, existing traffic operations, and study area transportation facilities.

SITE CONDITIONS AND ADJACENT LAND USES

The site is bordered by Nyberg Lane and Brown's Ferry Park to the north, single-family residential uses to the east, SW 65th Avenue to the west, and Meridian Park Hospital to the south. The 15.7-acre site is currently vacant, except for a residential home with a barn located at the southeast corner. Most of the site is designated as wetlands and is located within the 100-year floodplain. Through a permitted wetland fill and mitigation, the eastern third of the site, approximately 5.6 acres, becomes developable.. The site is currently zoned as RL – Low Density Residential.

TRANSPORTATION FACILITIES

Roadway Facilities

As indicated in Figure 1, SW Nyberg Lane borders the site to the north. Figure 3 illustrates the existing lane configurations and traffic control devices at the study intersections. Table 1 summarizes the existing transportation facilities and roadways in the study area.

Pedestrian and Bicycle Facilities

Sidewalks and bike lanes are provided along SW Nyberg Lane. Field observations in the site vicinity identified relatively low levels of pedestrian and bicycle activity at the study intersections and along the study area roadways. Recreational pedestrian and bike activity increases during weekends.

Transit Facilities

Bus services are not currently provided along SW Nyberg Lane. The closest public transit service is provided by TriMet at Meridian Park Hospital, which is the terminus for Line 76, *Beaverton/Tualatin*. Line 76 operates at 30-minute headways (intervals) on weekdays and weekends. (Reference 2).

Table 1
Existing Transportation Facilities and Roadway Designations

Roadway	Classification	Operations Standard[1,2]	Cross Section	Speed Limit	Sidewalks	Bicycle Lanes	On-Street Parking
Interstate 5	Interstate	v/c 0.99	6 Lanes	55 mph	No	No	No
SW Nyberg Road	Major Arterial	LOS D/E	5-lane undivided	35 mph	Yes	Yes	No
SW Nyberg Lane	Minor Collector	LOS D/E	2-lane undivided	35 mph	Yes	Yes	No
SW 50th Avenue	Minor Collector	LOS D/E	2-lane undivided	35 mph	Yes	Yes	No
SW 57th Avenue	Local Street	LOS D/E	2-lane undivided	25 mph	Yes	No	No
SW 65th Ave	Minor Arterial	LOS D/E	3-lane undivided	35 mph	Yes	No	No
Borland Road	Minor Arterial	LOS D/E	3-lane undivided	35 mph	Partial	No	No

1. Tualatin's operations standard is level of service (LOS) D at signalized intersections and LOS E at unsignalized intersections. The volume-to-capacity ratio should also be less than 1.0.
2. .ODOT's operations standard for I-5 between Wilsonville and downtown Portland, including signalized intersections at ramp terminals, is a volume-to-capacity (v/c) ratio of 0.99.

TRAFFIC VOLUMES AND PEAK HOUR OPERATIONS

Manual turning-movement counts were conducted in October 2008 at the study intersections. Traffic counts were collected on a mid-week day during morning (7:00 a.m. to 9:00 a.m.) and afternoon (4:00 p.m. to 6:00 p.m.) peak periods. The study area's morning and afternoon peak hours were found to occur between 7:30 a.m. and 8:30 a.m. and 4:25 and 5:25 p.m., respectively. *Appendix "A" contains the traffic count worksheets used in this study.*

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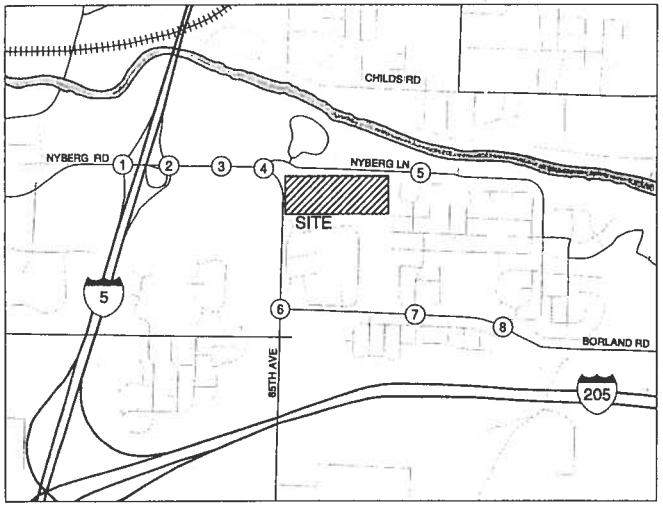

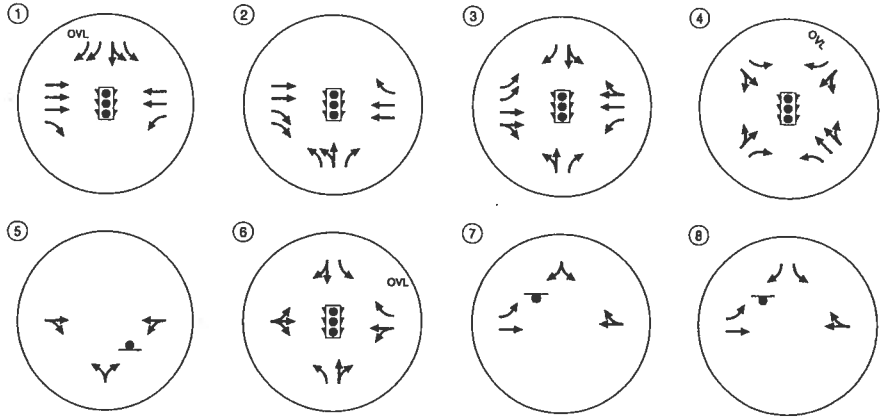

LEGEND

OVL - OVERLAP

- STOP SIGN

- TRAFFIC SIGNAL

2008 EXISTING LANE CONFIGURATIONS AND TRAFFIC CONTROL DEVICES

TUALATIN, OREGON

FIGURE **3**

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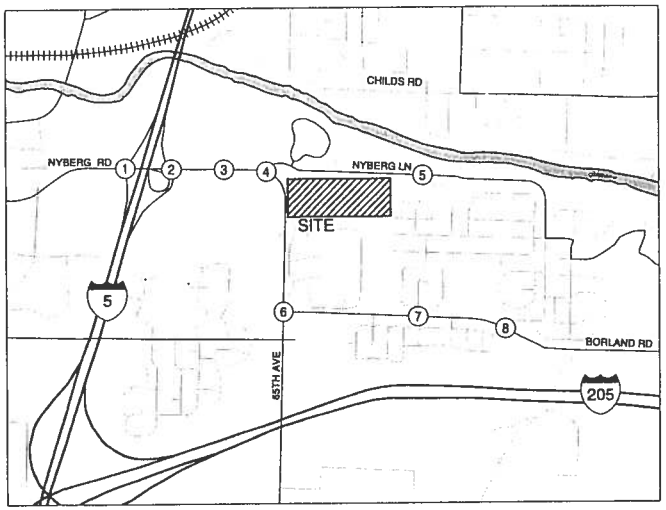
Current Levels of Service

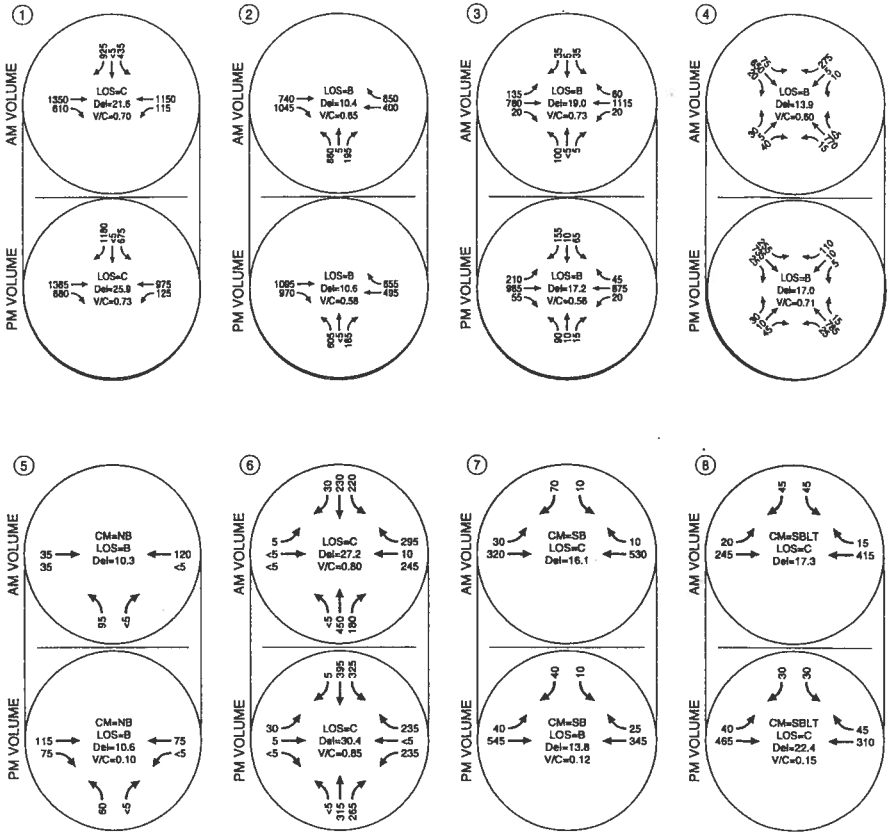
All level-of-service analyses described in this report were performed in accordance with the procedures stated in the *Highway Capacity Manual 2000* (Reference 3). *A description of level of service and the criteria by which it is determined is presented in Appendix "B".* The transportation system's performance is compared to the minimum transportation operational performance thresholds as defined by the City of Tualatin and the Oregon Department of Transportation (ODOT).

All intersection level-of-service evaluations used the peak 15-minute flow rate during the weekday a.m. and p.m. peak hours. Use of the peak 15-minute flow rate produces an analysis that reflects operational conditions that occur during the busiest 15 minutes of a typical peak hour.

Figure 4 summarizes the level-of-service analysis for the study intersections during weekday a.m. and p.m. peak hour conditions. As shown, all of the study intersections currently meet City of Tualatin and ODOT operating standards. *Appendix "C" includes the level-of-service worksheets under existing traffic conditions.*

(NO SCALE)





LEGEND

CM = CRITICAL MOVEMENT (UNSIGNALIZED)
LOS = INTERSECTION LEVEL OF SERVICE (SIGNALIZED)/CRITICAL MOVEMENT LEVEL OF SERVICE (UNSIGNALIZED)
Del = INTERSECTION AVERAGE CONTROL DELAY (SIGNALIZED)/CRITICAL MOVEMENT CONTROL DELAY (UNSIGNALIZED)
V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

2008 EXISTING TRAFFIC CONDITIONS
WEEKDAY AM AND PM PEAK HOURS
TUALATIN, OREGON

FIGURE 4

KITTELSON & ASSOCIATES, INC.
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Traffic Safety

The study intersections' crash history was reviewed to identify potential safety deficiencies. Crash records were obtained from ODOT for the most recent five-year period on record (January 1, 2003, through December 31, 2007). There were no fatalities reported at any of the study intersections. Table 2 summarizes the intersection crash data.

Table 2
Intersection Crash Summary (January 1, 2003 to December 31, 2007)

Intersection	Number of Crashes	Collision Type				Severity		Crash Rate[3] (per MEV[2])
		Rear End	Turning/ Side Swipe	Angle	Other	PDO[1]	Personal Injury	
SW Nyberg Rd/I-5 SB Off-ramp	78	51	21	2	4	39	39	0.82
SW Nyberg Rd/I-5 NB Off-ramp	23	16	6	0	1	14	9	0.32
SW Nyberg Rd/SW 65th Ave	6	4	1	0	1	3	3	0.16
SW 65th Ave/SW Borland Rd	20	9	3	5	3	14	6	0.60
SW 57th Ave/SW Borland Rd	1	1	0	0	0	0	1	0.05
SW Wilke Rd/SW Borland Rd	3	0	0	0	3	1	2	0.18
SW 57th/SW Nyberg Lane	0	0	0	0	0	0	0	0
SW Nyberg Lane/Shopping Center Signal[4]	12	4	8	0	0	6	6	0.26

[1] Property Damage Only
[2] MEV – Million Entering Vehicles
[3] Crash Rate = (Total Crashes) / (365 days/year x daily entering vehicles / 1,000,000)
[4] This intersection was not identified as a public intersection in ODOT's crash database. Therefore, the crashes reported for this intersection include crashes that may have occurred at nearby driveways.

SW Nyberg Road/I-5 SB Off-Ramp

Seventy-eight crashes were reported at the SW Nyberg Road/I-5 SB Off-Ramp intersection, with the majority of these (51 of the 78) classified as rear-end type crashes. The majority of these crashes occurred during the daytime with dry surface conditions and were spread throughout the available approaches with no apparent pattern. While the overall number of rear-end collisions is relatively high, crash rates at the intersection show that the number of crashes based on total entering vehicles are within a normal range, given the high volumes along both roadways. No sight distance deficiencies were observed at the intersection.

SW Nyberg Road/I-5 NB Off-Ramp

At the SW Nyberg Road/ I-5 NB Off-Ramp intersection, 23 crashes were reported in the past five years, with the majority of these (16 of the 23) classified as rear-end type crashes. The majority of these crashes occurred during the daytime with dry surface conditions and were mainly

concentrated with the I-5 northbound on-ramp traffic. While the overall number of rear-end collisions is high, crash rates at the intersection show that the number of crashes based on total entering vehicles are within a normal range, given the high volumes along both roadways. No sight distance deficiencies were observed at the intersection.

SW 65th Avenue/SW Borland Rd

At SW 65th Avenue/SW Borland Road, 20 crashes were reported during the past five years. Of these, 9 were rear-end crashes and 5 were angle crashes. The majority of the reported crashes (16 of 20) occurred during the day in dry pavement conditions (14 of 20). No sight distance deficiencies were observed at the intersection. The turning collisions reported at this intersection are slightly higher due to the inclusion of driveways close to the intersection in the overall crash total.

Washington County SPIS List

Washington County uses a ranking system of evaluating the crash rates at intersections along County roads. This system is known as the Safety and Priority Indexing System (SPIS). If a development is estimated to contribute more than ten percent of the daily traffic to any leg of an intersection on the SPIS list, mitigations may be necessary. SW 65th Avenue/Nyberg Road is on the most recent list (2004 – 2006), although it is ranked low at 247 out of 275 intersections. The rank of this intersection is decreasing (it was previously ranked 219) and there have not been any reported crashes in the last two years. The intersection was retimed in 2003. Given the declining trend in the accident history, no specific mitigation measures are recommended.

Safety Conclusions

None of the eight study intersections experience a crash rate greater than 1.0 crash per million entering vehicles, which is typically used as a threshold in identifying potential geometric or operational deficiencies. As expected, intersections with higher traffic volumes exhibited higher crash rates, which primarily consisted of rear-end crashes at the traffic signals.

Review of the crash data by time of day, roadway surface conditions, and crash type did not identify any crash patterns or any significant safety issues. *Appendix "D" contains the crash data.*

Section 4
Transportation Impact Analysis

Transportation Impact Analysis

The transportation impact analysis portion of the report evaluates how the study area's transportation system will operate in 2011, the year the proposed development is expected to be fully built and occupied. The City requested that the analysis also evaluate operations in the planning year 2028. The impact of the traffic that would be generated by the proposed Stafford Hills development was examined as follows:

- Planned and funded public roadway improvements, approved but unbuilt private developments, and upcoming zone change proposals in the site vicinity were identified and reviewed.
- 2011 background conditions were developed by applying a growth factor to the existing traffic volumes to account for regional traffic growth, and by adding in traffic from in-process development. Year 2028 background traffic volumes were estimated using the Tualatin Town Center Plan Study's year 2025 base network volume projections as a starting point, and then applying a growth factor to increase the volumes to year 2028 conditions. This process is consistent with the City's previous planning efforts and the City's transportation system plan.
- Background year 2011 traffic conditions were analyzed at the study intersections during the weekday a.m. and p.m. peak hours.
- Weekday daily, weekday a.m. and p.m. peak hour site-generated trips were estimated for build-out of the site.
- Trip distribution patterns were developed based on existing traffic patterns, population and employment distributions for the project area, and the location of major trip destinations in the region.
- Year 2011 total traffic conditions, including Stafford Hills traffic, were analyzed at the study intersections and site-access points during the weekday a.m. and p.m. peak hour.
- Year 2028 background traffic conditions were analyzed at the study intersections during the weekday a.m. and p.m. peak hours using the volume projections for 2028 and adding the potential traffic from the upcoming zone change application for Meridian Park Hospital.
- Year 2028 total traffic conditions, including Stafford Hills traffic, were analyzed at the study intersections during the weekday a.m. and p.m. peak hours.
- Neighborhood traffic impacts were evaluated.
- On-site circulation and site-access operations were evaluated.

YEAR 2011 BACKGROUND TRAFFIC CONDITIONS

The year 2011 background traffic analysis identifies how the study area's transportation system will operate in 2011 without the proposed Stafford Hills development. This analysis includes traffic attributed to planned developments within the study area and to general growth in the region, but does not include traffic from the proposed development.

Planned Developments and Transportation Improvements

City staff identified no planned and funded transportation improvements within the site vicinity. However, staff identified several in-process development projects and proposals in the site vicinity. The following two developments were included under the 2011 background conditions:

a. Famous Dave's Restaurant (under construction in Nyberg Woods Center)

b. Sagert Office Park – Michael's Dental Office (northwest corner of Sagert Street/SW 72nd Avenue)

In addition, Meridian Park Hospital has met with the City about an upcoming proposal to rezone a 20-acre site adjacent to the hospital from RL – Low Density Residential to MC – Medical Center. Since Meridian Park Hospital had no specific near-term development proposal for their site at the time of writing, the potential increase in traffic from the hospital was not included in the year 2011 analyses, but was included in the year 2028 analyses.

Traffic Volumes

The growth rate used in this analysis was derived from historical traffic counts (a comparison of 2000 to 2008 volumes) and previous planning efforts by the City of Tualatin. Between 2000 and 2008, traffic grew in the study area by an average 1.5 percent per year. Therefore, the year 2011 background traffic volumes were developed by applying a 1.5-percent annual growth rate to the existing traffic volumes, and by adding traffic from planned development projects in the site vicinity. Figure 5 illustrates the 2011 background traffic volumes.

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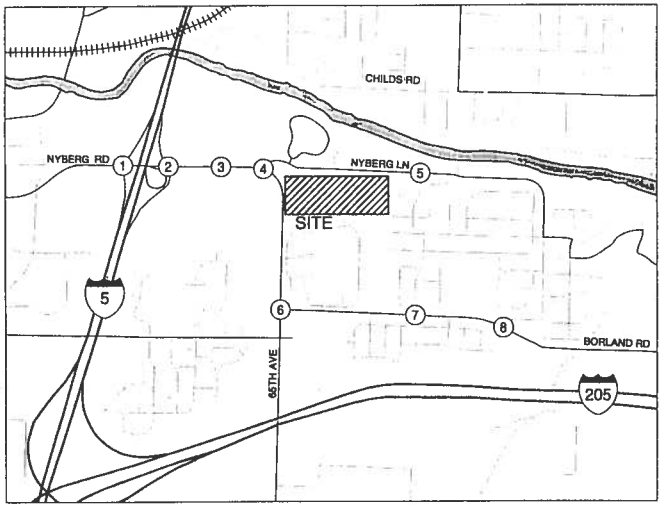

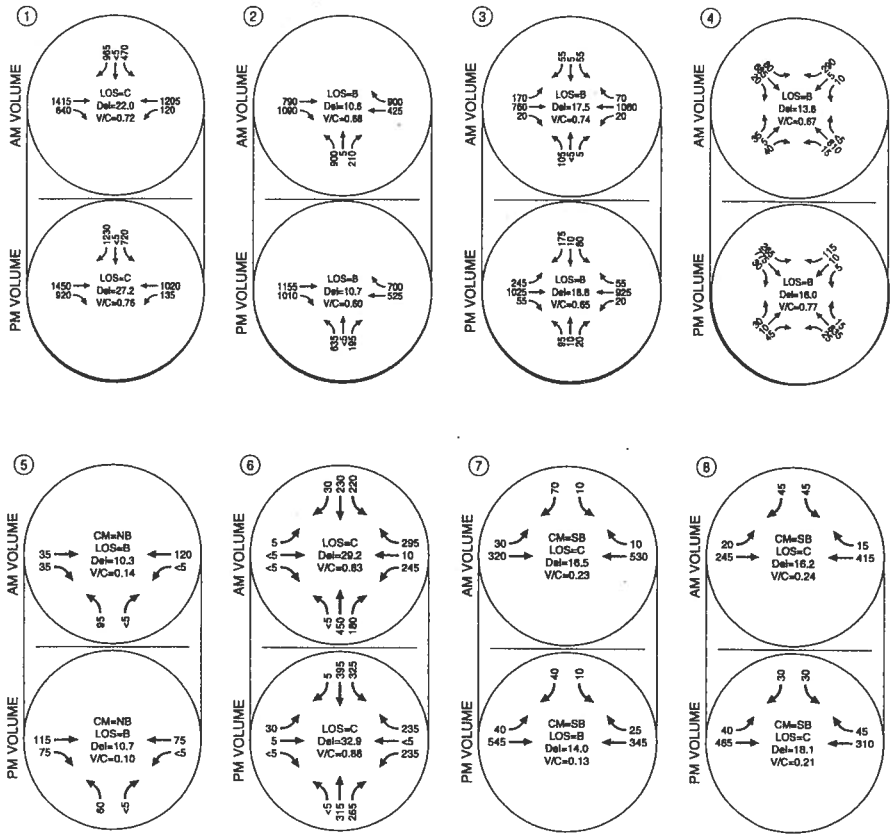

LEGEND

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2011 BACKGROUND TRAFFIC CONDITIONS
WEEKDAY AM AND PM PEAK HOURS
TUALATIN, OREGON

FIGURE **5**

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Level-of-Service Analysis

As indicated in Figure 5, all of the study intersections are forecast to continue to meet City and ODOT operating standards in 2011. *Appendix "E" contains the year 2011 background traffic level-of-service worksheets.*

PROPOSED DEVELOPMENT PLAN

The proposed development plan calls for 7 indoor and 3 outdoor tennis courts with removable cover, and a 16,000 square-foot clubhouse, which includes a 8,000 square-foot fitness center. The plan also shows some auxiliary features such as a kids club and a pool area. The current zoning, RL – Low Density Residential, allows for private clubs as a conditional use.

Trip Generation

Traffic engineers and local and state review agencies commonly rely upon information contained in the Institute of Traffic Engineers (ITE) *Trip Generation* manual (Reference 4) for estimating trip generation rates of proposed land uses. Although the ITE data is typically used as a standard reference for traffic impacts, it is based on national studies that may not represent unique developments or local conditions. As identified in the Trip Generation Manual User's Guide, it is preferable to collect field data to better measure and represent the local environment. Site-specific data is most reliable when it is collected from developments that closely match the characteristics of the development for which it would be applied.

Based on the above considerations, trip generation surveys were conducted at the West Hills Racquet & Fitness Club located in Portland on Cedar Hills Boulevard and Mountain Park Racquet Club in Lake Oswego. The West Hills Racquet & Fitness Club has 8 indoor and 6 outdoor tennis courts, and approximately 4,000 square feet of fitness center as well as a year-round pool, child care and limited food service. The Mountain Park Racquet Club includes 9 indoor and 6 outdoor tennis courts, minimal (approximately 1,000 square feet) fitness center, and no other auxiliary uses. Please note that traffic data was obtained in early January, a traditionally high season for health and sports related activities for people after the holidays. Therefore, the data presents a conservative trip generation result at these locations. Table 3 summarizes this information. *Appendix "F" shows the trip generation data during these time periods.*

Table 3
Summary of West Hills and Mountain Park Trip Generation Counts

Location	Date	Weekday A.M Peak Trip Generation	Weekday P.M Peak Trip Generation
West Hills	January 6, 2009	50 (35 in/15 out) 8:00 – 9:00 a.m.	101 (58 in/43 out) 4:00– 5:00 p.m.
Mountain Park	January 6, 2009	66 (52 in/14 out) 8:00 – 9:00 a.m.	82 (43 in/39 out) 4:45– 5:45 p.m.

In addition to the local trip generation studies shown in Table 3, weekday daily, a.m. and p.m. peak hour vehicle trip generation estimates for the proposed site were derived from empirical observations at other similar developments using the standard reference manual, *Trip Generation, 8th Edition*, published by the Institute of Transportation Engineers (Reference 4). Table 4 summarizes the trip generation estimates for the proposed site based on the ITE data.

Table 4
Estimated Trip Generation

Land Use	ITE Code	Size sq ft	Daily Trips	Weekday AM Peak Hour Trips			Weekday PM Peak Hour Trips		
				Total	In	Out	Total	In	Out
Fitness Club	492	8,000	280[1]	11[2]	5	6	28	16	12
Racquet/Tennis Club	491	14 courts	540	32[2]	16	16	47[2]	23	23
Total			820	43	21	22	75	40	36

1. ITE data is not available for fitness club daily trips. Ten times the weekday p.m. peak hour volumes were used to estimate daily trips.
2. Peak hour of generator data was used to obtain more conservative estimates, where sufficient data does not exist for the peak hour of adjacent street traffic.

As shown in Table 4, the ITE data is predicting lower trip generation during both the a.m. and p.m. peak hours than was observed at the West Hills Athletic Club (which is considered to be most comparable to the proposed Stafford Hills Racquet and Fitness Club). Therefore, in order to be conservative and consistent with the ITE recommendation to use local data, the trip generation obtained from West Hills Racquet & Fitness Club was used for the proposed site. For this type of use, daily trips can be estimated as ten times the weekday p.m. peak hour trip generation, which would result in 1,010 trips per day.

Site Trip Distribution and Trip Assignment

The distribution of site-generated trips onto the study area roadway system was estimated based on an examination of the transportation facilities within the site vicinity, existing peak hour directional travel characteristics, and an understanding of the site's location and access to the surrounding roadway network. This trip distribution pattern was reviewed and approved for use by the City of Tualatin. The estimated trip distribution pattern is shown in Figure 6.

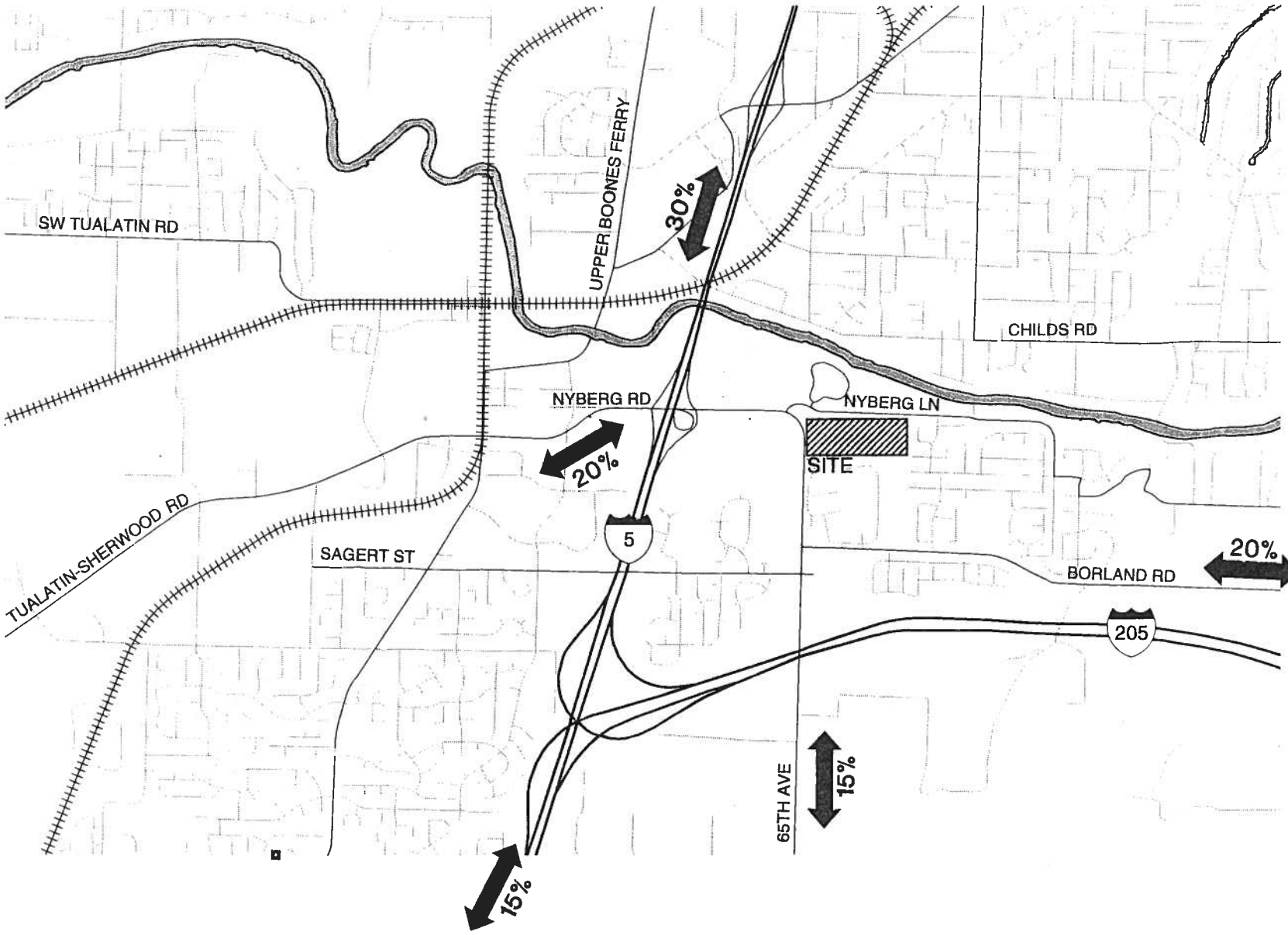
Figure 7 illustrates the assignment of the site-generated trips to each of the study intersections and the site access driveway in the weekday a.m. and p.m. peak hours.

YEAR 2011 TOTAL TRAFFIC CONDITIONS

The total traffic conditions analysis forecasts how the study area's transportation system will operate with the traffic generated by the proposed Stafford Hills development. The year 2011 background traffic volumes for the weekday a.m. and p.m. peak hour were added to the site-generated traffic to arrive at the total traffic volumes shown in Figure 8.

Intersection Level of Service

The weekday a.m. and p.m. peak hour turning-movement volumes were used to evaluate the operation of each study intersection in the year 2011. As indicated in Figure 8, all of the study intersections are forecast to operate at acceptable levels. *Appendix "G" contains the year 2011 total traffic level-of-service worksheets.*



ESTIMATED TRIP DISTRIBUTION PATTERN
TUALATIN, OREGON

FIGURE 6

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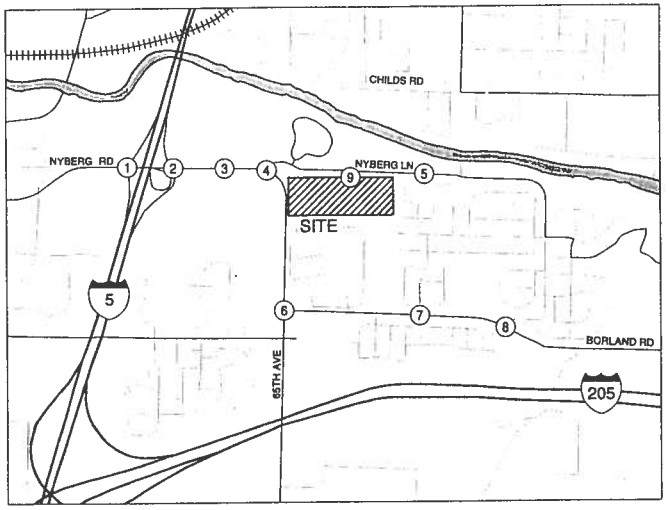

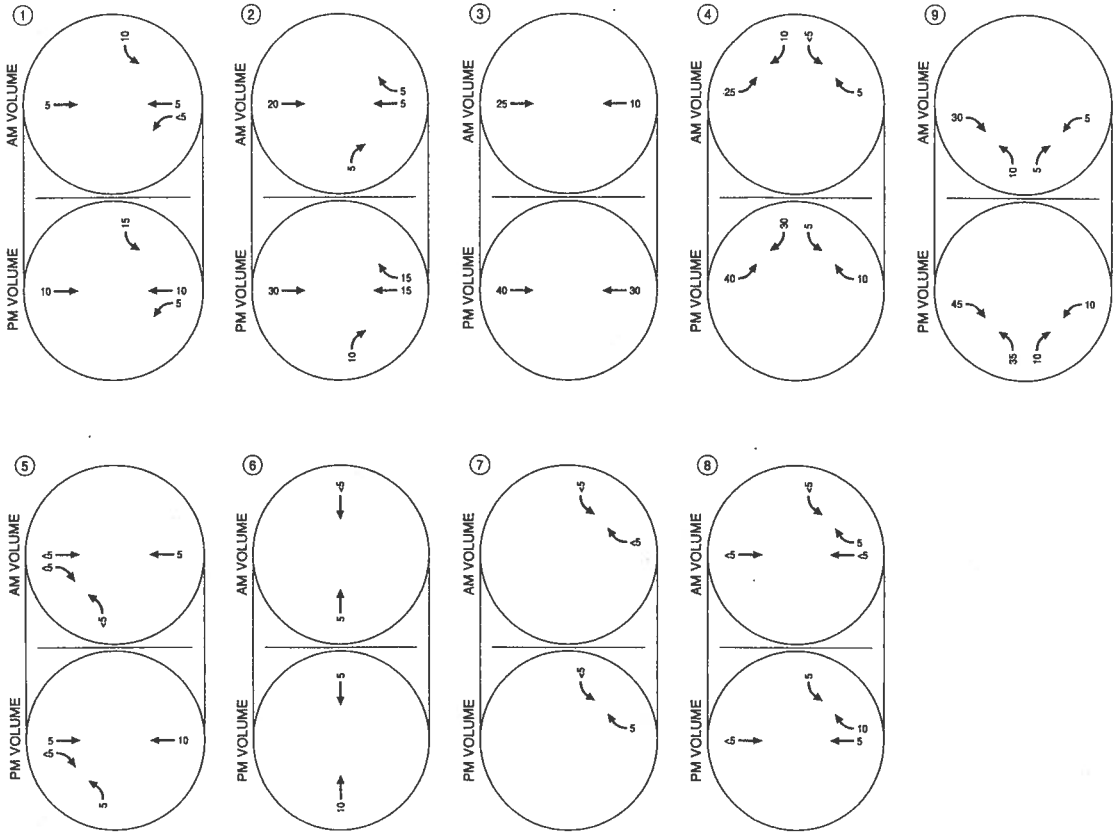

2011 ESTIMATED NET NEW SITE-GENERATED TRIPS
WEEKDAY AM AND PM PEAK HOURS
TUALATIN, OREGON

FIGURE **7**

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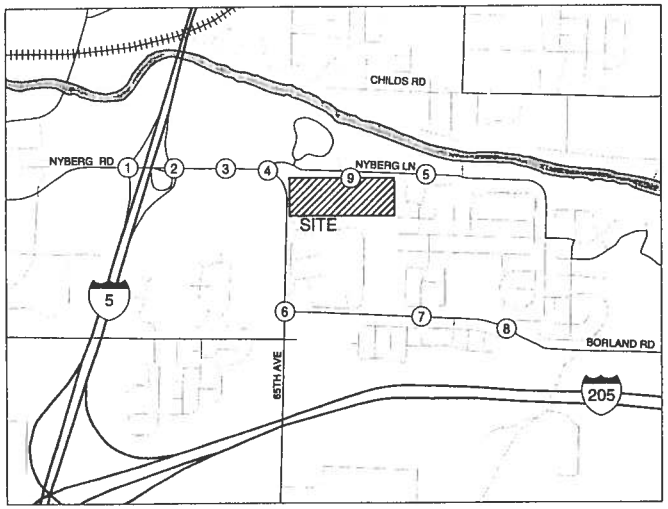

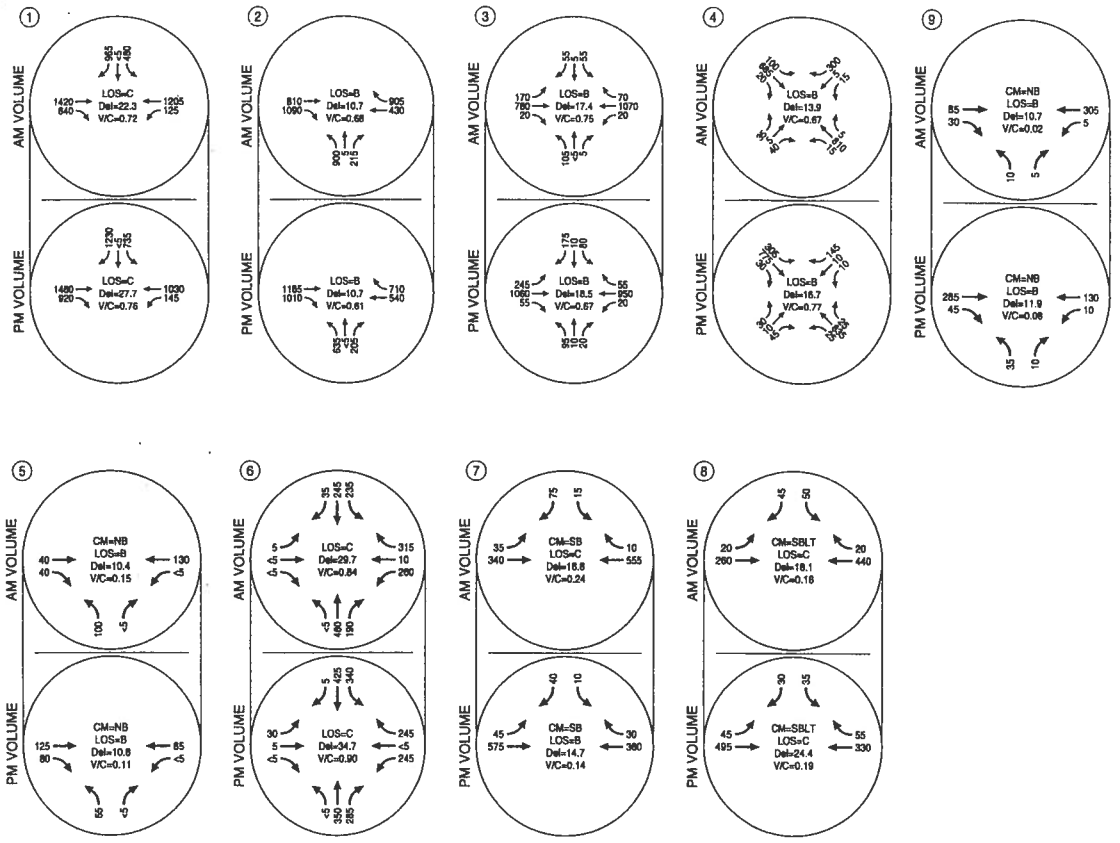

LEGEND

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2011 TOTAL TRAFFIC CONDITIONS
WEEKDAY AM AND PM PEAK HOURS
TUALATIN, OREGON

FIGURE **B**

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING / PLANNING

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QUEUING

Queuing conditions at the site access driveway and the Nyberg Road/SW 65th Avenue intersection were analyzed under 2011 and 2028 total traffic weekday p.m. peak hour conditions. Table 5 presents the results of the queuing analysis and indicates the turn lane storage length that is needed for each movement at each location. As shown in the table, the forecast queues can be accommodated within the existing storage distances. *The related worksheets are included in Appendix "H".*

Table 5
Estimated Queue Lengths – Weekday PM Peak Hour

Intersection	Movement & Approach	Year 2011 Queue Length (ft)	Year 2028 Queue Length (ft)	Available Storage (ft)	Adequate Storage Available?
SW Nyberg Road/SW 65th Avenue	SBRT	75	100	150	Yes
	SBTH/LT	25	50	Continuous	Yes
	NBRT	50	50	100	Yes
	NBTH/LT	50	75	100	Yes
	WBTH	275	475	Continuous	Yes
	WBLT	50	50	100	Yes
	EBTH	600	850	Continuous 2-lane	Yes
	EBLT	275	375/300[1]	300	Yes
Site Access/NE Nyberg Lane	NBLT	25	25	To be provided	Yes
	WBLT	25	25	Shared thru/left lane	Yes

[1]The queue length of 375 feet is obtained using Synchro 7's signal split optimization. By manually optimizing the EBLT split, a 300 feet queue (or lower) can be obtained. This intersection has excess capacity that could be allocated towards certain movements to manage queues.

Intersection Right-Turn Lane Warrants

ODOT's right-turn lane warrant methodology was used to evaluate the need for right-turn lanes at the site access driveway on Nyberg Lane. The results indicate right-turn lanes will not be warranted at the unsignalized access driveway along Nyberg Lane. *Right-turn lane warrant worksheets are provided in Appendix I.*

Intersection Sight Distance

The required intersection sight distance at the proposed site driveway is summarized in Table 6. As indicated in the table, adequate sight distance is available.

Table 6
Intersection Sight Distance

Intersection	Available Intersection Sight Distance	Posted Speed	Distance Required
Accesses along Nyberg Lane	>350 Feet Available to the East >350 Feet Available to the West	35 mph	350 Feet

YEAR 2028 BACKGROUND TRAFFIC CONDITIONS

The City of Tualatin requested a forecast year of 2028 (a 20-year future) be used for all study intersections as a planning-level assessment to identify potential future needs.

Traffic Forecast Methodology

The City's transportation system plan (TSP) has a planning horizon of 2020. This is the most recent adopted plan for the City. The Tualatin Town Center Plan, a study that was completed in 2005, has a planning horizon of 2025. The Town Center Plan included traffic volume projections at the Nyberg/I-5 interchange area and investigated various transportation alternatives and land use scenarios for the Town Center. This study has been "accepted" but not formally adopted by the City, pending further visioning work by the City for the Town Center. The details of the plan are available to public through the City's website. The volume projections developed from the Town Center Plan's base roadway network scenario (including the I-5/99W Connector, but no other new roadway connections were used).

In order to provide consistency with the City's previous planning efforts, the 2025 volume projections that were developed as part of the Tualatin Town Center project were used as a starting point in developing the 2028 projections. The Town Center Plan's base volumes were adjusted for the impacts from Nyberg Woods Retail Center, which opened subsequent to the Town Center Plan being finalized, as well as for background traffic growth between the years 2025 and 2028.

In addition, potential traffic that could be generated from a "reasonable worst case" development scenario for proposed zone change at Meridian Park Hospital (250,000 square feet of medical office buildings) was added in to obtain the final 2028 background traffic projections. The hospital is not proposing any specific development as part of their zone change request, and would therefore need to come back at a later date with a development application to build anything on the site. Therefore, the traffic impacts from the hospital zone change were only included in the 2028 background conditions, but not the 2011 background conditions.

Figure 9 shows the volume projections as well as intersection operations under 2028 background conditions. Operational analysis of year 2028 background conditions shows all study intersections are forecast to continue to meet jurisdiction operating standards. *Appendix "J" includes the 2028 background traffic level-of-service worksheets.*

YEAR 2028 TOTAL TRAFFIC CONDITIONS

Future Traffic Volumes

The year 2028 background traffic volumes for the weekday a.m. and p.m. peak hours were added to the potential traffic from the proposed development scenario for the site, shown in Figure 7, to arrive at the year 2028 total traffic volumes, shown in Figure 10.

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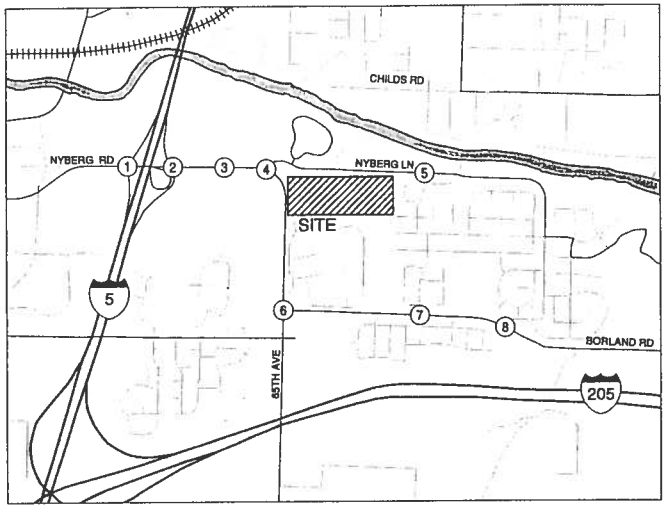

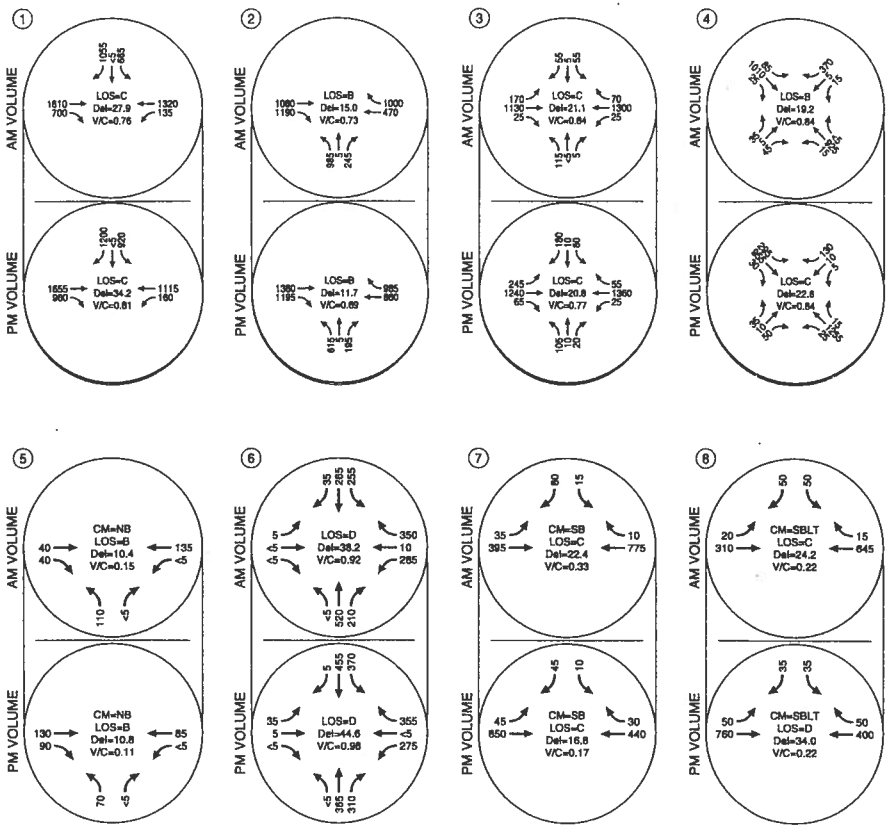

LEGEND

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2028 BACKGROUND TRAFFIC CONDITIONS
WEEKDAY AM AND PM PEAK HOURS
TUALATIN, OREGON

FIGURE 9

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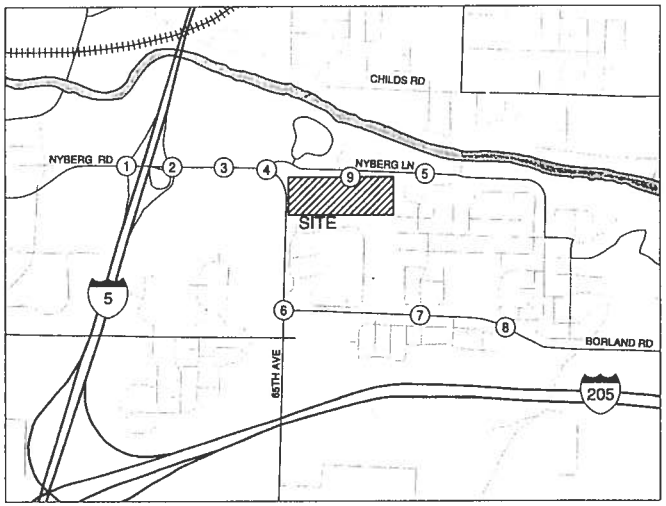
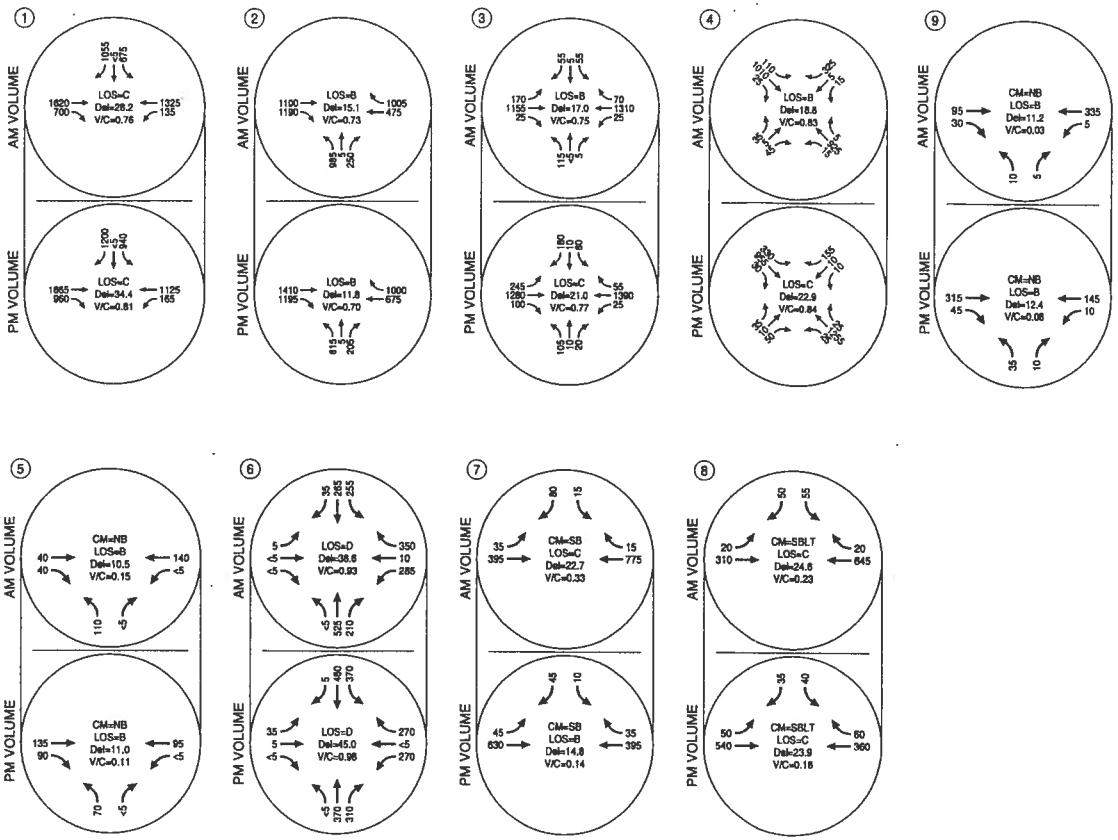




LEGEND

CM = CRITICAL MOVEMENT (UNSIGNALIZED)
LOS = INTERSECTION LEVEL OF SERVICE (SIGNALIZED)/CRITICAL MOVEMENT LEVEL OF SERVICE (UNSIGNALIZED)
Del = INTERSECTION AVERAGE CONTROL DELAY (SIGNALIZED)/CRITICAL MOVEMENT CONTROL DELAY (UNSIGNALIZED)
V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

2028 TOTAL TRAFFIC CONDITIONS
WEEKDAY AM AND PM PEAK HOURS
TUALATIN, OREGON

FIGURE **10**

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING / PLANNING

H:\proj\file\9700 - Nyberg Multi-family Development\dwgs\fig\s9700FinalLdwg Feb 17, 2009 - 1:58pm - saltun Layout Tab: Fig10

Intersection Level of Service

The weekday a.m. and p.m. peak-hour turning-movement volumes shown in Figure 10 were used to evaluate the operations of each study intersection in 2028. The results indicate that all of the study intersections continue to meet jurisdiction operating standards. *Appendix "K" includes the year 2028 total traffic level-of-service worksheets.*

NEIGHBORHOOD TRAFFIC IMPACTS

Residents of the Fox Hills neighborhood expressed concerns about the potential for increased traffic in their neighborhood, resulting from Stafford Hills driving to and from SW Borland Road. Specific streets mentioned by neighbors as concerns included SW 57th Avenue, SW 50th Avenue, and SW Joshua Street. Note that 25 to 35 percent of the club members are expected to reside in the Fox Hills neighborhood or work at the hospital, therefore, traffic coming from the neighborhood will primarily consist of the residents themselves.

To respond to neighborhood concerns, estimates were made of the likely increase in daily traffic on SW 50th Avenue, SW 57th Avenue, and SW Joshua Street between SW Nyberg Lane and SW Borland Road. As indicated in the Trip Generation section of this report, the proposed development would result in a potential net increase of approximately 1,010 vehicles per day. Approximately 20 percent of the traffic (200 vehicles per day) would come from or go to SW Borland Road. Based on a series of travel time runs on various routes through the neighborhood, members of Stafford Hills traveling to/from SW Borland Road would most likely take either SW Nyberg Lane, which transitions to SW 50th Avenue/SW Wilkes Road (hereafter referred to as the SW 50th Avenue route), or SW 57th Avenue. Traveling through the neighborhood on SW Joshua Street was significantly longer than the other alternatives and as such is not likely to be a desirable route through the neighborhood.

Travel time runs showed approximately the same travel time on either the SW 57th or SW 50th route. However, the SW 50th route is more desirable, as it constructed to Minor Collector standards, rather than Local Street standards, it has a posted speed of 35 mph, and is not accessed directly by residential driveways, except for one home on Wilkes Road.

In contrast, SW 57th Avenue is not a continuous route between SW Nyberg Lane and SW Borland Road, has a posted speed of 25 mph, and is fronted directly by single family homes on both sides of the street resulting in significantly more potential for interruptions along the route.

It is difficult to be precise in estimating the increase in daily traffic on SW 50th and SW 57th Avenues, but based on the above considerations, a reasonable estimate is an additional 140-160 vehicle per day on SW 50th Avenue and 35-60 vehicles per day on SW 57th Avenue. The added traffic on SW 50th Avenue is easily accommodated as (a) it is a designated Collector street and therefore is expected to carry trips from the neighborhood (of which Stafford Hills would be a part) to the City's arterial street system, and (b) the operational analysis results confirmed that the SW Wilkes Rd/SW Borland Street intersection (the controlling capacity constraint on the route) can accommodate the additional

traffic demand. SW 50th Avenue currently carries approximately 1,900 vehicles per day. The added 140-160 vehicles per day represent an increase about 8 percent.

With regard to the impact to SW 57th Avenue, the northern segment of SW 57th Avenue (between SW Natchez Street and SW Nyberg Lane) currently carries approximately 1,400 vehicles per day. The southern section of SW 57th Avenue (between SW Joshua Street and SW Borland Road) currently carries approximately 1,100 vehicles per day. The added 35-60 vehicles per day represent an increase of 3-5 percent. This increase is within the typical day-to-day fluctuation in daily traffic volumes on SW 57th Avenue. Accordingly, it is reasonable to conclude that at the existing volume level, the increase in traffic would be generally imperceptible to residents and would not change the character of the street.

ON-SITE ACCESS AND CIRCULATION

The site's internal circulation was evaluated to ensure that the site provides sufficient on-site circulation for pedestrian movements and internal site traffic. Truck circulation was also reviewed to ensure that single-unit trucks, garbage trucks, delivery trucks, and emergency vehicles could safely access and maneuver within the site. The project's parking requirements will be addressed by the Zupancic Group development team.

Section 5
Conclusions and
Recommendations

Conclusions and Recommendations

This Transportation Impact Analysis was prepared in accordance with the standards set forth by the City of Tualatin and the Oregon Department of Transportation (ODOT). The study documents that the proposed Stafford Hills Racquet & Fitness Club project can be developed as anticipated while maintaining acceptable traffic operations and safety on the adjacent transportation network. A more complete summary of key findings is described below.

FINDINGS

Year 2008 Existing Conditions

- All of the study intersections operate at acceptable levels of service during the weekday a.m. and p.m. peak hours.
- A review of historical crash data did not reveal any crash patterns or safety deficiencies at any of the study intersections.

Year 2011 Background (without Stafford Hills) Traffic Conditions

- All of the study intersections are forecast to operate at acceptable levels of service during the weekday a.m. and p.m. peak hours.

Proposed Development Plan

- The proposed development is estimated to generate 1,010 daily net new trips; of these, 50 net new trips (35 inbound, 15 outbound) are anticipated during the weekday a.m. peak hour; and 100 net new trips (60 inbound, 40 outbound) are anticipated during the weekday p.m. peak hour.
- As proposed, the Stafford Hills development would provide a single full-access driveway onto Nyberg Lane (as shown in Figure 2). A service and emergency access will also be provided along the western edge of the property, which will also serve as a pedestrian path.

Year 2011 Total (With-Proposed Development) Traffic Conditions

- All of the study intersections and the access driveway are forecast to operate at acceptable levels of service during the weekday a.m. and p.m. peak hours.

Year 2028 Background (Without Proposed Zone Change) Traffic Conditions

- All of the study intersections are forecast to operate at acceptable levels of service during the weekday a.m. and p.m. peak hours.

Year 2028 Total (With Proposed Development) Traffic Conditions

- All of the study intersections are forecast to operate at acceptable levels of service during the weekday a.m. and p.m. peak hours.

Neighborhood Traffic Impacts

- Average daily traffic on SW 57th Avenue is expected to increase by 3 to 5 percent (approximately 35 to 60 trips per day) due to the proposed development. This increase is within the day to day fluctuation in daily traffic volume on SW 57th Avenue. Accordingly, it is reasonable to conclude that the anticipated increase in traffic would be below a level that could be perceived by residents, and would not change the character of the street.
- Average daily traffic on SW 50th Avenue is expected to increase by about 8 percent (approximately 140 – 160 trips per day) due to the proposed development. This increase is also within the day to day fluctuation in daily traffic volume on SW 50th Avenue. Furthermore, SW 50th Avenue is a designated Collector street and therefore it is serving its intended purpose (to carry trips from the neighborhood to the City's arterial street system).

On-Site Circulation/Site-Access Operations

- The site's driveway will operate acceptably as proposed, with STOP control for movements out of the driveway, and with full access into and out of the driveway allowed.
- Adequate intersection sight distance is available at the site-access driveway.
- Adequate storage is available at the site-access driveway to accommodate the forecast 95th-percentile queues.

RECOMMENDATIONS

The following list provides a summary of the study's transportation-related recommendations for the Stafford Hills development.

- A full-access driveway should be provided onto Nyberg Lane as shown on the site plan (Figure 2).
- Shrubbery and landscaping near the internal intersections and site access point should be located and maintained to ensure adequate intersection sight distance is provided. Utilities and monument signs should also be appropriately located.

Additional details of the study methodology, findings, and recommendations are provided within this report.

Section 6
References

References

1. Kittelson & Associates, Inc. *Transportation Impact Analysis Scoping Letter*. February 27, 2008.

2. Transportation Research Board. *Highway Capacity Manual*. 2000.

3. TriMet. http://www.trimet.org. October, 2008.

4. Institute of Transportation Engineers. *8th Edition, Trip Generation Manual*. 2008.

Appendix A
Traffic Count Data

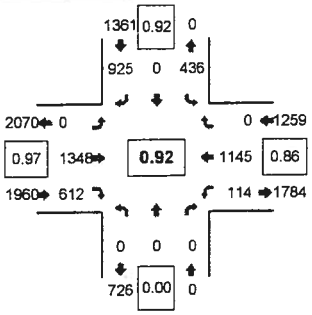
Type of peak hour being reported: Intersection Peak

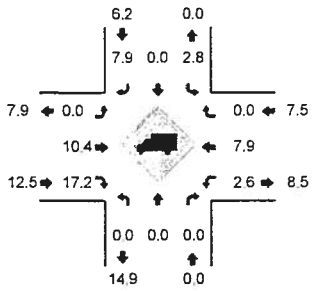
Method for determining peak hour: Total Entering Volume

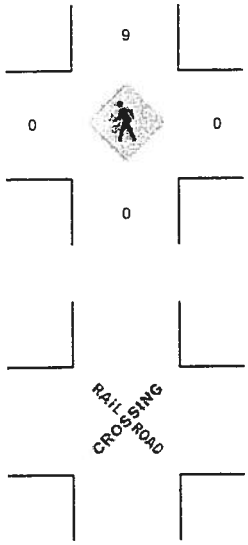
LOCATION: I-5 SB Off Ramp -- SW Nyberg Rd
CITY/STATE: Tualatin, OR

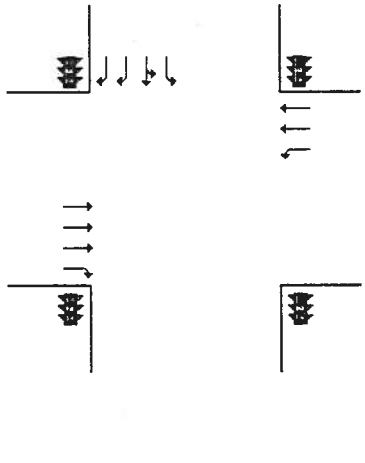
QC JOB #: 10385607
DATE: 9/30/2008

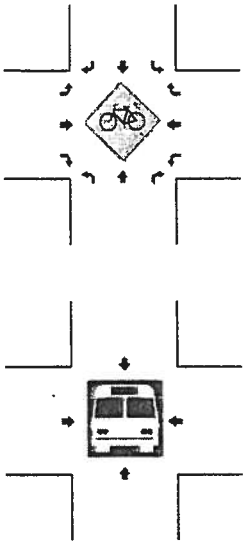
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:40 AM -- 7:55 AM











5-Min Count Period Beginning At	I-5 SB Off Ramp (Northbound)				I-5 SB Off Ramp (Southbound)				SW Nyberg Rd (Eastbound)				SW Nyberg Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	26	0	77	0	0	128	58	0	9	71	0	0	369	
7:05 AM	0	0	0	0	23	1	61	0	0	108	29	0	13	91	0	0	326	
7:10 AM	0	0	0	0	17	0	57	0	0	139	38	0	8	76	0	0	335	
7:15 AM	0	0	0	0	23	0	66	0	0	117	48	0	10	86	0	0	350	
7:20 AM	0	0	0	0	34	0	72	0	0	119	62	0	11	77	0	0	375	
7:25 AM	0	0	0	0	30	0	75	0	0	93	42	0	13	81	0	0	334	
7:30 AM	0	0	0	0	23	0	80	0	0	104	53	0	5	88	0	0	353	
7:35 AM	0	0	0	0	27	0	95	0	0	100	56	0	11	105	0	0	394	
7:40 AM	0	0	0	0	28	0	82	0	0	134	49	0	11	112	0	0	416	
7:45 AM	0	0	0	0	33	0	94	0	0	117	53	0	12	113	0	0	422	
7:50 AM	0	0	0	0	32	0	98	0	0	108	44	0	10	111	0	0	403	
7:55 AM	0	0	0	0	49	0	64	0	0	120	49	0	9	94	0	0	385	4462
8:00 AM	0	0	0	0	37	0	81	0	0	102	50	0	8	106	0	0	384	4477
8:05 AM	0	0	0	0	42	0	72	0	0	107	52	0	12	75	0	0	360	4511
8:10 AM	0	0	0	0	46	0	55	0	0	146	51	0	6	97	0	0	401	4577
8:15 AM	0	0	0	0	32	0	53	0	0	96	46	0	8	100	0	0	335	4562
8:20 AM	0	0	0	0	36	0	80	0	0	111	55	0	18	64	0	0	364	4551
8:25 AM	0	0	0	0	51	0	71	0	0	103	54	0	4	80	0	0	363	4580
8:30 AM	0	0	0	0	36	0	58	0	0	101	41	0	5	90	0	0	331	4558
8:35 AM	0	0	0	0	37	0	62	0	0	101	54	0	4	67	0	0	325	4489
8:40 AM	0	0	0	0	30	0	56	0	0	101	44	0	5	89	0	0	325	4398
8:45 AM	0	0	0	0	32	1	62	0	0	112	41	0	7	63	0	0	318	4294
8:50 AM	0	0	0	0	37	0	65	0	0	105	34	0	7	72	0	0	320	4211
8:55 AM	0	0	0	0	44	0	73	0	0	94	60	0	3	81	0	0	355	4181

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	372	0	1096	0	0	1436	584	0	132	1344	0	0	4964
Heavy Trucks	0	0	0		8	0	76		0	160	88		0	92	0		424
Pedestrians		0				16				0				0			16
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/5/2008 11:09 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

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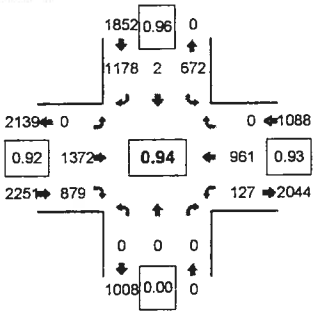
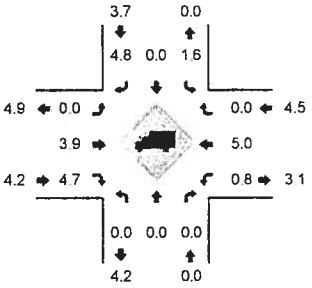
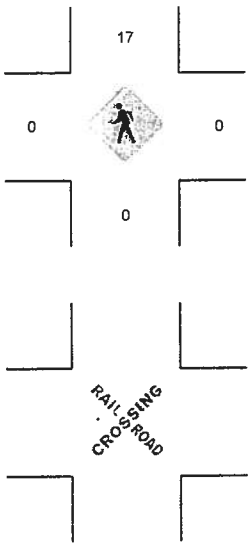
CITY/STATE: Tualatin, OR

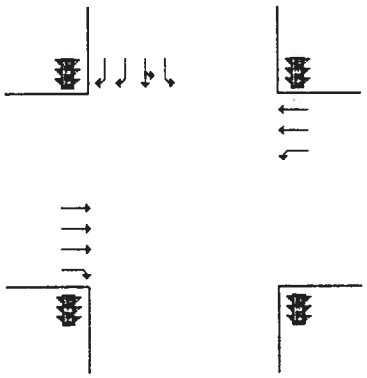
QC JOB #: 10385608
DATE: 9/30/2008

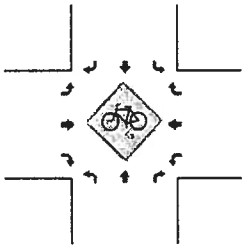


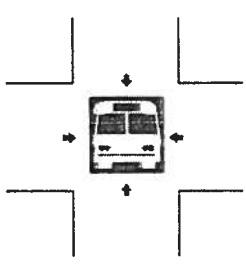
Peak-Hour: 4:25 PM -- 5:25 PM
Peak 15-Min: 5:05 PM -- 5:20 PM











5-Min Count Period	I-5 SB Off Ramp (Northbound)				I-5 SB Off Ramp (Southbound)				SW Nyberg Rd (Eastbound)				SW Nyberg Rd (Westbound)				Total	Hourly Totals
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	58	0	101	0	0	101	68	0	4	82	0	0	414	
4:05 PM	0	0	0	0	46	0	85	0	0	115	85	0	13	76	0	0	420	
4:10 PM	0	0	0	0	49	0	89	0	0	112	83	0	13	90	0	0	436	
4:15 PM	0	0	0	0	66	0	85	0	0	117	73	0	15	80	0	0	436	
4:20 PM	0	0	0	0	54	2	88	0	0	124	73	0	13	89	0	0	443	
4:25 PM	0	0	0	0	43	2	72	0	0	118	69	0	8	88	0	0	400	
4:30 PM	0	0	0	0	50	0	92	0	0	86	68	0	7	81	0	0	384	
4:35 PM	0	0	0	0	62	0	104	0	0	115	75	0	8	83	0	0	447	
4:40 PM	0	0	0	0	52	0	114	0	0	107	73	0	11	77	0	0	434	
4:45 PM	0	0	0	0	50	0	97	0	0	139	79	0	7	81	0	0	453	
4:50 PM	0	0			55	0	9	0		11	81	0	16	84	0	0	436	
4:55 PM	0	0	0	0	64	0	94	0	0	102	69	0	16	66	0	0	411	5114
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5:05 PM	0	0	0	0	63	0	108	0	0	125	74	0	10	86	0	0	466	5132
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5:25 PM	0	0	0	0	60	0	102	0	0	92	45	0	10	72	0	0	381	5172
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5:35 PM	0	0	0	0	54	0	100	0	0	84	52	0	5	78	0	0	373	5098
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5:45 PM	0	0	0	0	62	0	101	0	0	92	52	0	6	80	0	0	393	4974
5:50 PM	0	0	0	0	55	0	93	0	0	113	64	0	13	76	0	0	414	4952
5:55 PM	0	0	0	0	48	0	97	0	0	130	60	0	7	76	0	0	418	4959

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	748	0	1236	0	0	1524	920	0	124	948	0	0	5500
Heavy Trucks	0	0	0		4	0	40		0	44	24		0	32	0		144
Pedestrians		0				28				0				0			28
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/5/2008 11:09 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

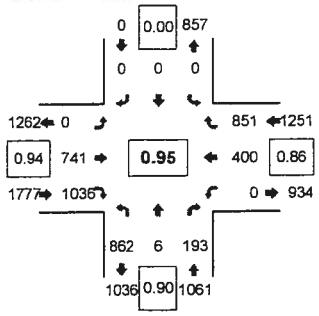
Type of peak hour being reported: Intersection Peak

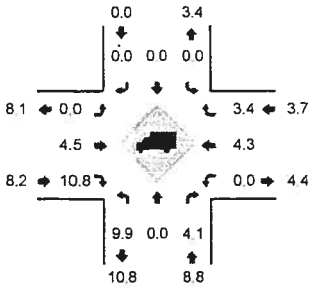
Method for determining peak hour: Total Entering Volume

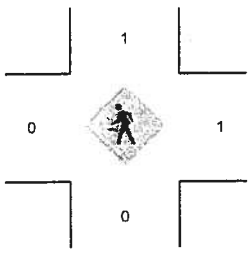
LOCATION: I-5 NB Off Ramp -- SW Nyberg Rd
CITY/STATE: Tualatin, OR

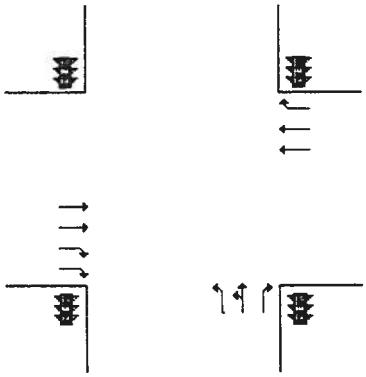
QC JOB #: 10385605
DATE: 9/30/2008

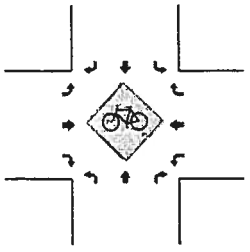
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:40 AM -- 7:55 AM

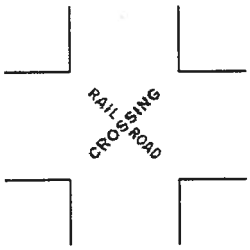


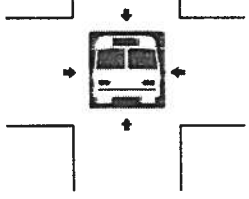












5-Min Count Period Beginning At	I-5 NB Off Ramp (Northbound)				I-5 NB Off Ramp (Southbound)				SW Nyberg Rd (Eastbound)				SW Nyberg Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	69	0	13	0	0	0	0	0	0	44	109	0	0	20	44	0	299	
7:05 AM	61	0	11	0	0	0	0	0	0	38	91	0	0	35	49	0	285	
7:10 AM	73	0	7	0	0	0	0	0	0	19	136	0	0	16	66	0	317	
7:15 AM	64	0	7	0	0	0	0	0	0	49	90	0	0	32	72	0	314	
7:20 AM	65	0	13	0	0	0	0	0	0	49	104	0	0	21	66	0	318	
7:25 AM	60	0	11	0	0	0	0	0	0	47	76	0	0	32	71	0	297	
7:30 AM	75	0	15	0	0	0	0	0	0	48	78	0	0	32	78	0	326	
7:35 AM	90	1	19	0	0	0	0	0	0	39	88	0	0	27	86	0	350	
7:40 AM	67	1	9	0	0	0	0	0	0	60	101	0	0	48	77	0	368	
7:45 AM	79	1	12	0	0	0	0	0	0	58	91	0	0	40	78	0	359	
7:50 AM	79	0	14	0	0	0	0	0	0	50	90	0	0	43	79	0	355	
7:55 AM	77	2	18	0	0	0	0	0	0	81	87	0	0	35	60	0	360	3943
8:00 AM	88	0	19	0	0	0	0	0	0	68	71	0	0	24	67	0	337	3981
8:05 AM	60	0	20	0	0	0	0	0	0	62	86	0	0	28	56	0	312	4008
8:10 AM	69	0	18	0	0	0	0	0	0	79	112	0	0	25	57	0	360	4051
8:15 AM	76	1	10	0	0	0	0	0	0	39	89	0	0	32	79	0	326	4063
8:20 AM	44	0	21	0	0	0	0	0	0	89	58	0	0	40	63	0	315	4060
8:25 AM	58	0	18	0	0	0	0	0	0	68	85	0	0	26	71	0	326	4089
8:30 AM	61	0	14	0	0	0	0	0	0	58	79	0	0	29	59	0	300	4063
8:35 AM	58	0	14	0	0	0	0	0	0	51	87	0	0	33	70	0	313	4026
8:40 AM	55	0	15	0	0	0	0	0	0	52	78	0	0	29	66	0	295	3958
8:45 AM	44	1	18	0	0	0	0	0	0	55	89	0	0	22	57	0	286	3885
8:50 AM	47	0	17	0	0	0	0	0	0	50	92	0	0	29	55	0	290	3820
8:55 AM	64	0	11	0	0	0	0	0	0	75	63	0	0	23	60	0	296	3756

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	900	8	140	0	0	0	0	0	0	672	1128	0	0	524	936	0	4308
Heavy Trucks	72	0	8		0	0	0		0	36	124		0	20	32		292
Pedestrians		0				0				0				0			0
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/5/2008 11:09 AM

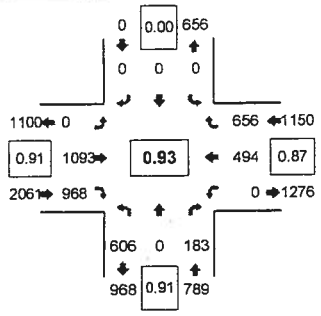
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

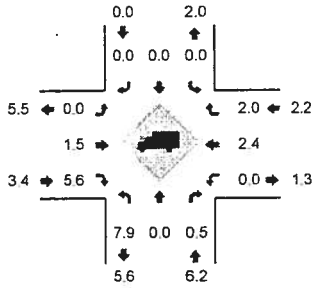
Method for determining peak hour: Total Entering Volume

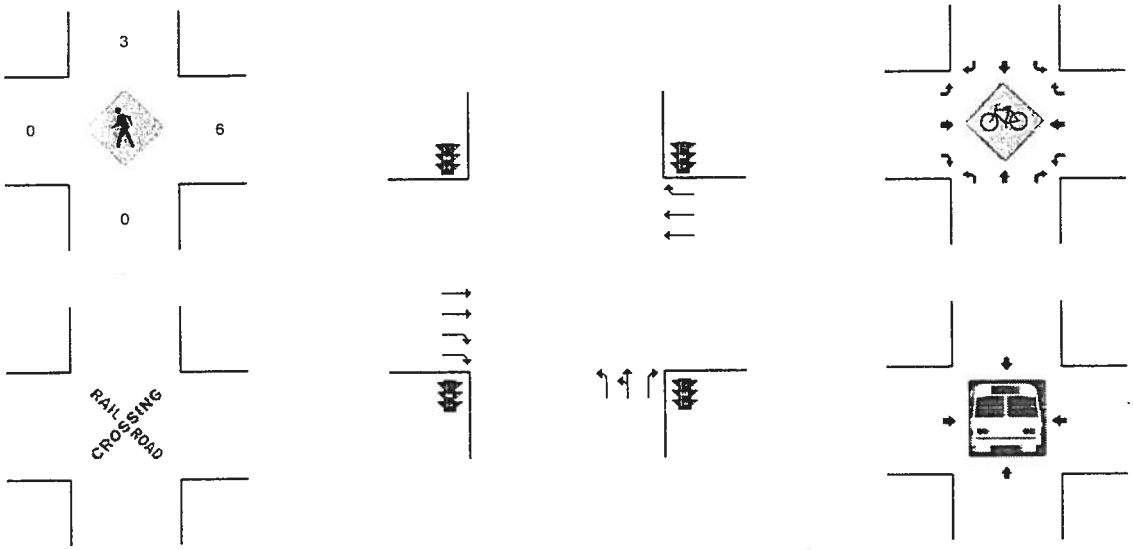
LOCATION: I-5 NB Off Ramp -- SW Nyberg Rd
CITY/STATE: Tualatin, OR

QC JOB #: 10385606
DATE: 9/30/2008



Peak-Hour: 4:20 PM -- 5:20 PM
Peak 15-Min: 5:05 PM -- 5:20 PM





5-Min Count Period Beginning At	I-5 NB Off Ramp (Northbound)				I-5 NB Off Ramp (Southbound)				SW Nyberg Rd (Eastbound)				SW Nyberg Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	33	0	8	0	0	0	0	0	0	91	77	0	0	43	44	0	296	
4:05 PM	48	0	16	0	0	0	0	0	0	75	81	0	0	42	47	0	309	
4:10 PM	50	0	15	0	0	0	0	0	0	80	74	0	0	45	64	0	328	
4:15 PM	63	0	12	0	0	0	0	0	0	92	86	0	0	41	41	0	335	
4:20 PM	50	0	15	0	0	0	0	0	0	95	87	0	0	41	50	0	338	
4:25 PM	71	0	13	0	0	0	0	0	0	84	89	0	0	34	47	0	338	
4:30 PM	51	0	16	0	0	0	0	0	0	68	63	0	0	33	53	0	284	
4:35 PM	55	0	20	0	0	0	0	0	0	100	82	0	0	34	63	0	354	
4:40 PM	59	0	15	0	0	0	0	0	0	85	72	0	0	40	64	0	335	
4:45 PM	46	0	15	0	0	0	0	0	0	88	107	0	0	37	56	0	349	
4:50 PM	51	0	15	0	0	0	0	0	0	93	73	0	0	44	42	0	318	
4:55 PM	47	0	15	0	0	0	0	0	0	104	66	0	0	42	45	0	319	3903
5:00 PM	48	0	14	0	0	0	0	0	0	81	56	0	0	35	55	0	289	3896
5:05 PM	46	0	14	0	0	0	0	0	0	101	87	0	0	54	64	0	366	3953
5:10 PM	36	0	18	0	0	0	0	0	0	83	96	0	0	46	63	0	342	3987
5:15 PM	46	0	13	0	0	0	0	0	0	111	90	0	0	54	54	0	368	4000
5:20 PM	55	0	15	0	0	0	0	0	0	92	86	0	0	44	38	0	330	3992
5:25 PM	38	0	14	0	0	0	0	0	0	95	71	0	0	37	47	0	302	3956
5:30 PM	45	0	11	0	0	0	0	0	0	80	50	0	0	51	54	0	291	3963
5:35 PM	57	0	12	0	0	0	0	0	0	77	64	0	0	31	46	0	287	3896
5:40 PM	49	0	11	0	0	0	0	0	0	88	59	0	0	25	53	0	285	3846
5:45 PM	61	0	15	0	0	0	0	0	0	89	54	0	0	25	32	0	276	3773
5:50 PM	49	0	11	0	0	0	0	0	0	97	68	0	0	42	39	0	306	3761
5:55 PM	53	0	14	0	0	0	0	0	0	93	82	0	0	35	51	0	328	3770

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	512	0	180	0	0	0	0	0	0	1180	1092	0	0	616	724	0	4304
Heavy Trucks	28	0	0		0	0	0		0	8	56		0	4	8		104
Pedestrians		0				4				0				4			8
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/5/2008 11:09 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

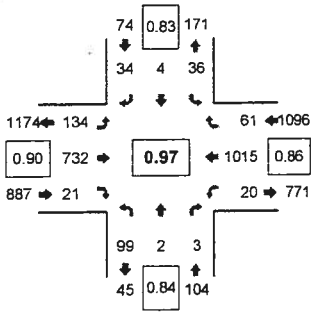
Type of peak hour being reported: Intersection Peak

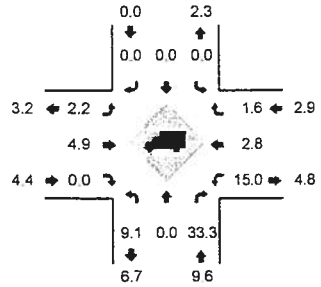
Method for determining peak hour: Total Entering Volume

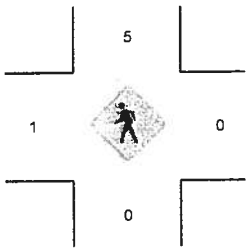
LOCATION: Shopping Center Best Buy Signal -- SW Nyberg Rd
CITY/STATE: Tualatin, OR

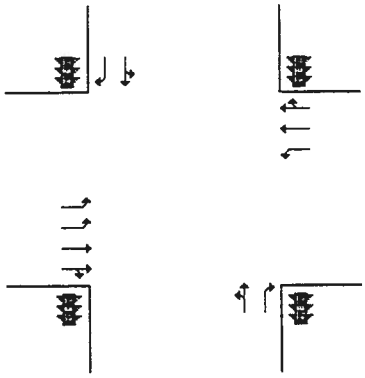
QC JOB #: 10385603
DATE: 9/30/2008

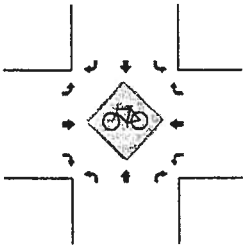
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 8:15 AM -- 8:30 AM

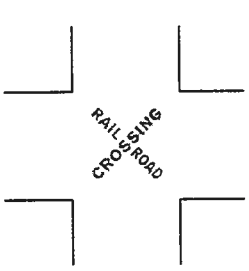


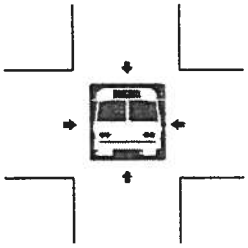












5-Min Count Period Beginning At	Shopping Center Best Buy Signal (Northbound)				Shopping Center Best Buy Signal (Southbound)				SW Nyberg Rd (Eastbound)				SW Nyberg Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	6	0	0	0	1	0	0	0	8	50	1	1	0	65	4	0	136	
7:05 AM	6	0	0	0	2	0	0	0	9	31	1	1	2	66	4	0	122	
7:10 AM	8	0	0	0	4	0	4	0	2	26	3	0	0	63	3	0	113	
7:15 AM	4	0	0	0	0	0	4	0	8	36	2	3	0	92	14	0	163	
7:20 AM	6	0	0	0	3	0	5	0	14	44	3	4	0	63	3	0	145	
7:25 AM	9	0	0	0	6	0	3	0	8	41	0	0	0	87	1	0	155	
7:30 AM	5	1	0	0	4	1	1	0	5	51	1	7	0	87	5	0	168	
7:35 AM	10	0	1	0	4	0	3	0	8	48	2	2	2	108	9	0	197	
7:40 AM	5	0	0	0	4	0	3	0	7	52	2	3	0	103	3	0	182	
7:45 AM	5	0	0	0	1	1	0	0	11	51	0	1	3	85	4	0	162	
7:50 AM	14	0	0	0	2	0	0	0	6	43	1	1	2	103	5	0	177	
7:55 AM	8	0	0	0	1	0	2	0	12	88	3	1	1	81	10	0	207	1927
8:00 AM	5	0	0	0	4	0	4	0	5	68	3	3	4	70	7	0	173	1964
8:05 AM	9	1	0	0	5	0	2	0	10	62	1	1	2	59	2	0	154	1996
8:10 AM	8	0	0	0	3	0	4	0	13	72	2	4	3	70	3	0	182	2065
8:15 AM	11	0	2	0	2	0	8	0	10	47	1	3	1	86	4	0	175	2077
8:20 AM	9	0	0	0	3	1	5	0	12	84	3	0	1	80	3	0	201	2133
8:25 AM	10	0	0	0	3	1	2	0	9	66	2	0	1	83	6	0	183	2161
8:30 AM	9	0	1	0	4	0	3	0	10	66	3	0	0	65	5	0	166	2159
8:35 AM	6	1	0	0	2	0	1	0	5	59	1	0	0	96	8	0	179	2141
8:40 AM	6	0	1	0	1	0	2	0	8	49	2	0	0	87	5	0	161	2120
8:45 AM	6	0	0	0	3	1	3	0	9	65	3	1	0	66	5	0	162	2120
8:50 AM	3	0	0	0	5	1	4	0	5	54	1	0	0	77	3	0	153	2096
8:55 AM	2	2	0	0	2	1	6	0	14	55	4	0	0	63	4	0	153	2042

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	120	0	8	0	32	8	60	0	124	788	24	12	12	996	52	0	2236
Heavy Trucks	16	0	4		0	0	0		0	40	0		0	44	4		108
Pedestrians		0				4				4				0			8
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/5/2008 11:09 AM

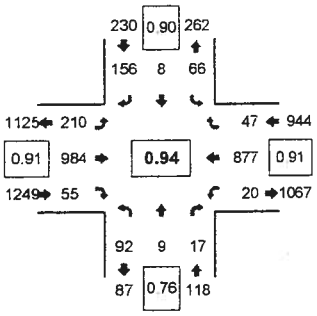
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

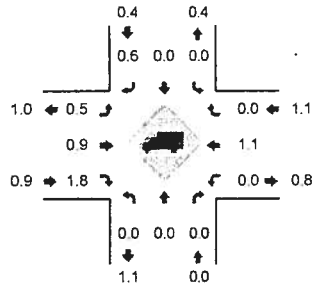
Method for determining peak hour: Total Entering Volume

LOCATION: Shopping Center Best Buy Signal -- SW Nyberg Rd
CITY/STATE: Tualatin, OR

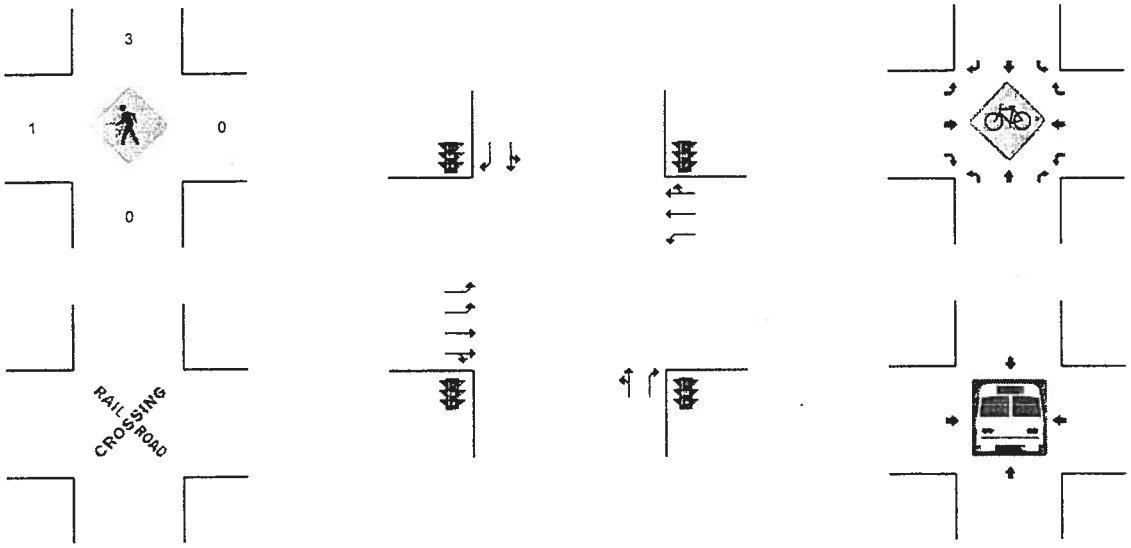
QC JOB #: 10385604
DATE: 9/30/2008



Peak-Hour: 4:35 PM -- 5:35 PM
Peak 15-Min: 5:05 PM -- 5:20 PM



Quality Counts



5-Min Count Period Beginning At	Shopping Center Best Buy Signal (Northbound)				Shopping Center Best Buy Signal (Southbound)				SW Nyberg Rd (Eastbound)				SW Nyberg Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	0	0	0	3	0	12	0	20	64	1	0	2	69	4	0	179	
4:05 PM	4	0	0	0	3	2	23	0	16	85	2	0	1	66	4	0	206	
4:10 PM	11	2	0	0	8	2	10	0	10	61	10	0	1	76	4	0	195	
4:15 PM	5	4	0	0	7	0	10	0	19	84	2	0	3	64	3	0	201	
4:20 PM	6	0	1	0	4	0	11	0	20	84	4	0	1	65	7	0	203	
4:25 PM	8	0	1	0	7	0	8	0	8	88	4	0	0	69	4	0	197	
4:30 PM	4	0	0	0	9	0	12	0	9	69	5	0	1	60	2	0	171	
4:35 PM	12	0	0	1	7	0	11	0	22	77	5	1	0	81	7	0	214	
4:40 PM	7	1	3	0	7	0	12	0	23	64	5	0	2	84	2	0	210	
4:45 PM	4	1	1	0	4	1	8	0	16	86	3	0	2	78	4	0	208	
4:50 PM	8	0	0	2	9	1	17	0	19	85	6	2	1	80	6	0	216	
4:55 PM	9	0	0	0	0	0	11	0	25	83	5	0	0	61	5	0	199	2399
5:00 PM	9	0	3	0	8	1	17	0	11	78	5	0	3	69	3	0	207	2427
5:05 PM	8	2	0	0	5	1	13	0	12	78	5	0	3	83	2	0	212	2433
5:10 PM	12	1	3	0	3	0	17	0	13	89	3	0	1	82	6	0	230	2468
5:15 PM	12	1	1	0	7	1	16	0	25	89	6	0	4	68	6	0	236	2503
5:20 PM	3	1	3	1	3	0	10	0	16	89	5	1	3	69	3	0	207	2507
5:25 PM	5	2	2	0	6	2	14	0	12	97	4	0	0	73	1	0	218	2528
5:30 PM	9	0	1	0	7	1	10	0	12	69	3	0	1	69	2	0	184	2541
5:35 PM	3	2	1	0	2	1	9	0	13	73	1	0	1	64	9	0	179	2506
5:40 PM	5	1	0	0	5	0	10	0	26	66	4	0	0	54	10	0	181	2477
5:45 PM	5	0	1	0	3	0	8	0	13	88	4	0	6	51	4	0	183	2452
5:50 PM	5	0	0	0	7	1	16	0	18	78	4	0	4	46	8	0	187	2423
5:55 PM	4	1	0	0	8	0	13	0	22	82	5	0	0	61	5	0	201	2425

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	128	16	16	0	60	8	184	0	200	1024	56	0	32	932	56	0	2712
Heavy Trucks	0	0	0		0	0	4		0	4	4		0	4	0		16
Pedestrians		0				4				0				0			4
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/5/2008 11:09 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

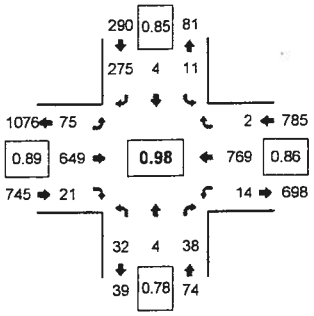
LOCATION: SW 65th Ave – SW Nyberg St

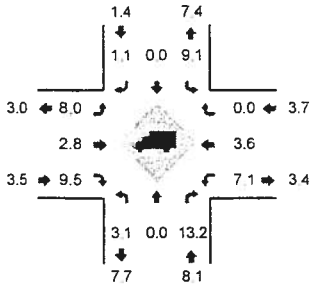
CITY/STATE: Tualatin, OR

QC JOB #: 10385601

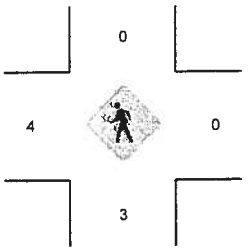
DATE: 9/30/2008

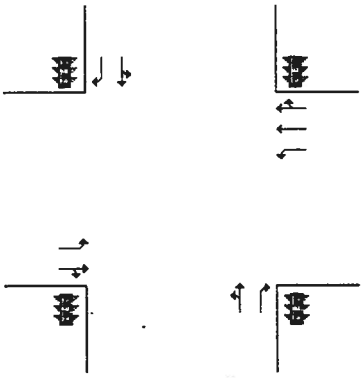
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

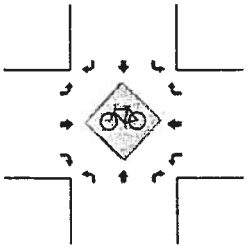


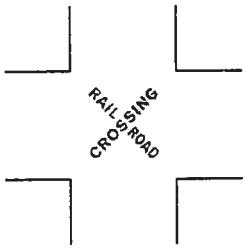


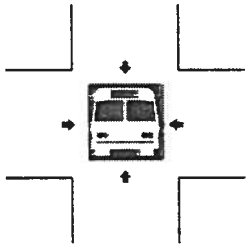
Quality Counts











5-Min Count Period Beginning At	SW 65th Ave (Northbound)				SW 65th Ave (Southbound)				SW Nyberg St (Eastbound)				SW Nyberg St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	1	1	0	0	4	15	0	8	40	1	0	0	38	0	0	112	
7:05 AM	2	1	2	0	1	1	16	0	5	29	0	0	0	50	0	0	107	
7:10 AM	0	0	1	0	0	1	21	0	5	22	2	0	4	51	0	0	107	
7:15 AM	5	0	1	0	0	0	22	0	4	34	1	0	1	64	0	0	132	
7:20 AM	1	0	0	0	1	1	19	0	3	39	0	0	5	47	0	0	116	
7:25 AM	3	0	0	0	3	0	19	0	3	42	2	0	2	52	0	0	126	
7:30 AM	3	0	2	0	0	0	30	0	4	39	2	0	2	77	1	0	160	
7:35 AM	2	1	3	0	1	2	33	0	8	38	2	0	0	81	1	0	172	
7:40 AM	1	0	3	0	2	0	20	0	8	48	2	0	0	65	0	0	149	
7:45 AM	2	0	6	0	1	0	31	0	4	42	2	0	0	59	0	0	147	
7:50 AM	2	0	4	0	0	0	30	0	4	43	1	0	2	76	0	0	162	
7:55 AM	2	2	2	0	0	1	18	0	10	60	3	0	3	55	0	0	156	1646
8:00 AM	4	0	2	0	1	1	19	0	5	65	1	0	1	66	0	0	165	1699
8:05 AM	2	0	3	0	2	0	16	0	10	67	2	0	0	45	0	0	147	1739
8:10 AM	1	0	3	0	2	0	31	0	6	52	3	0	1	58	0	0	157	1789
8:15 AM	3	0	3	0	1	0	15	0	4	60	1	0	2	62	0	0	151	1808
8:20 AM	6	0	3	0	1	0	17	0	7	64	2	0	2	65	0	0	167	1859
8:25 AM	4	1	4	0	0	0	15	0	5	71	0	0	1	60	0	0	161	1894
8:30 AM	1	1	4	0	1	0	15	0	6	53	2	0	1	62	1	0	147	1881
8:35 AM	4	0	0	0	1	1	22	0	6	52	1	0	4	76	1	0	168	1877
8:40 AM	2	1	3	0	1	0	19	0	1	52	2	0	1	63	2	0	147	1875
8:45 AM	2	0	1	0	2	0	15	0	2	63	2	0	1	45	1	0	134	1862
8:50 AM	2	0	1	0	0	2	22	0	6	46	0	0	0	57	0	0	136	1836
8:55 AM	0	0	2	0	1	0	18	0	3	54	0	0	3	54	0	0	135	1815

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	8	32	0	4	8	268	0	76	672	20	0	24	788	0	0	1932
Heavy Trucks	4	0	4		0	0	4		16	8	0		0	28	0		64
Pedestrians		8				0				12				0			20
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/5/2008 11:09 AM

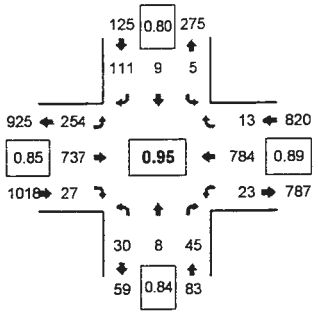
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

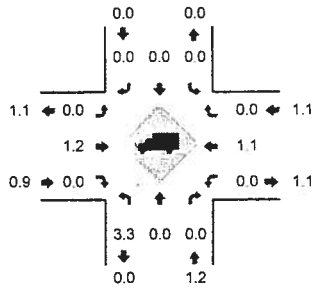
Method for determining peak hour: Total Entering Volume

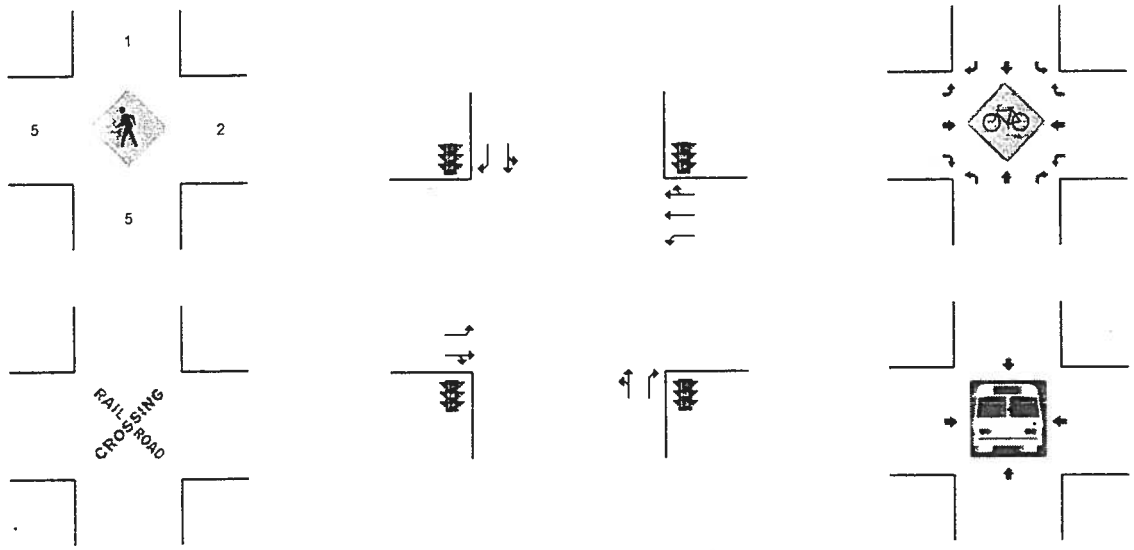
LOCATION: SW 65th Ave -- SW Nyberg St
CITY/STATE: Tualatin, OR

QC JOB #: 10385602
DATE: 9/30/2008



Peak-Hour: 4:35 PM -- 5:35 PM
Peak 15-Min: 5:10 PM -- 5:25 PM





5-Min Count Period Beginning At	SW 65th Ave (Northbound)				SW 65th Ave (Southbound)				SW Nyberg St (Eastbound)				SW Nyberg St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	0	5	0	2	0	11	0	10	55	2	0	1	54	2	0	144	
4:05 PM	4	1	2	0	0	0	5	0	19	50	0	0	6	65	2	0	154	
4:10 PM	1	0	1	0	0	0	11	0	19	56	1	0	3	64	3	0	159	
4:15 PM	0	2	4	0	1	2	7	0	17	72	2	0	2	62	0	0	171	
4:20 PM	2	0	4	0	0	0	16	0	16	69	1	0	2	52	0	0	162	
4:25 PM	0	0	0	0	0	2	13	0	26	66	4	0	1	50	2	0	164	
4:30 PM	3	2	6	0	0	0	11	0	12	55	4	0	2	64	3	0	162	
4:35 PM	1	0	4	0	1	2	6	0	20	64	3	0	4	72	0	0	177	
4:40 PM	3	1	7	0	1	0	14	0	12	53	3	0	3	71	1	0	169	
4:45 PM	3	0	4	0	0	0	6	0	24	66	3	0	3	67	0	0	176	
4:50 PM	3	2	1	0	1	0	12	0	11	70	2	0	2	51	1	0	156	
4:55 PM	0	2	2	0	0	0	7	0	20	54	3	0	2	56	2	0	148	1942
5:00 PM	4	0	5	0	0	2	7	0	19	53	0	0	2	71	2	0	165	1963
5:05 PM	2	0	4	0	0	0	13	0	23	55	2	0	0	72	1	0	172	1981
5:10 PM	6	1	3	0	1	0	8	0	25	55	3	0	3	80	1	0	184	2006
5:15 PM	2	0	2	0	0	0	11	0	26	65	1	0	3	64	2	0	176	2011
5:20 PM	2	0	3	0	0	2	12	0	27	68	2	0	0	61	2	0	179	2028
5:25 PM	2	0	3	0	1	1	7	0	30	76	3	0	1	55	1	0	180	2044
5:30 PM	2	2	7	0	0	2	10	0	17	58	2	0	0	64	0	0	164	2046
5:35 PM	0	3	3	0	0	0	13	0	18	64	2	0	2	61	1	0	167	2036
5:40 PM	2	0	5	0	0	0	10	0	16	46	4	0	2	54	0	0	139	2006
5:45 PM	2	0	4	0	1	0	12	0	24	57	4	0	0	40	1	0	145	1975
5:50 PM	0	1	5	0	0	0	8	0	26	55	3	0	1	51	0	0	150	1969
5:55 PM	3	1	1	0	0	0	8	0	30	55	2	0	2	58	3	0	163	1984

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	40	4	32	0	4	8	116	0	312	752	24	0	24	820	20	0	2156
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	8	0		8
Pedestrians		4				0				8				0			12
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/5/2008 11:09 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

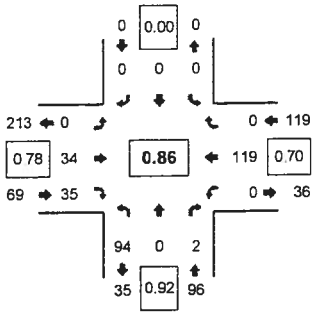
Type of peak hour being reported: Intersection Peak

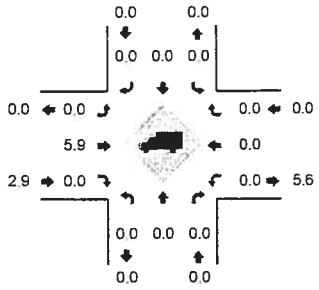
Method for determining peak hour: Total Entering Volume

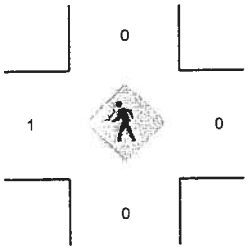
LOCATION: SW 57th Ave -- SW Nyberg Ln
CITY/STATE: Tualatin OR, OR

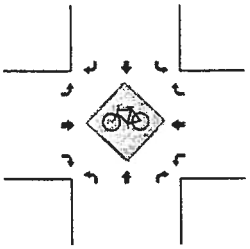
QC JOB #: 10391307
DATE: 10/23/2008

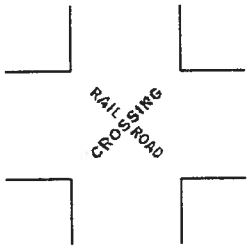
Peak-Hour: 7:10 AM -- 8:10 AM
Peak 15-Min: 7:40 AM -- 7:55 AM

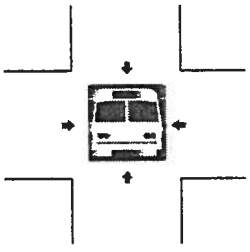












5-Min Count Period Beginning At	SW 57th Ave (Northbound)				SW 57th Ave (Southbound)				SW Nyberg Ln (Eastbound)				SW Nyberg Ln (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	5	0	0	0	0	0	0	0	0	0	2	0	0	10	0	0	17	
7:05 AM	4	0	0	0	0	0	0	0	0	1	1	0	0	6	0	0	12	
7:10 AM	7	0	0	0	0	0	0	0	0	2	2	0	0	10	0	0	21	
7:15 AM	9	0	0	0	0	0	0	0	0	2	2	0	0	9	0	0	22	
7:20 AM	5	0	0	0	0	0	0	0	0	1	0	0	0	13	0	0	19	
7:25 AM	11	0	0	0	0	0	0	0	0	1	3	0	0	15	0	0	30	
7:30 AM	8	0	1	0	0	0	0	0	0	2	4	0	0	15	0	0	30	
7:35 AM	6	0	0	0	0	0	0	0	0	3	2	0	0	4	0	0	15	
7:40 AM	11	0	0	0	0	0	0	0	0	4	5	0	0	13	0	0	33	
7:45 AM	4	0	1	0	0	0	0	0	0	0	4	0	0	10	0	0	19	
7:50 AM	11	0	0	0	0	0	0	0	0	4	7	0	0	9	0	0	31	
7:55 AM	5	0	0	0	0	0	0	0	0	7	0	0	0	6	0	0	18	267
8:00 AM	8	0	0	0	0	0	0	0	0	4	1	0	0	7	0	0	20	270
8:05 AM	9	0	0	0	0	0	0	0	0	4	5	0	0	8	0	0	26	284
8:10 AM	6	0	0	0	0	0	0	0	0	4	3	0	0	4	0	0	17	280
8:15 AM	12	0	0	0	0	0	0	0	0	1	0	0	0	6	0	0	19	277
8:20 AM	10	0	0	0	0	0	0	0	0	4	3	0	0	8	0	0	25	283
8:25 AM	7	0	1	0	0	0	0	0	0	0	2	0	0	8	0	0	18	271
8:30 AM	6	0	0	0	0	0	0	0	0	3	1	0	0	9	0	0	19	260
8:35 AM	7	0	1	0	0	0	0	0	0	2	1	0	1	10	0	0	22	267
8:40 AM	5	0	0	0	0	0	0	0	0	5	1	0	0	4	0	0	15	249
8:45 AM	7	0	0	0	0	0	0	0	0	2	2	0	0	11	0	0	22	252
8:50 AM	5	0	0	0	0	0	0	0	0	2	1	0	0	9	0	0	17	238
8:55 AM	5	0	0	0	0	0	0	0	0	4	2	0	0	7	0	0	18	238

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	104	0	4	0	0	0	0	0	0	32	64	0	0	128	0	0	332
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians		0				0				4				0			4
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/29/2008 10:49 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

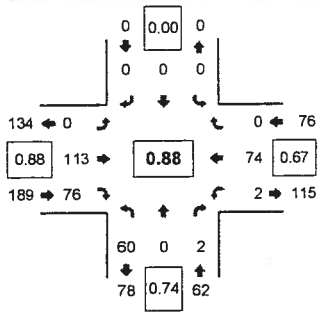
Type of peak hour being reported: Intersection Peak

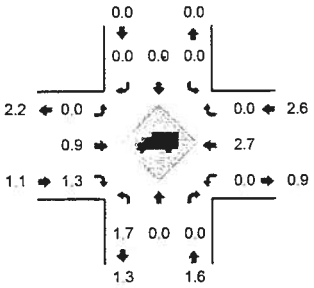
Method for determining peak hour: Total Entering Volume

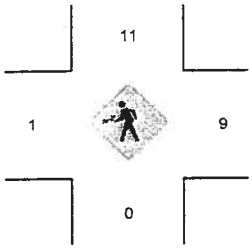
LOCATION: SW 57th Ave -- SW Nyberg Ln
CITY/STATE: Tualatin OR, OR

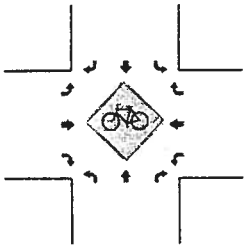
QC JOB #: 10391308
DATE: 10/23/2008

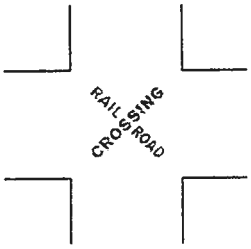
Peak-Hour: 4:35 PM -- 5:35 PM
Peak 15-Min: 4:55 PM -- 5:10 PM

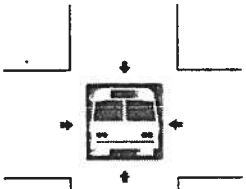












5-Min Count Period Beginning At	SW 57th Ave (Northbound)				SW 57th Ave (Southbound)				SW Nyberg Ln (Eastbound)				SW Nyberg Ln (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	0	0	0	0	0	0	0	0	3	2	0	0	1	0	0	9	
4:05 PM	2	0	1	0	0	0	0	0	0	6	6	0	1	1	0	0	17	
4:10 PM	4	0	0	0	0	0	0	0	0	8	7	0	1	3	0	0	23	
4:15 PM	3	0	0	0	0	0	0	0	0	7	8	0	0	8	0	0	26	
4:20 PM	2	0	0	0	0	0	0	0	0	5	7	0	0	2	0	0	16	
4:25 PM	2	0	1	0	0	0	0	0	0	10	6	0	0	5	0	0	24	
4:30 PM	1	0	0	0	0	0	0	0	0	6	5	1	0	7	0	0	20	
4:35 PM	7	0	0	0	0	0	0	0	0	6	11	0	0	5	0	0	29	
4:40 PM	4	0	0	0	0	0	0	0	0	6	7	0	0	3	0	0	20	
4:45 PM	6	0	0	0	0	0	0	0	0	2	10	0	0	5	0	0	23	
4:50 PM	6	0	1	0	0	0	0	0	0	8	6	0	0	3	0	0	24	
4:55 PM	4	0	0	0	0	0	0	0	0	14	5	0	0	10	0	0	33	264
5:00 PM	0	0	0	0	0	0	0	0	0	12	8	0	2	8	0	0	30	285
5:05 PM	5	0	0	0	0	0	0	0	0	11	6	0	0	8	0	0	30	298
5:10 PM	4	0	0	0	0	0	0	0	0	7	7	0	0	12	0	0	30	305
5:15 PM	4	0	0	0	0	0	0	0	0	8	5	0	0	4	0	0	21	300
5:20 PM	7	0	0	0	0	0	0	0	0	13	3	0	0	7	0	0	30	314
5:25 PM	9	0	1	0	0	0	0	0	0	10	3	0	0	6	0	0	29	319
5:30 PM	4	0	0	0	0	0	0	0	0	16	5	0	0	3	0	0	28	327
5:35 PM	0	0	0	0	0	0	0	0	0	7	10	0	0	3	0	0	20	318
5:40 PM	2	0	0	0	0	0	0	0	0	11	7	0	0	6	0	0	26	324
5:45 PM	3	0	0	0	0	0	0	0	0	8	6	0	0	3	0	0	20	321
5:50 PM	4	0	0	0	0	0	0	0	0	4	8	0	0	3	0	0	19	316
5:55 PM	5	0	0	0	0	0	0	0	0	8	9	0	0	9	0	0	31	314

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	36	0	0	0	0	0	0	0	0	148	76	0	8	104	0	0	372
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	4	0		4
Pedestrians		0				24				0				12			36
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/29/2008 10:49 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

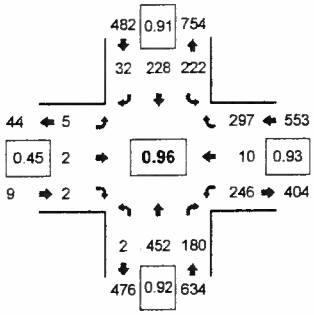
Type of peak hour being reported: Intersection Peak

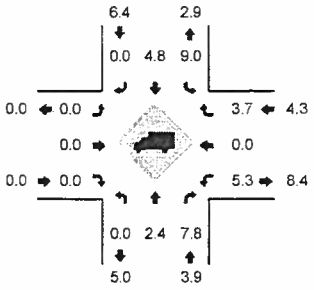
Method for determining peak hour: Total Entering Volume

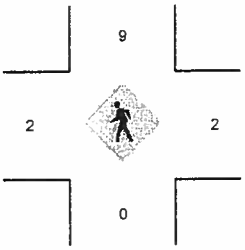
LOCATION: SW 65th Ave -- SW Borland Rd
CITY/STATE: Tualatin OR, OR

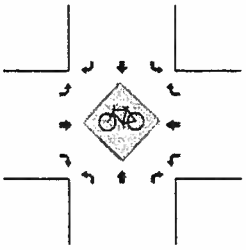
QC JOB #: 10391301
DATE: 10/23/2008

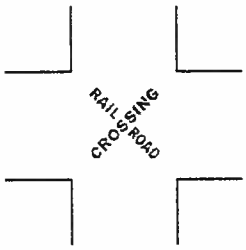
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

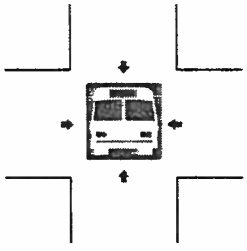












5-Min Count Period Beginning At	SW 65th Ave (Northbound)				SW 65th Ave (Southbound)				SW Borland Rd (Eastbound)				SW Borland Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	25	11	0	12	14	2	0	1	0	0	0	16	0	18	0	99	
7:05 AM	0	28	6	0	5	7	1	0	0	0	0	0	9	1	15	0	72	
7:10 AM	0	39	8	0	6	5	0	0	0	0	0	0	14	1	13	0	86	
7:15 AM	0	19	6	0	10	14	0	0	0	0	0	0	13	0	22	0	84	
7:20 AM	0	31	12	0	10	15	0	0	0	0	0	0	16	1	29	0	114	
7:25 AM	0	40	13	0	12	23	2	0	0	0	0	0	11	0	18	0	119	
7:30 AM	0	42	9	0	16	12	4	0	0	0	0	0	23	0	13	0	119	
7:35 AM	0	40	11	0	12	18	2	0	0	0	0	0	33	0	18	0	134	
7:40 AM	0	34	11	0	20	23	0	0	0	0	0	0	18	2	22	0	130	
7:45 AM	0	35	15	0	13	14	0	0	0	0	0	0	23	2	31	0	133	
7:50 AM	0	40	9	0	29	24	6	0	0	0	0	0	14	0	26	0	148	
7:55 AM	0	43	17	0	15	14	2	0	1	0	0	0	21	2	21	0	136	1374
8:00 AM	0	37	22	0	21	16	1	0	0	0	0	0	19	0	34	0	150	1425
8:05 AM	1	22	18	0	22	19	2	0	0	0	0	0	19	1	32	0	136	1489
8:10 AM	1	40	18	0	21	24	6	0	1	0	0	0	22	2	17	0	152	1555
8:15 AM	0	42	17	0	16	21	3	0	2	0	1	0	16	0	23	0	141	1612
8:20 AM	0	39	16	0	18	18	2	0	0	0	0	0	21	1	26	0	141	1639
8:25 AM	0	46	14	0	17	26	5	0	1	2	1	0	19	0	17	0	148	1668
8:30 AM	0	34	12	0	18	11	3	0	0	0	0	0	21	0	30	0	129	1678
8:35 AM	0	25	8	0	18	18	3	0	0	0	0	0	10	0	24	0	106	1650
8:40 AM	0	21	8	0	11	8	1	0	0	0	0	0	13	0	14	0	76	1596
8:45 AM	1	22	8	0	8	17	4	0	2	0	0	0	10	0	23	0	95	1558
8:50 AM	1	29	14	0	8	14	4	0	3	1	0	0	18	1	24	0	117	1527
8:55 AM	0	26	9	0	11	25	1	0	4	0	0	0	5	2	28	0	111	1502

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	396	232	0	256	236	36	0	4	0	0	0	240	12	332	0	1752
Heavy Trucks	0	20	24		28	8	0		0	0	0		12	0	12		104
Pedestrians		0				4				0				0			4
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/29/2008 10:49 AM

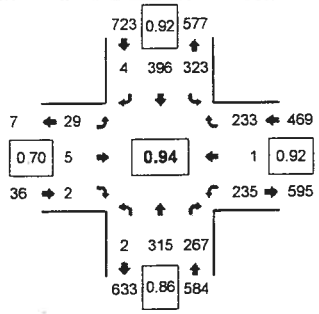
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

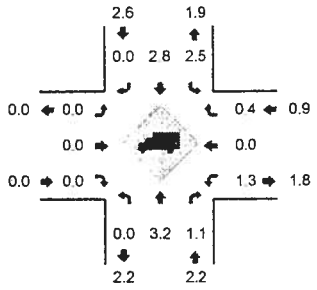
Method for determining peak hour: Total Entering Volume

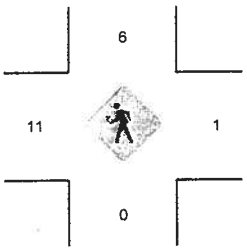
LOCATION: SW 65th Ave -- SW Borland Rd
CITY/STATE: Tualatin OR, OR

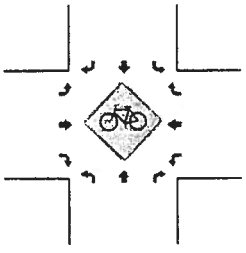
QC JOB #: 10391302
DATE: 10/23/2008

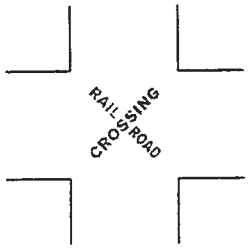


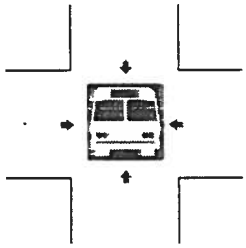
Peak-Hour: 4:35 PM -- 5:35 PM
Peak 15-Min: 5:10 PM -- 5:25 PM











5-Min Count Period	SW 65th Ave (Northbound)				SW 65th Ave (Southbound)				SW Borland Rd (Eastbound)				SW Borland Rd (Westbound)				Total	Hourly Totals
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	22	11	0	22	26	0	0	0	0	2	0	21	0	19	0	123	
4:05 PM	0	23	28	0	33	28	1	0	0	0	0	0	21	0	20	0	154	
4:10 PM	0	16	20	0	22	18	1	0	1	2	0	0	7	0	21	0	108	
4:15 PM	1	13	21	0	19	24	1	0	1	0	1	0	15	1	19	0	116	
4:20 PM	0	28	11	0	33	32	0	0	3	0	1	0	12	0	21	0	141	
4:25 PM	0	18	14	0	25	32	0	0	2	0	1	0	7	1	17	0	117	
4:30 PM	0	20	15	0	21	33	0	0	4	0	1	0	20	0	23	0	137	
4:35 PM	0	27	20	0	21	30	0	0	1	0	0	0	21	0	29	0	149	
4:40 PM	0	24	19	0	30	24	0	0	3	0	0	0	12	0	17	0	129	
4:45 PM	1	15	22	0	28	29	0	0	3	1	0	0	20	0	25	0	144	
4:50 PM	1	26	21	0	28	45	1	0	3	0	0	0	17	0	22	0	164	
4:55 PM	0	31	15	0	27	25	0	0	2	0	0	0	18	1	14	0	133	1615
5:00 PM	0	19	21	0	27	32	1	0	2	0	0	0	20	0	25	0	147	1639
5:05 PM	0	31	20	0	26	30	1	0	3	0	0	0	27	0	14	0	152	1637
5:10 PM	0	23	28	0	14	35	0	0	7	2	1	0	26	0	15	0	151	1680
5:15 PM	0	34	23	0	34	45	0	0	0	0	0	0	15	0	14	0	185	1729
5:20 PM	0	26	24	0	33	39	1	0	3	0	1	0	16	0	22	0	165	1753
5:25 PM	0	29	34	0	23	25	0	0	1	1	0	0	21	0	15	0	149	1785
5:30 PM	0	30	20	0	32	37	0	0	1	1	0	0	22	0	21	0	164	1812
5:35 PM	0	22	12	0	27	35	0	0	0	0	0	0	20	0	16	0	132	1795
5:40 PM	0	25	22	0	20	28	0	0	1	1	0	0	16	0	15	0	128	1794
5:45 PM	0	30	14	0	32	34	0	0	0	1	0	0	14	0	7	0	132	1782
5:50 PM	0	16	24	0	36	27	0	0	0	1	1	0	12	0	10	0	127	1745
5:55 PM	0	17	20	0	25	36	0	0	0	0	0	0	20	0	21	0	139	1751

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	332	300	0	324	476	4	0	40	8	8	0	228	0	204	0	1924
Heavy Trucks	0	16	0		8	8	0		0	0	0		0	0	0		32
Pedestrians		0				0				16				0			16
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/29/2008 10:49 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

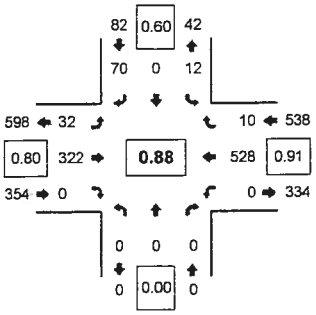
Type of peak hour being reported: Intersection Peak

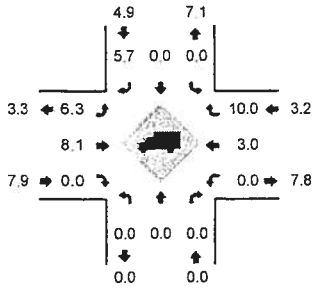
Method for determining peak hour: Total Entering Volume

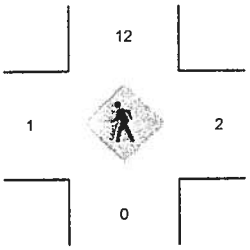
LOCATION: SW 57th Ave -- SW Borland Rd
CITY/STATE: Tualatin OR, OR

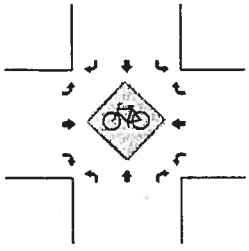
QC JOB #: 10391303
DATE: 10/23/2008

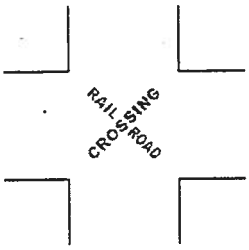
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

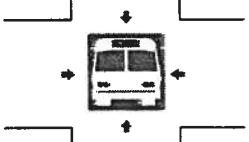












5-Min Count Period Beginning At	SW 57th Ave (Northbound)				SW 57th Ave (Southbound)				SW Borland Rd (Eastbound)				SW Borland Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	1	0	6	0	1	14	0	0	0	21	0	0	43	
7:05 AM	0	0	0	0	2	0	0	0	1	10	0	0	0	24	0	0	37	
7:10 AM	0	0	0	0	2	0	6	0	1	9	0	0	0	22	0	0	40	
7:15 AM	0	0	0	0	0	0	3	0	0	19	0	0	0	25	0	0	47	
7:20 AM	0	0	0	0	0	0	2	0	3	19	0	0	0	45	0	0	69	
7:25 AM	0	0	0	0	0	0	3	0	1	16	0	0	0	27	1	0	48	
7:30 AM	0	0	0	0	0	0	9	0	0	22	0	0	0	25	0	0	56	
7:35 AM	0	0	0	0	0	0	9	0	1	18	0	0	0	40	0	0	68	
7:40 AM	0	0	0	0	1	0	3	0	1	25	0	0	0	38	1	0	69	
7:45 AM	0	0	0	0	0	0	4	0	3	24	0	0	0	51	1	0	83	
7:50 AM	0	0	0	0	1	0	3	0	1	28	0	0	0	52	0	0	85	
7:55 AM	0	0	0	0	1	0	5	0	5	28	0	0	0	44	0	0	83	728
8:00 AM	0	0	0	0	1	0	3	0	4	35	0	0	0	47	0	0	90	775
8:05 AM	0	0	0	0	1	0	12	0	7	32	0	0	0	45	0	0	97	835
8:10 AM	0	0	0	0	2	0	11	0	5	29	0	0	0	40	2	0	89	884
8:15 AM	0	0	0	0	1	0	9	0	1	35	0	0	0	38	4	0	88	925
8:20 AM	0	0	0	0	1	0	5	0	3	19	0	0	0	48	0	0	76	932
8:25 AM	0	0	0	0	2	0	2	0	0	22	0	0	0	43	1	0	70	954
8:30 AM	0	0	0	0	1	0	4	0	1	27	0	0	0	42	1	0	76	974
8:35 AM	0	0	0	0	2	0	0	0	2	23	0	0	0	28	0	0	55	961
8:40 AM	0	0	0	0	0	0	1	0	0	14	0	0	0	36	0	0	51	943
8:45 AM	0	0	0	0	1	0	3	0	1	9	0	0	0	32	0	0	46	906
8:50 AM	0	0	0	0	2	0	1	0	1	20	0	0	0	43	0	0	67	888
8:55 AM	0	0	0	0	0	0	0	0	2	14	0	0	0	30	0	0	46	851

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	16	0	104	0	64	384	0	0	0	528	8	0	1104
Heavy Trucks	0	0	0		0	0	4		0	40	0		0	20	0		64
Pedestrians		0				8				0				0			8
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/29/2008 10:49 AM

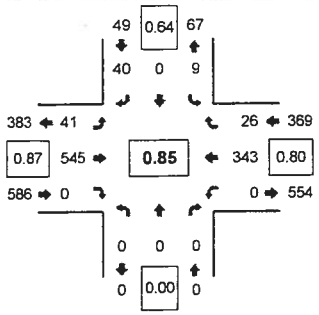
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

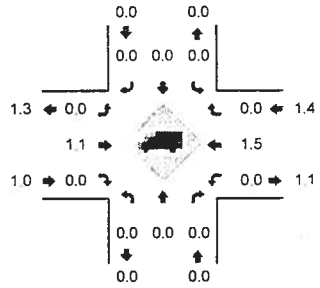
Method for determining peak hour: Total Entering Volume

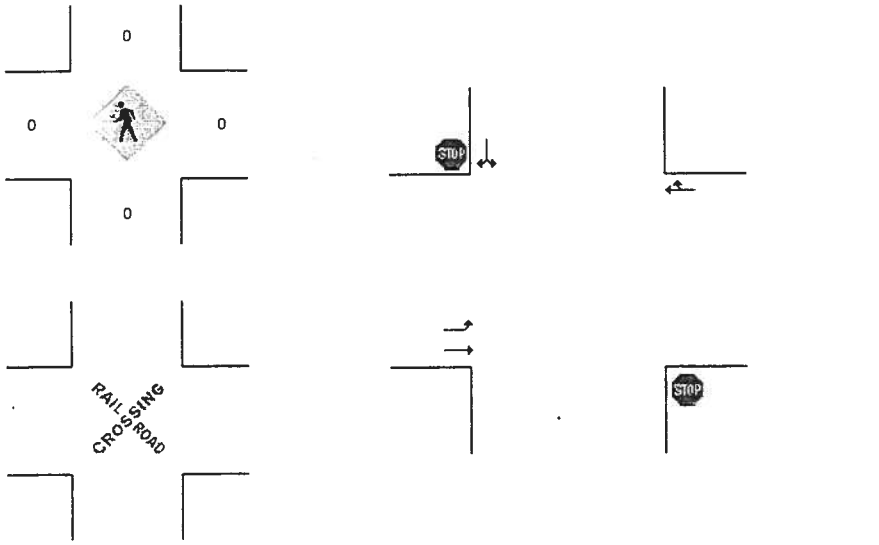
LOCATION: SW 57th Ave -- SW Borland Rd
CITY/STATE: Tualatin OR, OR

QC JOB #: 10391304
DATE: 10/23/2008



Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:20 PM -- 5:35 PM





5-Min Count Period	SW 57th Ave (Northbound)				SW 57th Ave (Southbound)				SW Borland Rd (Eastbound)				SW Borland Rd (Westbound)				Total	Hourly Totals
Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	1	0	2	0	3	29	0	0	0	28	3	0	66	
4:05 PM	0	0	0	0	0	0	3	0	3	51	0	0	0	31	0	0	88	
4:10 PM	0	0	0	0	0	0	1	0	2	35	0	0	0	26	0	0	64	
4:15 PM	0	0	0	0	1	0	2	0	3	39	0	0	0	32	0	0	77	
4:20 PM	0	0	0	0	1	0	0	0	2	42	0	0	0	22	0	0	67	
4:25 PM	0	0	0	0	0	0	0	0	5	36	0	0	0	23	0	0	64	
4:30 PM	0	0	0	0	1	0	1	0	2	34	0	0	0	31	2	0	71	
4:35 PM	0	0	0	0	1	0	3	0	3	36	0	0	0	30	0	0	73	
4:40 PM	0	0	0	0	0	0	2	0	3	42	0	0	0	18	0	0	65	
4:45 PM	0	0	0	0	1	0	7	0	4	39	0	0	0	29	1	0	81	
4:50 PM	0	0	0	0	0	0	2	0	6	44	0	0	0	38	4	0	94	
4:55 PM	0	0	0	0	1	0	3	0	2	39	0	0	0	20	1	0	66	876
5:00 PM	0	0	0	0	2	0	7	0	3	36	0	0	0	34	1	0	83	893
5:05 PM	0	0	0	0	0	0	4	0	5	53	0	0	0	21	2	0	85	890
5:10 PM	0	0	0	0	1	0	7	0	0	46	0	0	0	27	1	0	82	908
5:15 PM	0	0	0	0	0	0	2	0	1	53	0	0	0	15	2	0	73	904
5:20 PM	0	0	0	0	3	0	8	0	2	58	0	0	0	40	1	0	102	939
5:25 PM	0	0	0	0	0	0	2	0	8	53	0	0	0	24	4	0	91	966
5:30 PM	0	0	0	0	0	0	3	0	3	50	0	0	0	41	5	0	102	997
5:35 PM	0	0	0	0	0	0	0	0	3	37	0	0	0	25	2	0	67	991
5:40 PM	0	0	0	0	1	0	0	0	4	42	0	0	0	29	2	0	78	1004
5:45 PM	0	0	0	0	0	0	1	0	2	34	0	0	0	19	1	0	57	980
5:50 PM	0	0	0	0	0	0	4	0	6	55	0	0	0	14	0	0	79	965
5:55 PM	0	0	0	0	1	0	0	0	8	33	0	0	0	32	1	0	75	974

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	12	0	32	0	52	624	0	0	0	420	40	0	1180
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	8	0		8
Pedestrians		0				0				0				0			0
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/29/2008 10:49 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

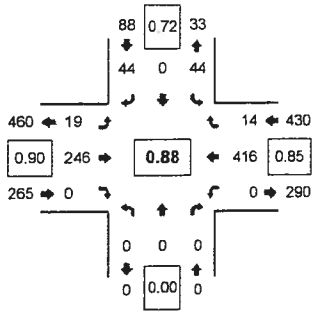
Method for determining peak hour: Total Entering Volume

LOCATION: SW 50th Ave/SW Wilke Rd -- SW Borland Rd

QC JOB #: 10391305

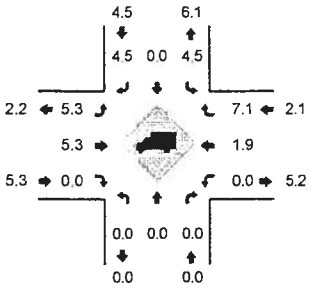
CITY/STATE: Tualatin OR, OR

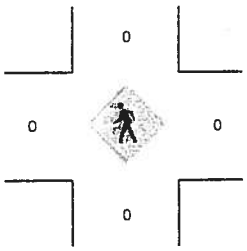
DATE: 10/23/2008

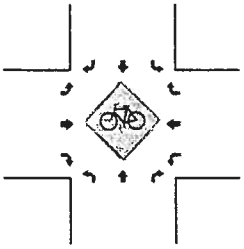


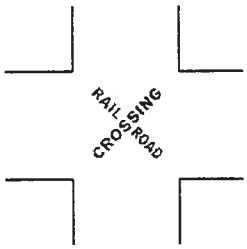
Peak-Hour: 7:35 AM -- 8:35 AM

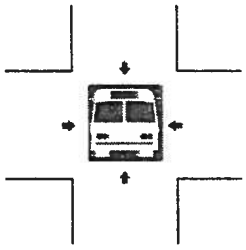
Peak 15-Min: 7:40 AM -- 7:55 AM











5-Min Count Period Beginning At	SW 50th Ave/SW Wilke Rd (Northbound)				SW 50th Ave/SW Wilke Rd (Southbound)				SW Borland Rd (Eastbound)				SW Borland Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	5	0	0	0	1	18	0	0	0	19	0	0	43	
7:05 AM	0	0	0	0	3	0	1	0	0	8	0	0	0	18	0	0	30	
7:10 AM	0	0	0	0	3	0	1	0	1	11	0	0	0	22	2	0	40	
7:15 AM	0	0	0	0	1	0	1	0	1	11	0	0	0	23	0	0	37	
7:20 AM	0	0	0	0	3	0	1	0	0	15	0	0	0	35	1	0	55	
7:25 AM	0	0	0	0	4	0	3	0	3	12	0	0	0	25	0	0	47	
7:30 AM	0	0	0	0	3	0	7	0	0	21	0	0	0	22	1	0	54	
7:35 AM	0	0	0	0	3	0	7	0	0	18	0	0	0	28	0	0	56	
7:40 AM	0	0	0	0	4	0	2	0	0	22	0	0	0	40	1	0	69	
7:45 AM	0	0	0	0	2	0	6	0	1	20	0	0	0	41	1	0	71	
7:50 AM	0	0	0	0	9	0	8	0	1	20	0	0	0	41	3	0	82	
7:55 AM	0	0	0	0	3	0	4	0	0	15	0	0	0	39	2	0	63	647
8:00 AM	0	0	0	0	5	0	1	0	4	25	0	0	0	32	2	0	69	673
8:05 AM	0	0	0	0	5	0	1	0	2	20	0	0	0	35	0	0	63	706
8:10 AM	0	0	0	0	4	0	3	0	2	19	0	0	0	27	1	0	56	722
8:15 AM	0	0	0	0	1	0	2	0	0	33	0	0	0	29	1	0	66	751
8:20 AM	0	0	0	0	2	0	3	0	2	14	0	0	0	41	1	0	63	759
8:25 AM	0	0	0	0	3	0	4	0	3	21	0	0	0	35	1	0	67	779
8:30 AM	0	0	0	0	3	0	3	0	4	19	0	0	0	28	1	0	58	783
8:35 AM	0	0	0	0	1	0	1	0	3	24	0	0	0	25	1	0	55	782
8:40 AM	0	0	0	0	3	0	1	0	0	9	0	0	0	30	1	0	44	757
8:45 AM	0	0	0	0	3	0	2	0	0	12	0	0	0	28	0	0	45	731
8:50 AM	0	0	0	0	5	0	3	0	3	15	0	0	0	35	1	0	62	711
8:55 AM	0	0	0	0	5	0	0	0	2	15	0	0	0	27	2	0	51	699

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	60	0	64	0	8	248	0	0	0	488	20	0	888
Heavy Trucks	0	0	0		0	0	4		0	0	0		0	0	4		8
Pedestrians		0				0				0				0			0
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/29/2008 10:49 AM

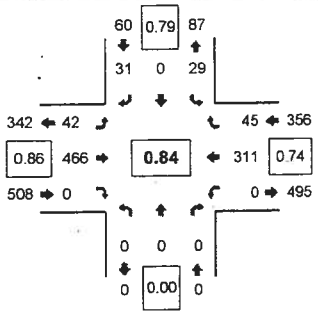
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

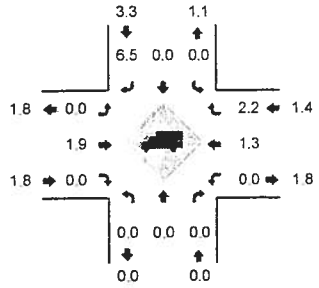
Method for determining peak hour: Total Entering Volume

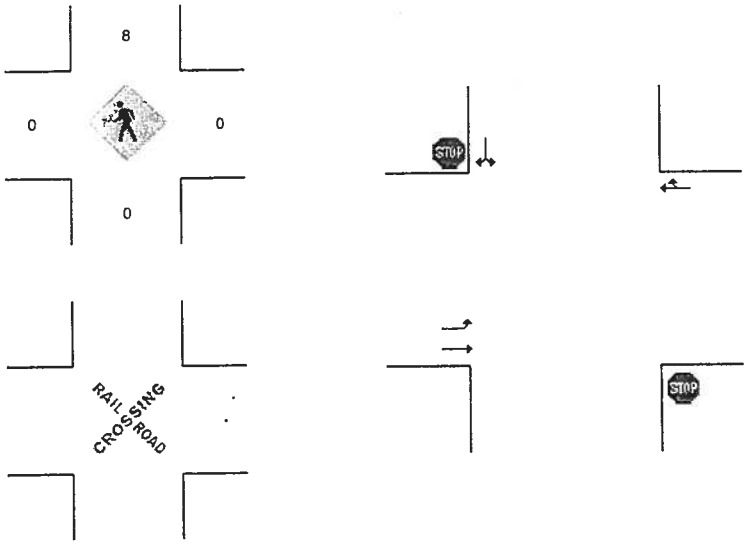
LOCATION: SW 50th Ave/SW Wilke Rd -- SW Borland Rd
CITY/STATE: Tualatin OR, OR

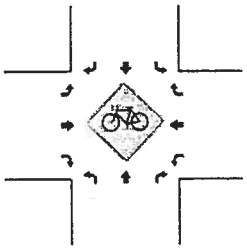
QC JOB #: 10391306
DATE: 10/23/2008

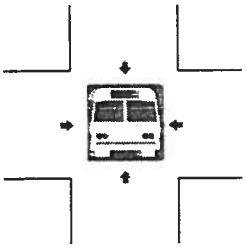


Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:20 PM -- 5:35 PM









5-Min Count Period Beginning At	SW 50th Ave/SW Wilke Rd (Northbound)				SW 50th Ave/SW Wilke Rd (Southbound)				SW Borland Rd (Eastbound)				SW Borland Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	3	0	1	23	0	0	0	24	4	0	55	
4:05 PM	0	0	0	0	3	0	4	0	5	39	0	0	0	23	2	0	76	
4:10 PM	0	0	0	0	1	0	1	0	0	40	0	0	0	28	4	0	74	
4:15 PM	0	0	0	0	2	0	2	0	2	32	0	0	0	27	2	0	67	
4:20 PM	0	0	0	0	2	0	2	0	3	45	0	0	0	17	1	0	70	
4:25 PM	0	0	0	0	5	0	2	0	4	32	0	0	0	24	2	0	69	
4:30 PM	0	0	0	0	1	0	0	0	1	28	0	0	0	30	2	0	62	
4:35 PM	0	0	0	0	3	0	1	0	2	36	0	0	0	24	5	0	71	
4:40 PM	0	0	0	0	2	0	0	0	3	36	0	0	0	18	1	0	60	
4:45 PM	0	0	0	0	8	0	2	0	4	33	0	0	0	33	3	0	83	
4:50 PM	0	0	0	0	4	0	1	0	1	41	0	0	0	29	4	0	80	
4:55 PM	0	0	0	0	1	0	0	0	0	38	0	0	0	23	9	0	71	838
5:00 PM	0	0	0	0	5	0	2	0	1	31	0	0	0	25	4	0	68	851
5:05 PM	0	0	0	0	1	0	5	0	4	41	0	0	0	21	6	0	78	853
5:10 PM	0	0	0	0	1	0	4	0	4	41	0	0	0	22	2	0	74	853
5:15 PM	0	0	0	0	1	0	2	0	4	44	0	0	0	7	0	0	58	844
5:20 PM	0	0	0	0	0	0	1	0	7	44	0	0	0	44	7	0	103	877
5:25 PM	0	0	0	0	0	0	5	0	5	47	0	0	0	24	3	0	85	893
5:30 PM	0	0	0	0	4	0	2	0	5	33	0	0	0	38	4	0	86	917
5:35 PM	0	0	0	0	2	0	5	0	4	35	0	0	0	20	2	0	68	914
5:40 PM	0	0	0	0	2	0	1	0	3	38	0	0	0	25	1	0	70	924
5:45 PM	0	0	0	0	2	0	1	0	3	31	0	0	0	19	2	0	58	899
5:50 PM	0	0	0	0	1	0	1	0	3	51	0	0	0	20	3	0	79	898
5:55 PM	0	0	0	0	3	0	1	0	7	29	0	0	0	27	7	0	74	901

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	16	0	36	0	68	496	0	0	0	424	56	0	1096
Heavy Trucks	0	0	0		0	0	4		0	8	0		0	4	4		20
Pedestrians		0				4				0				0			4
Bicycles																	
Railroad																	
Stopped Buses																	

Comments:

Report generated on 10/29/2008 10:49 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Appendix B
Description of Level-of-Service Methods and Criteria

Appendix B Level-of-Service Concept

Level of service (LOS) is a concept developed to quantify the degree of comfort (including such elements as travel time, number of stops, total amount of stopped delay, and impediments caused by other vehicles) afforded to drivers as they travel through an intersection or roadway segment. Six grades are used to denote the various level of service from "A" to "F".[1]

SIGNALIZED INTERSECTIONS

The six level-of-service grades are described qualitatively for signalized intersections in Table B-1. Additionally, Table B-2 identifies the relationship between level of service and average control delay per vehicle. Control delay is defined to include initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Using this definition, Level of Service "D" is generally considered to represent the minimum acceptable design standard.

Table B-1 Level-of-Service Definitions (Signalized Intersections)

Level of Service	Average Delay per Vehicle
A	Very low average control delay, less than 10 seconds per vehicle. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	Average control delay is greater than 10 seconds per vehicle and less than or equal to 20 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for a level of service A, causing higher levels of average delay.
C	Average control delay is greater than 20 seconds per vehicle and less than or equal to 35 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
D	Average control delay is greater than 35 seconds per vehicle and less than or equal to 55 seconds per vehicle. The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle length, or high volume/capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Average control delay is greater than 55 seconds per vehicle and less than or equal to 80 seconds per vehicle. This is usually considered to be the limit of acceptable delay. These high delay values generally (but not always) indicate poor progression, long cycle lengths, and high volume/capacity ratios. Individual cycle failures are frequent occurrences.
F	Average control delay is in excess of 80 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation. It may also occur at high volume/capacity ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also contribute to such high delay values.

1 Most of the material in this appendix is adapted from the Transportation Research Board, Highway Capacity Manual, (2000).

Table B-2 Level-of-Service Criteria for Signalized Intersections

Level of Service	Average Control Delay per Vehicle (Seconds)
A	<10.0
B	>10 and ≤20
C	>20 and ≤35
D	>35 and ≤55
E	>55 and ≤80
F	>80

UNSIGNALIZED INTERSECTIONS

Unsignalized intersections include two-way stop-controlled (TWSC) and all-way stop-controlled (AWSC) intersections. The 2000 Highway Capacity Manual (HCM) provides models for estimating control delay at both TWSC and AWSC intersections. A qualitative description of the various service levels associated with an unsignalized intersection is presented in Table B-3. A quantitative definition of level of service for unsignalized intersections is presented in Table B-4. Using this definition, Level of Service "E" is generally considered to represent the minimum acceptable design standard.

Table B-3 Level-of-Service Criteria for Unsignalized Intersections

Level of Service	Average Delay per Vehicle to Minor Street
A	• Nearly all drivers find freedom of operation. • Very seldom is there more than one vehicle in queue.
B	• Some drivers begin to consider the delay an inconvenience. • Occasionally there is more than one vehicle in queue.
C	• Many times there is more than one vehicle in queue. • Most drivers feel restricted, but not objectionably so.
D	• Often there is more than one vehicle in queue. • Drivers feel quite restricted.
E	• Represents a condition in which the demand is near or equal to the probable maximum number of vehicles that can be accommodated by the movement. • There is almost always more than one vehicle in queue. • Drivers find the delays approaching intolerable levels.
F	• Forced flow. • Represents an intersection failure condition that is caused by geometric and/or operational constraints external to the intersection.

Table B-4 Level-of-Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay per Vehicle (Seconds)
A	<10.0
B	>10.0 and ≤ 15.0
C	>15.0 and ≤ 25.0
D	>25.0 and ≤ 35.0
E	>35.0 and ≤ 50.0
F	>50.0

It should be noted that the level-of-service criteria for unsignalized intersections are somewhat different than the criteria used for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection. Additionally, there are a number of driver behavior considerations that combine to make delays at signalized intersections less galling than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, while drivers on the minor street approaches to TWSC intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized intersections than signalized intersections. For these reasons, it is considered that the control delay threshold for any given level of service is less for an unsignalized intersection than for a signalized intersection. While overall intersection level of service is calculated for AWSC intersections, level of service is only calculated for the minor approaches and the major street left turn movements at TWSC intersections. No delay is assumed to the major street through movements. For TWSC intersections, the overall intersection level of service remains undefined: level of service is only calculated for each minor street lane.

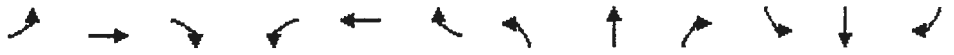
In the performance evaluation of TWSC intersections, it is important to consider other measures of effectiveness (MOEs) in addition to delay, such as v/c ratios for individual movements, average queue lengths, and 95th-percentile queue lengths. By focusing on a single MOE for the worst movement only, such as delay for the minor-street left turn, users may make inappropriate traffic control decisions. The potential for making such inappropriate decisions is likely to be particularly pronounced when the HCM level-of-service thresholds are adopted as legal standards, as is the case in many public agencies.

Appendix C
Year 2008 Existing Conditions Level-of-Service Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑					↰	↰	↱↱
Volume (vph)	0	1348	612	114	1148	0	0	0	0	436	0	925
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4715	1380	1752	3343					1665	1665	2632
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4715	1380	1752	3343					1665	1665	2632
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1465	665	124	1248	0	0	0	0	474	0	1005
RTOR Reduction (vph)	0	0	352	0	0	0	0	0	0	0	0	294
Lane Group Flow (vph)	0	1465	313	124	1248	0	0	0	0	237	237	711
Heavy Vehicles (%)	2%	10%	17%	3%	8%	2%	2%	2%	2%	3%	2%	8%
Turn Type			Perm	Prot						Split		custom
Protected Phases		2		1	6					4	4	4 5
Permitted Phases			2									
Actuated Green, G (s)		44.7	44.7	11.4	47.3					26.9	26.9	39.7
Effective Green, g (s)		44.7	44.7	11.4	47.3					26.9	26.9	39.7
Actuated g/C Ratio		0.47	0.47	0.12	0.50					0.28	0.28	0.42
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	
Vehicle Extension (s)		5.0	5.0	5.0	4.0					3.0	3.0	
Lane Grp Cap (vph)		2219	649	210	1664					471	471	1100
v/s Ratio Prot		0.31		0.07	c0.37					0.14	0.14	c0.27
v/s Ratio Perm			0.23									
v/c Ratio		0.66	0.48	0.59	0.75					0.50	0.50	0.65
Uniform Delay, d1		19.3	17.2	39.6	19.1					28.5	28.5	22.1
Progression Factor		1.00	1.00	1.34	0.66					1.00	1.00	1.00
Incremental Delay, d2		1.6	2.6	5.9	2.9					0.8	0.8	1.3
Delay (s)		20.9	19.8	58.8	15.4					29.3	29.3	23.4
Level of Service		C	B	E	B					C	C	C
Approach Delay (s)		20.5			19.3			0.0			25.3	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM Average Control Delay	21.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱↱		↑↑	↱	↰	↕	↱			
Volume (vph)	0	741	1043	0	400	851	862	6	193	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.5	4.0	4.0	4.0	4.0			
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00			
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85			
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)		3471	2561		3471	1568	1559	1565	1553			
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)		3471	2561		3471	1568	1559	1565	1553			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	780	1098	0	421	896	907	6	203	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	57	0	0	0
Lane Group Flow (vph)	0	780	1098	0	421	896	453	460	146	0	0	0
Heavy Vehicles (%)	2%	4%	11%	2%	4%	3%	10%	2%	4%	2%	2%	2%
Turn Type			Free			Free	Split		Perm			
Protected Phases		2			6		8	8				
Permitted Phases			Free			Free			8			
Actuated Green, G (s)		50.7	95.0		50.2	95.0	36.3	36.3	36.3			
Effective Green, g (s)		50.7	95.0		50.2	95.0	36.3	36.3	36.3			
Actuated g/C Ratio		0.53	1.00		0.53	1.00	0.38	0.38	0.38			
Clearance Time (s)		4.0			4.5		4.0	4.0	4.0			
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)		1852	2561		1834	1568	596	598	593			
v/s Ratio Prot		0.22			0.12		0.29	c0.29				
v/s Ratio Perm			0.43			c0.57			0.09			
v/c Ratio		0.42	0.43		0.23	0.57	0.76	0.77	0.25			
Uniform Delay, d1		13.3	0.0		12.0	0.0	25.6	25.7	20.0			
Progression Factor		0.46	1.00		1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2		0.5	0.4		0.3	1.5	5.7	5.9	0.2			
Delay (s)		6.7	0.4		12.3	1.5	31.2	31.6	20.2			
Level of Service		A	A		B	A	C	C	C			
Approach Delay (s)		3.0			5.0			29.4			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	134	780	21	20	1115	61	99	2	3	36	4	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	0.97	0.95		1.00	*0.75			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.96	1.00
Satd. Flow (prot)	3433	3427		1570	2747			1664	1214		1782	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.70	1.00		0.67	1.00
Satd. Flow (perm)	3433	3427		1570	2747			1222	1214		1255	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	138	804	22	21	1149	63	102	2	3	37	4	35
RTOR Reduction (vph)	0	1	0	0	2	0	0	0	3	0	0	30
Lane Group Flow (vph)	138	825	0	21	1210	0	0	104	0	0	41	5
Heavy Vehicles (%)	2%	5%	2%	15%	3%	2%	9%	2%	33%	2%	2%	2%
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	8.6	49.9		2.9	44.2			13.0	13.0		13.0	13.0
Effective Green, g (s)	8.6	49.9		2.9	44.2			13.0	13.0		13.0	13.0
Actuated g/C Ratio	0.10	0.60		0.03	0.53			0.16	0.16		0.16	0.16
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	352	2041		54	1449			190	188		195	246
v/s Ratio Prot	c0.04	c0.24		0.01	c0.44							
v/s Ratio Perm								c0.09	0.00		0.03	0.00
v/c Ratio	0.39	0.40		0.39	0.83			0.55	0.00		0.21	0.02
Uniform Delay, d1	35.2	9.0		39.6	16.7			32.7	29.9		30.9	30.0
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.7	0.1		4.6	4.3			3.2	0.0		0.5	0.0
Delay (s)	35.9	9.2		44.2	21.0			35.9	29.9		31.5	30.0
Level of Service	D	A		D	C			D	C		C	C
Approach Delay (s)		13.0			21.4			35.7			30.8	
Approach LOS		B			C			D			C	

Intersection Summary			
HCM Average Control Delay	19.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80 0.73		
Actuated Cycle Length (s)	83.8	Sum of lost time (s)	24.0 18
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	649	21	14	769	2	32	4	38	11	4	275
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.96	1.00
Satd. Flow (prot)	1671	1832		1687	3470			1768	1429		1711	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.74	1.00		0.76	1.00
Satd. Flow (perm)	1671	1832		1687	3470			1363	1429		1348	1583
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	77	662	21	14	785	2	33	4	39	11	4	281
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	34	0	0	84
Lane Group Flow (vph)	77	682	0	14	787	0	0	37	5	0	15	197
Heavy Vehicles (%)	8%	3%	10%	7%	4%	2%	3%	2%	13%	9%	2%	2%
Turn Type	Prot			Prot			Perm		Perm	Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8		8	4		4
Actuated Green, G (s)	7.9	31.2		0.9	24.2			7.1	7.1		7.1	15.0
Effective Green, g (s)	7.9	31.2		0.9	24.2			7.1	7.1		7.1	15.0
Actuated g/C Ratio	0.14	0.55		0.02	0.42			0.12	0.12		0.12	0.26
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	2.4	2.5		2.6	2.5			1.6	1.6		1.6	2.4
Lane Grp Cap (vph)	231	999		27	1468			169	177		167	581
v/s Ratio Prot	0.05	c0.37		0.01	0.23							c0.05
v/s Ratio Perm								0.03	0.00		0.01	0.08
v/c Ratio	0.33	0.68		0.52	0.54			0.22	0.03		0.09	0.34
Uniform Delay, d1	22.3	9.4		27.9	12.3			22.6	22.0		22.2	17.1
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.6	1.8		12.7	0.3			0.2	0.0		0.1	0.2
Delay (s)	22.8	11.2		40.7	12.6			22.8	22.0		22.3	17.3
Level of Service	C	B		D	B			C	C		C	B
Approach Delay (s)		12.4			13.1			22.4			17.6	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM Average Control Delay	13.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	57.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Kittelson & Associates, Inc. - Project #9700

Year 2008 Existing Traffic Conditions, Weekday AM Peak Hour

Scenario Report

Scenario:	am
Command:	Default Command
Volume:	am
Geometry:	am
Impact Fee:	Default Impact Fee
Trip Generation:	Nyberg Lodge am
Trip Distribution:	Nyberg Lodge Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Kittelson & Associates, Inc. - Project #9700

Year 2008 Existing Traffic Conditions, Weekday AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 5 SW 57th Ave / SW Nyberg Ln	B	10.3	0.000	B	10.3	0.000	+ 0.000 D/V
# 6 SW 65th Ave / SW Borland Rd	C	27.2	0.798	C	27.2	0.798	+ 0.000 D/V
# 7 SW 57th Ave / SW Borland Rd	C	16.1	0.000	C	16.1	0.000	+ 0.000 D/V
# 8 SW 50th Ave/SW Wilke Rd / SW B	B	14.5	0.000	B	14.5	0.000	+ 0.000 D/V

Kittelson & Associates, Inc. - Project #9700

Year 2008 Existing Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 SW 57th Ave / SW Nyberg Ln

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: B[10.3]

Street Name:	SW 57th Ave									SW Nyberg Ln					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0	1!	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
Volume Module: >> Count Date: 23 Oct 2008 << 7:10 AM to 8:10 AM																				
Base Vol:	94	0	2	0	0	0	0	34	35		1	119	0							
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00							
Initial Bse:	94	0	2	0	0	0	0	34	35		1	119	0							
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00							
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86		0.86	0.86	0.86							
PHF Volume:	109	0	2	0	0	0	0	40	41		1	138	0							
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0							
FinalVolume:	109	0	2	0	0	0	0	40	41		1	138	0							
Critical Gap Module:																				
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx							
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx							
Capacity Module:																				
Cnflict Vol:	202	202	61	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		81	xxxx	xxxxx							
Potent Cap.:	792	698	1010	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		1529	xxxx	xxxxx							
Move Cap.:	790	697	1009	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		1528	xxxx	xxxxx							
Volume/Cap:	0.14	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		0.00	xxxx	xxxx							
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		0.0	xxxx	xxxxx							
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		7.4	xxxx	xxxxx							
LOS by Move:	*	*	*	*	*	*	*	*	*		A	*	*							
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT		LT -	LTR -	RT							
Shared Cap.:	xxxx	794	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx							
SharedQueue:	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		0.0	xxxx	xxxxx							
Shrd ConDel:	xxxxx	10.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		7.4	xxxx	xxxxx							
Shared LOS:	*	B	*	*	*	*	*	*	*		A	*	*							
ApproachDel:	10.3			xxxxxx			xxxxxx				xxxxxx									
ApproachLOS:	B			*			*				*									

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2008 Existing Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 SW 65th Ave / SW Borland Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.798
Loss Time (sec): 16 (Y+R=0.0 sec) Average Delay (sec/veh): 27.2
Optimal Cycle: 86 Level Of Service: C

Street Name:	SW 65th Ave									SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase					
Rights:	Include			Include			Include			Ovl					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	1	0	0	1	0	0	0	1!	0	0	0	1	0	0	1
Volume Module: >> Count Date: 23 Oct 2008 << 7:35 AM to 8:35 AM																				
Base Vol:	2	452	180	222	228	32	5	2	2		246	10	297							
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00							
Initial Bse:	2	452	180	222	228	32	5	2	2		246	10	297							
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00							
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96		0.96	0.96	0.96							
PHF Volume:	2	471	188	231	238	33	5	2	2		256	10	309							
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0							
Reduced Vol:	2	471	188	231	238	33	5	2	2		256	10	309							
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00							
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00							
FinalVolume:	2	471	188	231	238	33	5	2	2		256	10	309							
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900		1900	1900	1900							
Adjustment:	0.91	0.92	0.92	0.90	0.93	0.93	0.94	0.94	0.94		0.92	0.92	0.82							
Lanes:	1.00	0.72	0.28	1.00	0.88	0.12	0.56	0.22	0.22		0.96	0.04	1.00							
Final Sat.:	1735	1251	498	1702	1543	217	994	398	398		1676	68	1554							
Capacity Analysis Module:																				
Vol/Sat:	0.00	0.38	0.38	0.14	0.15	0.15	0.01	0.01	0.01		0.15	0.15	0.20							
Crit Moves:		****		****				****				****								
Green/Cycle:	0.48	0.47	0.47	0.68	0.64	0.64	0.01	0.01	0.01		0.19	0.19	0.36							
Volume/Cap:	0.00	0.80	0.80	0.52	0.24	0.24	0.80	0.80	0.80		0.80	0.80	0.55							
Delay/Veh:	13.7	27.9	27.9	13.8	7.9	7.9	202.6	203	202.6		51.2	51.2	26.6							
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00							
AdjDel/Veh:	13.7	27.9	27.9	13.8	7.9	7.9	202.6	203	202.6		51.2	51.2	26.6							
LOS by Move:	B	C	C	B	A	A	F	F	F		D	D	C							
HCM2kAvgQ:	0	19	19	4	4	4	1	1	1		10	10	8							

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2008 Existing Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 SW 57th Ave / SW Borland Rd

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: C[16.1]

Street Name:	SW 57th Ave						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0	0 0	0	0 1!	0 0	1	0 1	0 0	0	0 0	1 0
Volume Module: >> Count Date: 23 Oct 2008 << 7:35 AM to 8:35 AM												
Base Vol:	0	0	0	12	0	70	32	322	0	0	528	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	12	0	70	32	322	0	0	528	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	0	0	0	14	0	80	36	366	0	0	600	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	14	0	80	36	366	0	0	600	11
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.6	6.3	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1046	1047	620	613	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	250	225	483	937	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	242	216	477	936	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.06	0.00	0.17	0.04	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	418	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	16.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			16.1			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2008 Existing Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 SW 50th Ave/SW Wilke Rd / SW Borland Rd

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: B[14.5]

Street Name:	SW 50th Ave/SW Wilke Rd						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0	0 0	1	0 0	0 1	1	0 1	0 0	0	0 0	1 0
Volume Module: >> Count Date: 23 Oct 2008 << 7:35 AM to 8:35 AM												
Base Vol:	0	0	0	44	0	44	19	246	0	0	416	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	44	0	44	19	246	0	0	416	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	0	0	0	50	0	50	22	280	0	0	473	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	50	0	50	22	280	0	0	473	16
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.3	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	803	xxxx	481	489	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	348	xxxx	579	1059	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	343	xxxx	579	1059	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.15	xxxx	0.09	0.02	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.5	xxxx	0.3	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	17.3	xxxx	11.8	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	B	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			14.5			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑					↰	↑	↱↱
Volume (vph)	0	1384	879	127	973	0	0	0	0	677	2	1178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4988	1538	1770	3438					1649	1654	2707
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4988	1538	1770	3438					1649	1654	2707
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	1472	935	135	1035	0	0	0	0	720	2	1253
RTOR Reduction (vph)	0	0	526	0	0	0	0	0	0	0	0	250
Lane Group Flow (vph)	0	1472	409	135	1035	0	0	0	0	360	362	1003
Heavy Vehicles (%)	2%	4%	5%	2%	5%	2%	2%	2%	2%	4%	2%	5%
Turn Type			Perm	Prot						Split		custom
Protected Phases		2		1	6					4	4	4 5
Permitted Phases			2									
Actuated Green, G (s)		40.5	40.5	11.8	41.5					35.7	35.7	50.5
Effective Green, g (s)		40.5	40.5	11.8	41.5					35.7	35.7	50.5
Actuated g/C Ratio		0.40	0.40	0.12	0.42					0.36	0.36	0.50
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	
Vehicle Extension (s)		5.0	5.0	5.0	4.0					3.0	3.0	
Lane Grp Cap (vph)		2020	623	209	1427					589	590	1367
v/s Ratio Prot		0.30		0.08	c0.30					0.22	0.22	c0.37
v/s Ratio Perm			0.27									
v/c Ratio		0.73	0.66	0.65	0.73					0.61	0.61	0.73
Uniform Delay, d1		25.1	24.1	42.1	24.5					26.4	26.5	19.5
Progression Factor		1.00	1.00	1.02	0.73					1.00	1.00	1.00
Incremental Delay, d2		2.3	5.3	8.3	3.0					1.9	1.9	2.1
Delay (s)		27.5	29.5	51.3	20.9					28.3	28.4	21.5
Level of Service		C	C	D	C					C	C	C
Approach Delay (s)		28.2			24.4			0.0			24.0	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM Average Control Delay	25.9	HCM Level of Service	C
HCM Volume to Capacity ratio	~~0.70~~ 0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	~~4.0~~ 8.0
Intersection Capacity Utilization	90.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

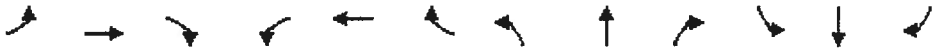
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱↑		↑↑	↱	↰	↰	↱			
Volume (vph)	0	1093	968	0	494	656	606	0	183	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.5	4.0	4.0	4.0	4.0			
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00			
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85			
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)		3539	2682		3539	1583	1588	1588	1583			
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)		3539	2682		3539	1583	1588	1588	1583			
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	1175	1041	0	531	705	652	0	197	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	57	0	0	0
Lane Group Flow (vph)	0	1175	1041	0	531	705	326	326	140	0	0	0
Heavy Vehicles (%)	2%	2%	6%	2%	2%	2%	8%	2%	2%	2%	2%	2%
Turn Type			Free			Free	Split		Perm			
Protected Phases		2			6		8	8				
Permitted Phases			Free			Free			8			
Actuated Green, G (s)		65.7	100.0		65.2	100.0	26.3	26.3	26.3			
Effective Green, g (s)		65.7	100.0		65.2	100.0	26.3	26.3	26.3			
Actuated g/C Ratio		0.66	1.00		0.65	1.00	0.26	0.26	0.26			
Clearance Time (s)		4.0			4.5		4.0	4.0	4.0			
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)		2325	2682		2307	1583	418	418	416			
v/s Ratio Prot		c0.33			0.15		c0.21	0.21				
v/s Ratio Perm			0.39			0.45			0.09			
v/c Ratio		0.51	0.39		0.23	0.45	0.78	0.78	0.34			
Uniform Delay, d1		8.8	0.0		7.1	0.0	34.2	34.2	29.8			
Progression Factor		0.56	1.00		1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2		0.6	0.3		0.2	0.9	8.9	8.9	0.5			
Delay (s)		5.5	0.3		7.4	0.9	43.1	43.1	30.3			
Level of Service		A	A		A	A	D	D	C			
Approach Delay (s)		3.1			3.7			40.1			0.0	
Approach LOS		A			A			D			A	

Intersection Summary			
HCM Average Control Delay	10.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	210	984	55	20	877	47	92	9	17	66	8	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	0.97	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.96	1.00
Satd. Flow (prot)	3433	3511		1787	3512			1782	1583		1784	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.69	1.00		0.68	1.00
Satd. Flow (perm)	3433	3511		1787	3512			1284	1583		1258	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	223	1047	59	21	933	50	98	10	18	70	9	166
RTOR Reduction (vph)	0	3	0	0	3	0	0	0	15	0	0	137
Lane Group Flow (vph)	223	1103	0	21	980	0	0	108	3	0	79	29
Heavy Vehicles (%)	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	10.4	38.3		2.5	30.4			12.4	12.4		12.4	12.4
Effective Green, g (s)	10.4	38.3		2.5	30.4			12.4	12.4		12.4	12.4
Actuated g/C Ratio	0.15	0.54		0.04	0.43			0.17	0.17		0.17	0.17
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	501	1889		63	1500			224	276		219	276
v/s Ratio Prot	c0.06	c0.31		0.01	c0.28							
v/s Ratio Perm								c0.08	0.00		0.06	0.02
v/c Ratio	0.45	0.58		0.33	0.65			0.48	0.01		0.36	0.10
Uniform Delay, d1	27.8	11.1		33.5	16.2			26.5	24.3		25.9	24.7
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.6	0.5		3.1	1.0			1.6	0.0		1.0	0.2
Delay (s)	28.4	11.5		36.6	17.2			28.1	24.3		26.9	24.9
Level of Service	C	B		D	B			C	C		C	C
Approach Delay (s)		14.4			17.6			27.6			25.6	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	17.2	HCM Level of Service	B
HCM Volume to Capacity ratio	~~0.67~~ 0.56		
Actuated Cycle Length (s)	71.2	Sum of lost time (s)	~~24.0~~ 18.0
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	254	737	27	23	784	13	30	8	45	5	9	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.98	1.00
Satd. Flow (prot)	1770	1853		1770	3530			1791	1583		1830	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.76	1.00		0.87	1.00
Satd. Flow (perm)	1770	1853		1770	3530			1415	1583		1612	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	267	776	28	24	825	14	32	8	47	5	9	117
RTOR Reduction (vph)	0	1	0	0	1	0	0	0	42	0	0	67
Lane Group Flow (vph)	267	803	0	24	838	0	0	40	5	0	14	50
Turn Type	Prot			Prot			Perm		Perm	Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8		8	4		4
Actuated Green, G (s)	15.6	40.3		2.4	27.1			7.2	7.2		7.2	22.8
Effective Green, g (s)	15.6	40.3		2.4	27.1			7.2	7.2		7.2	22.8
Actuated g/C Ratio	0.23	0.59		0.04	0.40			0.11	0.11		0.11	0.34
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	2.4	2.5		2.6	2.5			1.6	1.6		1.6	2.4
Lane Grp Cap (vph)	407	1100		63	1409			150	168		171	671
v/s Ratio Prot	c0.15	c0.43		0.01	0.24							0.02
v/s Ratio Perm								c0.03	0.00		0.01	0.01
v/c Ratio	0.66	0.73		0.38	0.59			0.27	0.03		0.08	0.07
Uniform Delay, d1	23.7	9.9		32.0	16.1			27.9	27.2		27.4	15.4
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	3.3	2.4		3.0	0.6			0.3	0.0		0.1	0.0
Delay (s)	27.0	12.3		35.0	16.6			28.3	27.2		27.4	15.4
Level of Service	C	B		D	B			C	C		C	B
Approach Delay (s)		16.0			17.2			27.7			16.7	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM Average Control Delay	17.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	67.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Kittelson & Associates, Inc. - Project #9700

Year 2008 Existing Traffic Conditions, Weekday PM Peak Hour

Scenario Report

Scenario:	pm
Command:	Default Command
Volume:	pm
Geometry:	pm
Impact Fee:	Default Impact Fee
Trip Generation:	Nyberg Lodge pm
Trip Distribution:	Nyberg Lodge Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Kittelson & Associates, Inc. - Project #9700

Year 2008 Existing Traffic Conditions, Weekday PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 5 SW 57th Ave / SW Nyberg Ln	B	10.6	0.000	B	10.6	0.000	+ 0.000 D/V
# 6 SW 65th Ave / SW Borland Rd	C	30.4	0.852	C	30.4	0.852	+ 0.000 D/V
# 7 SW 57th Ave / SW Borland Rd	B	13.8	0.000	B	13.8	0.000	+ 0.000 D/V
# 8 SW 50th Ave/SW Wilke Rd / SW B	C	16.5	0.000	C	16.5	0.000	+ 0.000 D/V

Kittelson & Associates, Inc. - Project #9700

Year 2008 Existing Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 SW 57th Ave / SW Nyberg Ln

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: B[10.6]

Street Name:	SW 57th Ave						SW Nyberg Ln					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 0 0 0			0 0 0 1 0			0 1 0 0 0		
Volume Module: >> Count Date: 23 Oct 2008 << 4:35 PM to 5:35 PM												
Base Vol:	60	0	2	0	0	0	0	113	76	2	74	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	0	2	0	0	0	0	113	76	2	74	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	68	0	2	0	0	0	0	128	86	2	84	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	68	0	2	0	0	0	0	128	86	2	84	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	272	270	173	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	216	xxxx	xxxxx
Potent Cap.:	717	636	871	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1348	xxxx	xxxxx
Move Cap.:	709	630	870	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1347	xxxx	xxxxx
Volume/Cap:	0.10	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	713	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	10.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:		10.6			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		B			*			*			*	

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2008 Existing Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 SW 65th Ave / SW Borland Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.852
Loss Time (sec): 16 (Y+R=0.0 sec) Average Delay (sec/veh): 30.4
Optimal Cycle: 100 Level Of Service: C

Street Name:	SW 65th Ave						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module: >> Count Date: 23 Oct 2008 << 4:35 PM to 5:35 PM												
Base Vol:	2	315	267	323	396	4	29	5	2	235	1	233
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	315	267	323	396	4	29	5	2	235	1	233
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	2	335	284	344	421	4	31	5	2	250	1	248
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	335	284	344	421	4	31	5	2	250	1	248
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	335	284	344	421	4	31	5	2	250	1	248
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.91	0.91	0.92	0.97	0.97	0.95	0.95	0.95	0.94	0.94	0.84
Lanes:	1.00	0.54	0.46	1.00	0.99	0.01	0.80	0.14	0.06	0.99	0.01	1.00
Final Sat.:	1768	936	793	1752	1825	18	1459	252	101	1785	8	1599
Capacity Analysis Module:												
Vol/Sat:	0.00	0.36	0.36	0.20	0.23	0.23	0.02	0.02	0.02	0.14	0.14	0.16
Crit Moves:		****		****					****		****	
Green/Cycle:	0.42	0.42	0.42	0.69	0.65	0.65	0.02	0.02	0.02	0.16	0.16	0.39
Volume/Cap:	0.01	0.85	0.85	0.65	0.36	0.36	0.85	0.85	0.85	0.85	0.85	0.39
Delay/Veh:	16.6	35.7	35.7	20.8	8.3	8.3	128.4	128	128.4	61.1	61.1	22.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.6	35.7	35.7	20.8	8.3	8.3	128.4	128	128.4	61.1	61.1	22.1
LOS by Move:	B	D	D	C	A	A	F	F	F	E	E	C
HCM2kAvgQ:	0	20	20	7	6	6	3	3	3	10	10	6

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2008 Existing Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 SW 57th Ave / SW Borland Rd

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: B[13.8]

Street Name:	SW 57th Ave						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0	0 0	0 0	1!	0 0	1	0 1	0 0	0 0	0	1 0
Volume Module: >> Count Date: 23 Oct 2008 << 4:45 PM to 5:45 PM												
Base Vol:	0	0	0	9	0	40	41	545	0	0	343	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	9	0	40	41	545	0	0	343	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	0	0	11	0	47	48	641	0	0	404	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	11	0	47	48	641	0	0	404	31
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1156	1156	419	434	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	219	198	639	1131	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	212	190	639	1131	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.05	0.00	0.07	0.04	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	466	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	13.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			13.8			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2008 Existing Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 SW 50th Ave/SW Wilke Rd / SW Borland Rd

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: C[16.5]

Street Name:	SW 50th Ave/SW Wilke Rd						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0	0 0	0	1	0 0	1	0 1	0 0	0 0	0	1 0
Volume Module: >> Count Date: 23 Oct 2008 << 4:45 PM to 5:45 PM												
Base Vol:	0	0	0	29	0	31	42	466	0	0	311	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	29	0	31	42	466	0	0	311	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
PHF Volume:	0	0	0	35	0	37	50	555	0	0	370	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	35	0	37	50	555	0	0	370	54
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1052	xxxx	405	424	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	250	xxxx	644	1135	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	241	xxxx	639	1135	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.14	xxxx	0.06	0.04	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.5	xxxx	0.2	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	22.4	xxxx	11.0	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	B	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			16.5			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

Appendix D
Crash Data

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Pacific Hwy (Hwy 1, Route I-5) SB off ramp at SW Nyberg Road/Street in Tualatin
1-1-2003 through 12-31-2007

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2007														
ANGLE	0	0	1	1	0	0	0	1	0	1	0	1	0	0
BACKING	0	0	1	1	0	0	0	0	0	0	1	1	0	0
REAR-END	0	5	4	9	0	6	0	8	1	9	0	9	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2007 TOTAL	0	5	7	12	0	6	0	10	1	11	1	12	0	0
YEAR: 2006														
BACKING	0	0	1	1	0	0	0	1	0	1	0	1	0	0
PEDESTRIAN	0	1	0	1	0	1	0	0	1	0	1	1	0	0
REAR-END	0	12	3	15	0	15	0	11	4	9	6	15	0	0
TURNING MOVEMENTS	0	1	5	6	0	1	1	5	1	4	2	6	0	0
2006 TOTAL	0	14	9	23	0	17	1	17	6	14	9	23	0	0
YEAR: 2005														
REAR-END	0	2	3	5	0	5	0	3	2	5	0	5	0	0
TURNING MOVEMENTS	0	2	3	5	0	3	0	2	3	1	4	5	0	0
2005 TOTAL	0	4	6	10	0	8	0	5	5	6	4	10	0	0
YEAR: 2004														
REAR-END	0	10	4	14	0	18	0	12	2	9	5	14	0	0
TURNING MOVEMENTS	0	3	1	4	0	4	0	2	2	4	0	4	0	0
2004 TOTAL	0	13	5	18	0	22	0	14	4	13	5	18	0	0
YEAR: 2003														
ANGLE	0	0	1	1	0	0	0	1	0	0	1	1	0	0
PEDESTRIAN	0	1	0	1	0	2	0	1	0	0	1	1	0	0
REAR-END	0	2	6	8	0	2	0	6	2	6	2	8	0	0
TURNING MOVEMENTS	0	0	5	5	0	0	0	2	3	3	2	5	0	0
2003 TOTAL	0	3	12	15	0	4	0	10	5	9	6	15	0	0
FINAL TOTAL	0	39	39	78	0	57	1	56	21	53	25	78	0	0

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Pacific Hwy (Hwy 1, Route I-5) NB off ramp at SW Nyberg Road/Street in Tualatin
1-1-2003 through 12-31-2007

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2007														
REAR-END	0	0	1	1	0	0	0	1	0	0	1	1	0	0
2007 TOTAL	0	0	1	1	0	0	0	1	0	0	1	1	0	0
YEAR: 2006														
REAR-END	0	2	3	5	0	2	1	5	0	5	0	5	0	0
2006 TOTAL	0	2	3	5	0	2	1	5	0	5	0	5	0	0
YEAR: 2005														
SIDESWIPE - MEETING	0	0	1	1	0	0	0	1	0	0	1	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	0	1	1	0	0
2005 TOTAL	0	0	2	2	0	0	0	1	1	0	2	2	0	0
YEAR: 2004														
PEDESTRIAN	0	1	0	1	0	1	0	1	0	1	0	1	0	0
REAR-END	0	3	3	6	0	3	1	5	1	6	0	6	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	0	1	1	0	1	0	0
2004 TOTAL	0	5	3	8	0	5	1	6	2	8	0	8	0	0
YEAR: 2003														
REAR-END	0	2	2	4	0	3	0	3	1	3	1	4	0	0
TURNING MOVEMENTS	0	0	3	3	0	0	0	3	0	3	0	3	0	0
2003 TOTAL	0	2	5	7	0	3	0	6	1	6	1	7	0	0
FINAL TOTAL	0	9	14	23	0	10	2	19	4	19	4	23	0	0

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

001 PACIFIC

Pacific Hwy (Hwy 1, Route I-5) NB off ramp at SW Nyberg Road/Street in Tualatin
1-1-2003 through 12-31-2007

SER# / INVEST	SPEED	DRUGS	ALCOHOL	CSL	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# / COMPNT / MLG / MILEPNT	FC / TYP	CONN # / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN EVENT	CAUSE
05816	N	N	N				10/04/2006	WASHINGTON	2 11			INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE							Wed	TUALATIN	0 0		SW NYBERG RD	CN		TRF SIGNAL	N	DRY	REAR		PRVTE	S N									000	00
							7A	PORTLAND UA	289.54		NB EX NYBERG RD C1	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	45	F	OR-Y OR<25		026	000	07
																		02	NONE 0	STOP									011	00
																			PRVTE	S N									000	00
																			PSNGR CAR		01	DRVR	NONE	68	M	OR-Y OR<25		000		
06413	N	N	N	N	N		10/27/2006	WASHINGTON	1 19		1	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
CITY							Fri	TUALATIN	6 0		SW NYBERG RD	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	S N									000	00
							4P	PORTLAND UA	289.40		NB EX NYBERG RD C1	09	1		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	24	M	OR-Y OR<25		026	000	07
																		02	NONE 0	STOP									011	00
																			PRVTE	S N									000	00
																			PSNGR CAR		01	DRVR	INJB	19	F	OR-Y OR<25		000		
03745	N	N	N	N	N		07/07/2004	WASHINGTON	1 16		2	INTER	3-LEG	N	N	CLD	S-1STOP	01	NONE 0	STRGHT										07
CITY							Wed	TUALATIN	6 0		SW NYBERG RD	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E W									000	00
							7A	PORTLAND UA	289.41		NB EX NYBERG RD C1	06	99		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	40	M	OR-Y OR<25		026	000	07
																		02	NONE 1	STOP									011	00
																			PRVTE	E W									000	00
																			SEMI TOW		01	DRVR	NONE	30	M	OTH-Y N-RES		000		
02883	N	N	N				05/22/2005	WASHINGTON	1 16		2	INTER	3-LEG	N	N	CLR	O-STRGHT	01	NONE 0	STRGHT										10
CITY							Sun	TUALATIN	6 0		SW NYBERG RD	E		TRF SIGNAL	N	DRY	SS-M		PRVTE	W E									000	00
							8P	PORTLAND UA	289.41		NB EX NYBERG RD C1	06	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	23	M	UNK UNK		080	000	10
																		02	NONE 0	STOP									012	00
																			PRVTE	W E									000	00
																			PSNGR CAR		01	DRVR	NONE	57	F	OR-Y OR<25		000		
06192	N	N	N	Y	Y		10/19/2007	WASHINGTON	1 16		2	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	STRGHT										07
NONE							Fri	TUALATIN	6 0		SW NYBERG RD	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W E									000	00
							7P	PORTLAND UA	289.42		NB EX NYBERG RD C1	06	1		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	47	F	OR-Y OR<25		026	000	07
																		02	NONE	STOP									011	00
																			PRVTE	W E									000	00
																			PSNGR CAR		01	DRVR	NONE	52	M	OR-Y OR<25		000		
09660	N	N	N				11/15/2003	WASHINGTON	1 19		2	INTER	3-LEG	N	N	CLR	S-OTHER	01	NONE	TURN-L										08
NONE							Sat	TUALATIN	6 0		SW NYBERG RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	S W									000	00
							11A	PORTLAND UA	289.42		NB EX NYBERG RD C1	01	99		N	DAY	PDO		MOTRHOME		01	DRVR	NONE	78	M	OR-Y OR<25		001	000	08

001 PACIFIC

Pacific Hwy (Hwy 1, Route I-5) NB off ramp at SW Nyberg Road/Street in Tualatin
1-1-2003 through 12-31-2007

SER# / INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# / COMPNT / MLG / MILEPNT	FC / TYP	CONN # / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN EVENT	CAUSE
																	02	NONE / PRVTE / PSNGR CAR	TURN-L / S W	01	DRVR	NONE	57	F	OR-Y / OR<25		000	000	00
02714	N	N	N	N	N	05/24/2004 / Mon / 8P	WASHINGTON / TUALATIN / PORTLAND UA	1 / 6 / 289.42	16 / 0	2 / SW NYBERG RD / NB EX NYBERG RD C1	INTER / CN / 03	3-LEG / 99	N / TRF SIGNAL	N / N / N	CLR / DRY / DAY	PED / PED / INJ	01	NONE / PRVTE / PSNGR CAR	TURN-L / S W	01	DRVR	NONE	32	M	OR-Y / OR<25		029	000	02
CITY																												000	00
																			STRGHT / N S	01	PED	INJB	14	F		01	000	035	00
03922	N	N	N			05/15/2003 / Thu / 6P	WASHINGTON / TUALATIN / PORTLAND UA	2 / 6 / 289.42	16 / 0	2 / SW NYBERG RD / NB EX NYBERG RD C1	INTER / CN / 04	3-LEG / 0	N / TRF SIGNAL	N / N / N	CLD / DRY / DAY	ANGL-OTH / TURN / PDO	01	NONE / PRVTE / PSNGR CAR	STRGHT / W E	01	DRVR	NONE	33	F	OR-Y / OR<25		020	000	04
CITY																												000	00
																	02	NONE / PRVTE / PSNGR CAR	TURN-L / SW W	01	DRVR	NONE	23	M	OR-Y / OR<25		000	000	00
09466	N	N	N	N	N	11/14/2003 / Fri / 5P	WASHINGTON / TUALATIN / PORTLAND UA	1 / 6 / 289.53	19 / 0	1 / SW NYBERG RD / NB EX NYBERG RD C1	INTER / S / 06	3-LEG / 0	N / TRF SIGNAL	N / N / N	CLR / DRY / DLIT	S-1STOP / REAR / INJ	01	NONE / PRVTE / PSNGR CAR	STRGHT / S N	01	DRVR	NONE	35	M	OR-Y / OR<25		026	088	07
CITY																												088	00
																	02	NONE / PRVTE / PSNGR CAR	STOP / S N	01	DRVR	INJB	22	F	OR-Y / OR<25		000	011	00
																												000	00
02632	N	N	N			05/19/2004 / Wed / 1P	WASHINGTON / TUALATIN / PORTLAND UA	1 / 6 / 289.53	19 / 0	1 / SW NYBERG RD / NB EX NYBERG RD C1	INTER / S / 06	3-LEG / 99	N / TRF SIGNAL	N / N / N	CLR / DRY / DAY	S-1STOP / REAR / PDO	01	NONE / PRVTE / PSNGR CAR	STRGHT / SW NE	01	DRVR	NONE	61	M	OR-Y / OR>25		016,026	038	27
NONE																												000	00
																	02	NONE / PRVTE / PSNGR CAR	STOP / SW NE	01	DRVR	NONE	52	M	OR-Y / OR<25		000	013	00
																												000	00
09590	Y	N	N			11/20/2003 / Thu / 11A	WASHINGTON / TUALATIN / PORTLAND UA	1 / 6 / 289.54	19 / 0	1 / SW NYBERG RD / NB EX NYBERG RD C1	INTER / S / 05	3-LEG / 99	N / ONE-WAY	N / N / N	RAIN / WET / DAY	S-1STOP / REAR / PDO	01	NONE / PRVTE / PSNGR CAR	STRGHT / S N	01	DRVR	NONE	18	M	OR-Y / OR<25		026,047	001	01
NONE																												000	00
																	02	NONE / PRVTE / PSNGR CAR	STOP / S N	01	DRVR	NONE	61	M	OR-Y / OR<25		000	011	00
																												000	00

001 PACIFIC

Pacific Hwy (Hwy 1, Route I-5) NB off ramp at SW Nyberg Road/Street in Tualatin
1-1-2003 through 12-31-2007

SER# / INVEST	S P E L	D R A L	S W C S	O H L	C R K	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# / COMPNT / MLG / MILEPNT	FC / TYP	CONN # / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN EVENT	CAUSE
06490	N	N	N			08/09/2003	WASHINGTON	1 19		1	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE	STRGHT										07
NONE						Sat	TUALATIN	6 0		SW NYBERG RD	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S N									000	00
						5P	PORTLAND UA	289.54		NB EX NYBERG RD C1	06	99		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	41	F	OR-Y OR<25		026	000	07
																	02	NONE	STOP									011	00
																		PRVTE	S N									000	00
																		PSNGR CAR		01	DRVR	INJC	46	F	OR-Y OR<25		000		
																				02	PSNG	INJC	46	M			000	000	00
10991	N	N	N			11/08/2003	WASHINGTON	1 19		1	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											27,07
NONE						Sat	TUALATIN	6 0		SW NYBERG RD	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S N									088	00
						10A	PORTLAND UA	289.54		NB EX NYBERG RD C1	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	64	M	OR-Y OR<25		016,026	088	27,07
																	02	NONE 0	STOP									011	00
																		PRVTE	S N									000	00
																		PSNGR CAR		01	DRVR	NONE	54	F	OR-Y OR<25		000		
00628	Y	N	N			02/09/2004	WASHINGTON	1 19		1	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE	STRGHT											01,27
NONE						Mon	TUALATIN	6 0		SW NYBERG RD	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S N									000	00
						10A	PORTLAND UA	289.54		NB EX NYBERG RD C1	06	99		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	55	M	OR-Y OR<25		016,026,047	038	01,27
																	02	NONE	STOP									011	00
																		PRVTE	S N									000	00
																		PSNGR CAR		01	DRVR	NONE	47	M	OR-Y OR<25		000		
																				02	PSNG	INJC	46	F			000	000	00
03045	N	N	N	N		06/08/2004	WASHINGTON	1 19		1	INTER	3-LEG	N	N	CLD	S-1STOP	01	NONE	STRGHT											07
CITY						Tue	TUALATIN	6 0		SW NYBERG RD	S		TRF SIGNAL	N	WET	REAR		PRVTE	S N									000	00
						10A	PORTLAND UA	289.54		NB EX NYBERG RD C1	06	99		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	33	M	OR-Y OR<25		026	000	07
																	02	NONE	STOP									011	00
																		PRVTE	S N									000	00
																		PSNGR CAR		01	DRVR	INJC	33	F	OR-Y OR>25		000		
05670	N	N	N			09/21/2004	WASHINGTON	1 19		1	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE	STRGHT											07
NONE						Tue	TUALATIN	6 0		SW NYBERG RD	S		NONE	N	DRY	REAR		UNKN	S N									000	00
						4P	PORTLAND UA	289.54		NB EX NYBERG RD C1	06	99		N	DAY	PDO		UNKNOWN		01	DRVR	NONE	00	U	UNK UNK		026	000	07
																	02	NONE	STOP									011	00
																		PRVTE	S N									000	00
																		PSNGR CAR		01	DRVR	NONE	38	M	OR-Y OR<25		000		

001 PACIFIC

Pacific Hwy (Hwy 1, Route I-5) NB off ramp at SW Nyberg Road/Street in Tualatin
1-1-2003 through 12-31-2007

SER# / INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# / COMPNT / MLG / MILEPNT	FC / TYP	CONN # / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN EVENT	CAUSE
03388	N	N	N	N	N	06/12/2006	WASHINGTON	1 19	1	1	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 1	TURN-R										08
NONE						Mon	TUALATIN	6 0		SW NYBERG RD	SW		ONE-WAY	N	DRY	REAR		PRVTE	SW E										000	00
						1P	PORTLAND UA	289.54		NB EX NYBERG RD C1	05	0		N	DAY	PDO		SEMI TOW		01	DRVR	NONE	00	M	UNK UNK		026,001	000	08
																	02	NONE	STOP										012	00
																		PRVTE	SW E										000	00
																		PSNGR CAR		01	DRVR	NONE	47	M	OR-Y OR<25		000		
02320	N	N	N			04/21/2006	WASHINGTON	1 19	1	1	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE	STRGHT										07
NO RPT						Fri	TUALATIN	6 0		SW NYBERG RD	SW		ONE-WAY	N	DRY	REAR		PRVTE	SW NE										000	00
						2P	PORTLAND UA	289.54		NB EX NYBERG RD C1	06	99		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	42	M	OR-Y OR<25		026	000	07
																	02	NONE	STOP										011	00
																		PRVTE	SW NE										000	00
																		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y OR<25		000		
07299	N	N	N			11/29/2004	WASHINGTON	1 11	1	1	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE						Mon	TUALATIN	6 0		SW NYBERG RD	CN		TRF SIGNAL	N	DRY	REAR		PRVTE	NE SW										000	00
						1P	PORTLAND UA	289.54		NB EX NYBERG RD C1	02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	55	F	OR-Y OR<25		026	000	07
																	02	NONE 0	STOP										011	00
																		PRVTE	NE SW										000	00
																		PSNGR CAR		01	DRVR	NONE	48	M	OR-Y OR<25		000		
																				02	PSNG	INJB	40	F			000	000	00
06301	N	N	N			08/01/2003	WASHINGTON	1 11	1	1	INTER	3-LEG	N	N	CLR	S-1TURN	01	NONE 0	STRGHT										07
NONE						Fri	TUALATIN	6 0		SW NYBERG RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	S N										088	00
						3P	PORTLAND UA	289.54		NB EX NYBERG RD C1	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	25	M	OTH-Y N-RES		014	088	07
																	02	NONE 0	TURN-R										016	00
																		PRVTE	S E										000	00
																		PSNGR CAR		01	DRVR	NONE	28	F	OR-Y OR<25		000		
02484	N	N	N			05/01/2006	WASHINGTON	1 19	1	1	INTER	3-LEG	N	N	CLR	S-1STOP	01	UNKN 9	STRGHT										07
NONE						Mon	TUALATIN	6 0		SW NYBERG RD	CN		TRF SIGNAL	N	DRY	REAR		UNKN	S N										000	00
						1P	PORTLAND UA	289.54		NB EX NYBERG RD C1	06	0		N	DAY	INJ		UNKNOWN		01	DRVR	NONE	00	F	OR-Y UNK		026	000	07
																	02	NONE 0	STOP										011	00
																		PRVTE	S N										000	00
																		PSNGR CAR		01	DRVR	INJC	57	M	OR-Y OR<25		000		

001 PACIFIC

Pacific Hwy (Hwy 1, Route I-5) NB off ramp at SW Nyberg Road/Street in Tualatin
1-1-2003 through 12-31-2007

SER# / INVEST	SPEED	ALCOHOL	DRUGS	SCHL BUS	WORK ZONE	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# COMPNT / MLG / TYP / MILEPNT	FC	CONN # / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN EVENT	CAUSE
00480	N	N	N	N	N	02/02/2004	WASHINGTON	1 16	2		INTER	3-LEG	N	N	CLD	ANGL-OTH	01	NONE 0	STRGHT									.	04
CITY						Mon	TUALATIN	6 0	SW NYBERG RD		CN		TRF SIGNAL	N	WET	TURN		PRVTE	W E									000	00
						4P	PORTLAND UA	289.54	NB EX NYBERG RD C1		04	99		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	26	M	OR-Y OR<25		020	000	04
																	02	NONE 0	TURN-L									000	00
																		PRVTE	S W									000	00
																		PSNGR CAR		01	DRVR	INJB	57	M	OR-Y OR<25		000	000	00
81380	N	N	N			04/07/2005	WASHINGTON	1 16	2		INTER	3-LEG	N	N	CLD	ANGL-OTH	01	UNKN 9	STRGHT										04
NO RPT						Thu	TUALATIN	6 0	SW NYBERG RD		CN		TRF SIGNAL	N	WET	TURN		UNKN	W E									000	00
						7P	PORTLAND UA	289.54	NB EX NYBERG RD C1		04	0		N	DARK	PDO		UNKNOWN		01	DRVR	NONE	00	M	UNK OR<25		020	000	04
																	02	NONE 0	TURN-L									000	00
																		PRVTE	S W									000	00
																		PSNGR CAR		01	DRVR	NONE	26	M	OR-Y OR<25		000	000	00

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

SW Nyberg Road/Street between Pacific Hwy (Hwy 1, Route I-5) NB off ramp and SW 65th Avenue in Tualatin
1-1-2003 through 12-31-2007

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2007														
REAR-END	0	1	0	1	0	1	0	1	0	1	0	0	0	0
2007 TOTAL	0	1	0	1	0	1	0	1	0	1	0	0	0	0
YEAR: 2005														
REAR-END	0	1	0	1	0	2	0	1	0	1	0	0	0	0
TURNING MOVEMENTS	0	1	1	2	0	1	0	0	2	1	1	0	0	0
2005 TOTAL	0	2	1	3	0	3	0	1	2	2	1	0	0	0
YEAR: 2004														
REAR-END	0	1	0	1	0	2	0	1	0	1	0	0	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	0	0	0
2004 TOTAL	0	1	1	2	0	2	0	2	0	2	0	0	0	0
YEAR: 2003														
REAR-END	0	1	0	1	0	1	0	0	1	0	1	0	0	0
TURNING MOVEMENTS	0	1	4	5	0	2	0	3	2	3	2	0	0	0
2003 TOTAL	0	2	4	6	0	3	0	3	3	3	3	0	0	0
FINAL TOTAL	0	6	6	12	0	9	0	7	5	8	4	0	0	0

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF TUALATIN, WASHINGTON COUNTY

SW Nyberg Road/Street between Pacific Hwy (Hwy 1, Route I-5) NB off ramp and SW 65th Avenue in Tualatin
1-1-2003 through 12-31-2007

SER# / INVEST	SPEC	ALC	DRUG	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF-CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
03443	N	N	N		N	04/28/2003	16	SW NYBERG RD	ALLEY		N	N	CLR	ANGL-OTH	01	NONE	STRGHT											02
CITY						Mon	50	NB EX NYBERG RD C1	E	(NONE)	NONE	N	DRY	TURN		PRVTE	W E									000	00
						3P			07			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	59	M	OR-Y		000	000	000	00
										(04)													OR<25					
															02	NONE	TURN-L										018	00
																PRVTE	S W										000	02
																PSNGR CAR		01	DRVR	NONE	43	F	OR-Y		028			
																							OR<25					
03197	N	N	N	N	N	04/17/2003	16	SW NYBERG RD	ALLEY		N	N	CLD	ANGL-OTH	01	NONE 0	STRGHT											02
CITY						Thu	463	NB EX NYBERG RD C1	E	(NONE)	NONE	N	WET	TURN		PRVTE	E W									000	00
						8A			08			N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	65	M	OR-Y		000	000	000	00
										(02)													OR<25					
															02	NONE 0	TURN-L										018	00
																PRVTE	N E										000	02
																PSNGR CAR		01	DRVR	INJB	37	F	OR-Y		028			
																							OR<25					
11016	N	N	N			12/05/2003	16	SW NYBERG RD	STRGHT		N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE						Fri	1,320	NB EX NYBERG RD C1	E	(NONE)	UNKNOWN	N	WET	REAR		PRVTE	E W									088	00
						5P			08			N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	25	F	OR-Y		026	088		07
										(02)													OR<25					
															02	NONE 0	STOP										011	00
																PRVTE	E W										000	00
																PSNGR CAR		01	DRVR	NONE	44	M	OR-Y		000			
																							OR<25					
04516	N	N	N	N	N	06/03/2003	16	SW NYBERG RD	ALLEY		N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L											02
CITY						Tue	200	SW 65TH AVE	W	(NONE)	NONE	N	DRY	TURN		PRVTE	S W									018	00
						11A			04			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	51	F	OR-Y		028	000		02
										(03)													OR<25					
															02	NONE 0	STRGHT										000	00
																PRVTE	W E										000	00
																PSNGR CAR		01	DRVR	NONE	30	M	OR-Y		000			
																							OR>25					
07395	N	N	N			08/10/2004	16	SW NYBERG RD	ALLEY		N	N	CLR	O-1TURN	01	NONE	STRGHT											02
NONE						Tue	50	SW 65TH AVE	W	(NONE)	UNKNOWN	N	DRY	TURN		PRVTE	E W									000	00
						7A			05			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	24	F	OR-Y		000	000		00
										(04)													OR<25					
															02	NONE	TURN-L										019	00
																PRVTE	W N										000	02
																PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		004,028			
																							OR<25					
00155	N	N	N			01/10/2005	16	SW NYBERG RD	ALLEY		N	N	FOG	O-1TURN	01	NONE 0	TURN-L											02,08,06
NONE						Mon	50	SW 65TH AVE	W	(NONE)	UNKNOWN	N	WET	TURN		PRVTE	W N									019	00
						7A			05			N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	35	M	OR-Y		028,004	000		02,08
										(02)													OR<25					

CITY OF TUALATIN, WASHINGTON COUNTY

SW Nyberg Road/Street between Pacific Hwy (Hwy 1, Route I-5) NB off ramp and SW 65th Avenue in Tualatin
1-1-2003 through 12-31-2007

SER# / INVEST	SPEC	ALC	DRUG	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
															02	NONE 0 PRVTE PSNGR CAR	STRGHT E W	01	DRVR	NONE	24	F	OR-Y OR<25		032	031 000		00 06
09846 NONE	N	N	N			11/30/2003 Sun 8P	16 80	SW NYBERG RD SW 65TH AVE	ALLEY W 07	(NONE) (02)	N L-TURN REF	N N N	CLR DRY DLIT	S-1TURN TURN PDO	01	NONE PRVTE PSNGR CAR	STRGHT E W	01	DRVR	NONE	25	M	OR-Y OR<25		000	000		09 00 00
															02	NONE PRVTE PSNGR CAR	TURN-L E S	01	DRVR	NONE	17	M	OR-Y OR<25		006	019 000		00 08
05894 CITY	N	N	N	N	N	09/26/2005 Mon 7A	16 528	SW NYBERG RD SW 65TH AVE	STRGHT W 07	(NONE) (02)	N UNKNOWN	N N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT E W	01	DRVR	NONE	33	M	OR-Y OR<25		026,016	000 038	013,093 093	27 00 27
															02	NONE 0 PRVTE PSNGR CAR	STOP E W	01	DRVR	INJB	32	M	OR-Y OR<25		000	011 000	013	00 00
															03	NONE 0 PRVTE PSNGR CAR	STOP E W	01	DRVR	INJC	43	F	OTH-Y OR<25		000	022 000		00 00
01519 CITY	N	N	N	N	N	03/24/2004 Wed 3P	16 100	SW NYBERG RD SW 65TH AVE	STRGHT W 08	(NONE) (04)	N NONE	N N N	CLD DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT W E	01	DRVR	NONE	26	M	OR-Y OR<25		026	000 000		07 00 07
															02	NONE 0 PRVTE PSNGR CAR	STOP W E	01	DRVR	INJB	57	M	OR-Y OR>25		000	011 000		00 00
																		02	PSNG	INJC	54	F			000	000		00
05174 NONE	N	N	N			06/17/2007 Sun 10A	16 150	SW NYBERG RD SW 65TH AVE	STRGHT W 08	(NONE) (04)	N UNKNOWN	N N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT W E	01	DRVR	NONE	49	F	OR-Y OR<25		016,026	000 038		27 00 27
															02	NONE 0 PRVTE PSNGR CAR	STOP W E	01	DRVR	INJC	52	M	OR-Y OR<25		000	011 000		00 00
02099 NO RPT	N	N	N			04/17/2005 Sun 4P	16 250	SW NYBERG RD SW 65TH AVE	ALLEY W 08	(NONE) (04)	N UNKNOWN	N N N	RAIN WET DAY	ANGL-OTH TURN INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT W E	01	DRVR	NONE	59	M	OR-Y OR<25		000	000 000		02 00 00

CITY OF TUALATIN, WASHINGTON COUNTY

SW Nyberg Road/Street between Pacific Hwy (Hwy 1, Route I-5) NB off ramp and SW 65th Avenue in Tualatin

1-1-2003 through 12-31-2007

SER# / INVEST	SPEC	ALC	DRUG	SCHL	SWRK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
															02	NONE 0 PRVTE PSNGR CAR	TURN-L S W	01	DRVR	INJC	19	M	OR-Y OR<25		028	018 000		00 02
00943 CITY	N	N	N			02/02/2003 Sun 9P	16 999	SW NYBERG RD SW 65TH AVE	ALLEY W 08	(NONE) (05)	N L-GRN-SIG	N N	RAIN WET DLIT	O-1TURN TURN PDO	01	NONE PRVTE PSNGR CAR	TURN-L E S	01	DRVR	NONE	20	F	OR-Y OR<25		004	019 000		08 00 08
															02	NONE PRVTE PSNGR CAR	STRGHT W E	01	DRVR	NONE	20	M	NONE OR<25		000	000 000		00 00

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

SW 65th Avenue at SW Nyberg Street in Tualatin
1-1-2003 through 12-31-2007

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2005														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2005 TOTAL	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR: 2004														
PEDESTRIAN	0	1	0	1	0	2	0	1	0	1	0	1	0	0
REAR-END	0	1	2	3	0	1	0	1	2	3	0	3	0	0
2004 TOTAL	0	2	2	4	0	3	0	2	2	4	0	4	0	0
YEAR: 2003														
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	1	0	1	0	0
2003 TOTAL	0	1	0	1	0	1	0	1	0	1	0	1	0	0
FINAL TOTAL	0	3	3	6	0	4	0	4	2	6	0	6	0	0

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF TUALATIN, CLACKAMAS COUNTY

SW 65th Avenue at SW Nyberg Street in Tualatin
1-1-2003 through 12-31-2007

SER# / INVEST	SPEC	ALC	DRUG	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
03589	N	N	N			07/12/2003	17	NYBERG ST	INTER		N	N	CLR	O-1TURN	01	NONE 0	TURN-L										02
NO RPT						Sat	0	SW 65TH AVE	CN		STOP SIGN	N	DRY	TURN		PRVTE	N E									000	00
						9A			04	99		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	57	M	OR-Y		004,028	038		02
																							OR<25				
															02	NONE 0	STRGHT										
																PRVTE	S N									000	00
																MTRCYCLE		01	DRVR	INJC	50	M	OR-Y		000	000	00
																							OR<25				

CITY OF TUALATIN, WASHINGTON COUNTY

SW 65th Avenue at SW Nyberg Street in Tualatin
1-1-2003 through 12-31-2007

SER# / INVEST	SPEC	ALC	DRUG	SCHL	WORK	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
01660	N	N	N			03/29/2005	16	SW NYBERG RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						Tue	0	SW 65TH AVE	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E W										000	00
						3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK		026		000	07
																							UNK					
															02	NONE 0	STOP											
																PRVTE	E W										011	00
																PSNGR CAR		01	DRVR	NONE	27	M	OR-Y		000		000	00
																							OR<25					
06349	N	N	N			10/22/2004	16	SW NYBERG RD	INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE						Fri	0	SW 65TH AVE	S		TRF SIGNAL	N	WET	REAR		PRVTE	S N										000	00
						6P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		026		000	07
																							OR>25					
															02	NONE 0	STOP											
																PRVTE	S N										011	00
																PSNGR CAR		01	DRVR	NONE	18	F	OTH-Y		000		000	00
																							N-RES					
06658	Y	N	N			11/02/2004	16	SW NYBERG RD	INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											01
NONE						Tue	0	SW 65TH AVE	S		TRF SIGNAL	N	WET	REAR		PRVTE	E W										000	00
						12P			06	99		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y		047,026		000	01
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	E W										011	00
																PSNGR CAR		01	DRVR	INJC	31	F	OR-Y		000		000	00
																							OR<25					
06216	N	N	N			10/19/2004	17	SW NYBERG RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						Tue	0	SW 65TH AVE	W		TRF SIGNAL	N	DRY	REAR		PRVTE	W E										000	00
						12P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	33	M	OR-Y		026		000	07
																							OR<25					
															02	NONE 0	STOP											
																PRVTE	W E										011	00
																PSNGR CAR		01	DRVR	NONE	62	M	OR-Y		000		000	00
																							OR<25					
03339	N	N	N		N	06/17/2004	16	SW NYBERG RD	INTER	3-LEG	N	N	CLR	PED	01	NONE	TURN-R											02
CITY						Thu	0	SW 65TH AVE	CN		TRF SIGNAL	N	DRY	PED		PRVTE	S E										016	00
						6P			04	99		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	22	F	OR-Y		029		000	02
																							OR<25					
																	STRGHT	01	PED	INJB	22	F		01	000		035	00
																	N S											
																	STRGHT	02	PED	INJB	22	M		01	000		035	00
																	N S											

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS & REPORTING UNIT
65th/Borland

SER# / INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	FC CLASS / COMPONENT / MLG TYPE / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT TYP (MEDIAN) / LEGS (#LANES)	INT-REL / DIST F / ISCT / TRAF-CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURFACE / LIGHT	CRASH / COLL / SVRTY	V #	VEHICLE USE-TRLR / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE / SFTY EQUIP
00513	N	N	N	N	N	1/27/2003	Clackamas	16		INTER	3-LEG	No	No	CLR	S-1STOP														
NONE						Mon	Tualatin		SW BORLAND RD	5		0	No	WET	REAR														
						3P	PORTLAND UA		SW 65TH AVE	05	0	TRF SIGNAL	No	DAY	PDO														
																1	NONE	0 STRGHT											07
																	PRVTE	S N									NONE		00
																	PSNGR C		1	DRVR	NONE	55	2	OR-Y		026	NONE		07
																								OR<25					BELT
																2	NONE	0 STOP											07
																	PRVTE	S N									STOPPED		00
																	PSNGR C		1	DRVR	NONE	37	1	OR-Y		000	NONE		00
																								OR<25					BELT
02351	N	N	N	N	N	5/13/2003	Clackamas	17		STRGHT		No	No	CLR	S-1STOP														
NONE						Tue	Tualatin		SW BORLAND RD	1	NONE	150	No	DRY	REAR														
						7P	PORTLAND UA		SW 65TH AVE	03	2	NONE	No	DAY	PDO														
																1	NONE	0 TURN-L											08
																	PRVTE	W N									NONE		00
																	PSNGR C		1	DRVR	NONE	36	2	OR-Y		004 028	NONE		08
																								OR<25					BELT
																2	NONE	0 STRGHT											08
																	PRVTE	E W									NONE		00
																	PSNGR C		1	DRVR	NONE	48	2	OR-Y		000	NONE		00
																								OR<25					BELT
03138	N	N	N	N	N	6/24/2003	Clackamas	16		STRGHT		No	No	CLR	S-1STOP														
NONE						Tue	Tualatin		SW 65TH AVE	1	NONE	999	No	DRY	REAR														
						11A	PORTLAND UA		SW BORLAND RD	05	2	NONE	No	DAY	PDO														
																1	NONE	0 STRGHT											07
																	PRVTE	N S									NONE		00
																	PSNGR C		1	DRVR	NONE	35	1	OR-Y		000	NONE		07
																								OR<25					BELT
																2	NONE	0 STRGHT											07
																	PRVTE	N S									STOPPED		00
																	PSNGR C		1	DRVR	NONE	73	2	OR-Y		000	NONE		00
																								OR<25					UNK

SER# / INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	FC CLASS / COMPONENT / MLG TYPE / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT TYP (MEDIAN) / LEGS (#LANES)	INT-REL / DIST F ISCT / TRAF-CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURFACE / LIGHT	CRASH / COLL / SVRTY	V #	VEHICLE USE-TRLR / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE / SFTY EQUIP
06654	N	N	N	N	N	12/8/2003	Clackamas	16		INTER		No	No	CLR	ANGL-OTH														
NONE						Mon	Tualatin		BORLAND RD	9		0	No	DRY	ANGL														
						12P	PORTLAND UA		65TH AVE	04	99	UNKNOWN	No	DAY	PDO														
																1	NONE	0 STRGHT											02
																	PRVTE	W E									NONE		00
																	PSNGR C		1	DRVR	NONE	28	1	OR-Y		028	NONE		02
																								OR<25					BELT
																2	NONE	0 STRGHT											02
																	PRVTE	S N									NONE		00
																	PSNGR C		1	DRVR	NONE	19	2	OR-Y		000	NONE		00
																								OR<25					BELT
00050	N	N	N	N	N	1/2/2004	Clackamas	16		STRGHT		No	No	CLR	FIX OBJ														
NONE						Fri	Tualatin		65TH AVE	1	NONE	500	No	WET	FIX														
						8A	PORTLAND UA		BORLAND RD	01	2	UNKNOWN	No	DAY	PDO														
																1	NONE	0 STRGHT										043	01
																	PRVTE	S N									NONE	043	00
																	PSNGR C		1	DRVR	NONE	77	1	OR-Y		047	LOSTCTRL		01
																								OR<25					UNK
04811	N	N	N	N	N	11/11/2005	Clackamas	16		ALLEY		No	No	RAIN	ANGL-OTH														
CITY						Fri	Tualatin		65TH AVE	1	NONE	100	No	WET	ANGL														
						4P	PORTLAND UA		BORLAND RD	06	2	UNKNOWN	No	DAY	PDO														
																1	NONE	0 TURN-L											02
																	PRVTE	W N									NONE		00
																	PSNGR C		1	DRVR	NONE	25	1	OR-Y		028	NONE		02
																								OR<25					BELT
																2	NONE	0 STRGHT											02
																	PRVTE	N S									NONE		00
																	PSNGR C		1	DRVR	NONE	43	1	OR-Y		000	NONE		00
																								OR<25					BELT
02476	N	N	N	N	N	6/14/2006	Clackamas	17		ALLEY		No	No	CLR	ANGL-OTH														
CITY						Wed	Tualatin		65TH AVE	5	NONE	100	No	DRY	TURN														
						8A	PORTLAND UA		BORLAND RD	06	2	NONE	No	DAY	PDO														
																1	NONE	0 STRGHT											08 02 02
																	PRVTE	S N									NONE		00
																	PSNGR C		1	DRVR	NONE	51	2	OR-Y		000	NONE		00
																								OR<25					BELT
																2	NONE	0 TURN-L											08 02 02
																	PRVTE	N E									NONE		00
																	PSNGR C		1	DRVR	NONE	36	2	OR-Y		004 028	NONE		08 02
																								OR<25					BELT

65th/Borland

SER# INVEST	SPED	ALC	DRUGS	SCHL	WORK	DATE DAY TIME	COUNTY CITY URBAN AREA	FC CLASS COMPONENT MLG TYPE MILEPNT	CONN# FIRST STREET SECOND STREET	RD CHAR DIRECT LOCTN	INT TYP (MEDIAN) LEGS (#LANES)	INT-REL DIST F ISCT TRAF-CNTL	OFFRD RNDBT DRVWY	WTHR SURFACE LIGHT	CRASH COLL SVRTY	V #	VEHICLE USE-TRLR OWNER TYPE	MOVE FROM TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE SFTY EQUIP
04160	N	N	N	N	N	10/6/2006	Clackamas	16		STRGHT		No	No	RAIN	S-1STOP														
CITY						Fri	Tualatin		BORLAND RD	7	NONE	700	No	WET	REAR														
						2P	PORTLAND UA		65TH AVE	07	2	UNKNOWN	No	DAY	INJ														
																1	NONE	0 STRGHT											07
																	PRVTE	E W									NONE		00
																	PSNGR C		1	DRVR	NONE	19	2	OR-Y		026	NONE		07
																								OR<25					BELT
																2	NONE	0 STOP											07
																	PRVTE	E W									STOPPED	013	00
																	PSNGR C		1	DRVR	INJC	51	2	OR-Y		000	NONE		00
																								OR<25					BELT
																3	NONE	0 STOP											07
																	PRVTE	E W									STP/L TRN		00
																	PSNGR C		1	DRVR	NONE	55	2	OR-Y		000	NONE		00
																								OR<25					BELT
00149	N	N	N	N	N	1/8/2003	Washington	16		STRGHT		Yes	No	CLR	S-1STOP														
NONE						Wed	Tualatin		SW 65TH AVE	1	NONE	20	No	DRY	REAR														
						4P	PORTLAND UA		SW BORLAND RD	06	2	TRF SIGNAL	No	DUSK	PDO														
																1	NONE	STRGHT											27
																	PRVTE	N S									NONE		00
																	PSNGR C		1	DRVR	NONE	45	2	OR-Y		016 026	DISTRACT		27
																								OR<25					BELT
																2	NONE	STOP											27
																	PRVTE	N S									STP/L TRN		00
																	PSNGR C		1	DRVR	NONE	42	1	OR-Y		000	NONE		00
																								OR<25					BELT
03228	N	N	N	N	N	4/21/2003	Washington	17		INTER		No	No	CLR	S-1STOP														
CITY						Mon	Tualatin		SW BORLAND RD	9		0	No	DRY	REAR														
						1P	PORTLAND UA		SW 65TH AVE	01	99	STOP SIGN	No	DAY	PDO														
																1	NONE	0 STRGHT											07
																	PRVTE	E W									NONE		00
																	PSNGR C		1	DRVR	NONE	36	1	OR-Y		000	NONE		07
																								OR<25					BELT
																2	NONE	0 STRGHT											07
																	PRVTE	E W									NONE		00
																	PSNGR C		1	DRVR	NONE	79	1	OR-Y		000	NONE		00
																								OR<25					BELT

65th/Borland

SER# / INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	FC CLASS / COMPONENT / MLG TYPE / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT TYP (MEDIAN) / LEGS (#LANES)	INT-REL / DIST F ISCT / TRAF-CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURFACE / LIGHT	CRASH / COLL / SVRTY	V #	VEHICLE USE-TRLR / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE / SFTY EQUIP
04300 CITY	N	N	N	N	N	5/27/2003 Tue 2P	Washington Tualatin PORTLAND UA	16	SW BORLAND RD SW 65TH AVE	STRGHT 7 08	NONE 2	No 100 STOP SIGN	No No No	CLR DRY DAY	S-1STOP REAR INJ															
																1	NONE PRVTE PSNGR C	0 STRGHT W E	1	DRVR	NONE	35	2	OR-Y OR<25		026	NONE NONE		07 00 07 BELT
																2	NONE PRVTE PSNGR C	0 STRGHT W E	1	DRVR	INJC	41	2	OR-Y OR<25		000	NONE NONE		07 00 00 BELT
04763 NONE	N	N	N	N	N	8/17/2004 Tue 3P	Washington Tualatin PORTLAND UA	16	65TH AVE BORLAND RD	STRGHT 1 08	NONE 2	No 999 NONE	No No No	CLR DRY DAY	S-1STOP REAR PDO															
																1	NONE PRVTE PSNGR C	0 STRGHT N S	1	DRVR	NONE	25	2	SUSP OR<25		026	NONE NONE		07 00 07 UNK
																2	NONE PRVTE PSNGR C	STOP N S	1	DRVR	NONE	48	2	OR-Y OR<25		000	STOPPED NONE		07 00 00 BELT
07446 NO RPT	N	N	N	N	N	11/30/2005 Wed 12A	Washington Tualatin PORTLAND UA	16	BORLAND RD 65TH AVE	STRGHT 3 08	NONE 2	No 300 UNKNOWN	Yes No No	CLR DRY DLIT	FIX OBJ FIX PDO															
																1	NONE PRVTE PSNGR C	0 STRGHT E W	1	DRVR	NONE	50	1	OR-Y OR<25		047 080	SKIDDED LOSTCTRL	088 088	01 10 10 00 01 10 UNK
07871 CITY	N	N	N	N	N	12/17/2005 Sat 3P	Washington Tualatin PORTLAND UA	16	BORLAND RD 65TH AVE	INTER 9 02	0	No 0 TRF SIGNAL	No No No	CLR DRY DAY	ANGL-OTH ANGL PDO															
																1	NONE PRVTE PSNGR C	0 STRGHT E W	1	DRVR	NONE	63	1	OR-Y OR<25		028	NONE NONE		02 00 02 BELT
																2	NONE PRVTE PSNGR C	0 STRGHT S N	1	DRVR	NONE	28	1	OR-Y OR<25		000	NONE NONE		02 00 00 BELT

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS & REPORTING UNIT
65th/Borland

SER# / INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	FC CLASS / COMPONENT / MLG TYPE / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT TYP (MEDIAN) / LEGS (#LANES)	INT-REL / DIST F ISCT / TRAF-CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURFACE / LIGHT	CRASH / COLL / SVRTY	V #	VEHICLE / USE-TRLR / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE / SFTY EQUIP
08225	N	N	N	N	N	12/29/2005	Washington	16		CURVE		No	No	CLR	S-STRGHT														
NONE						Thu	Tualatin		BORLAND RD	3	NONE	250	No	DRY	SS-O														
						9A	PORTLAND UA		65TH AVE	08	2	UNKNOWN	No	DAY	PDO														
																1	NONE	0 STRGHT											10
																	PRVTE	W E									NONE		00
																	PSNGR C		1	DRVR	NONE	62	2	UNK	080		NONE		10
																								OR<25					UNK
																2	NONE	0 STRGHT											10
																	PRVTE	E W									NONE		00
																	PSNGR C		1	DRVR	NONE	00	1	UNK	000		NONE		00
																								OR<25					UNK
01795	N	N	N	N	N	3/31/2006	Washington	17		INTER	CROSS	No	No	CLD	ANGL-OTH														
CITY						Fri	Tualatin		BORLAND RD	9		0	No	WET	ANGL														
						8A	PORTLAND UA		65TH AVE	02	99	TRF SIGNAL	No	DAY	INJ														
																1	NONE	STRGHT											04
																	PRVTE	S N									NONE		00
																	PSNGR C		1	DRVR	INJC	31	1	OR-Y	020		NONE		04
																								OR<25					BELT
																2	NONE	STRGHT											04
																	PRVTE	E W									NONE		00
																	PSNGR C		1	DRVR	INJC	41	2	OR-Y	000		NONE		00
																								OR<25					BELT

65th/Borland

SER# / INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	FC CLASS / COMPONENT / MLG TYPE / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT TYP (MEDIAN) / LEGS (#LANES)	INT-REL / DIST F ISCT / TRAF-CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURFACE / LIGHT	CRASH / COLL / SVRTY	V #	VEHICLE USE-TRLR / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE / SFTY EQUIP
02076	N	N	N	N	N	4/11/2006	Washington	17		INTER	CROSS	No	No	RAIN	O-1TURN														
CITY						Tue	Tualatin		BORLAND RD	9		0	No	WET	TURN														
						8P	PORTLAND UA		65TH AVE	04	99	STOP SIGN	No	DLIT	INJ														
																1	NONE	STRGHT											02
																	PRVTE	S N									NONE		00
																	PSNGR C		1	DRVR	INJB	24	1	OR-Y		000	NONE		00
																								OR<25					BELT
																1	NONE	STRGHT											02
																	PRVTE	S N									NONE		00
																	PSNGR C		2	PSNG	INJB	23	1			000	NONE		00
																													BELT
																2	NONE	TURN-L											02
																	PRVTE	N E									NONE		00
																	PSNGR C		1	DRVR	NONE	51	2	OR-Y		004 028	NONE		02
																								OR<25					BELT
																2	NONE	TURN-L											02
																	PRVTE	N E									NONE		00
																	PSNGR C		2	PSNG	INJB	59	1			000	NONE		00
																													BELT
																2	NONE	TURN-L											02
																	PRVTE	N E									NONE		00
																	PSNGR C		3	PSNG	INJB	10	2			000	NONE		00
																													BELT
																2	NONE	TURN-L											02
																	PRVTE	N E									NONE		00
																	PSNGR C		4	PSNG	INJB	06	2			000	NONE		00
																													BELT
04333	N	N	N	N	N	7/26/2006	Washington	16		ALLEY		No	Yes	CLR	BIKE														
CITY						Wed	Tualatin		65TH AVE	5	NONE	1000	No	DRY	ANGL														
						6P	PORTLAND UA		BORLAND RD	07	2	NONE	No	DAY	INJ														
																1	NONE	0 TURN-R											02
																	PRVTE	W S									EXIT DWY		00
																	PSNGR C		1	DRVR	NONE	49	1	OR-Y		028	NONE		02
																								OR<25					BELT

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS & REPORTING UNIT
65th/Borland

SER# / INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	FC CLASS / COMPONENT / MLG TYPE / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT TYP (MEDIAN) / LEGS (#LANES)	INT-REL / DIST F ISCT / TRAF-CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURFACE / LIGHT	CRASH / COLL / SVRTY	V #	VEHICLE / USE-TRLR / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE / SFTY EQUIP
04875	N	N	N	N	N	8/22/2006	Washington	17		ALLEY		No	No	CLR	O-1TURN														
CITY						Tue	Tualatin		65TH AVE	1	NONE	50	No	DRY	TURN														
						5P	PORTLAND UA		BORLAND RD	05	2	NONE	No	DAY	PDO														
																1	NONE	STRGHT											02
																	PRVTE	S N									NONE		00
																	PSNGR C		1	DRVR	NONE	37	2	OR-Y		000	NONE		00
																								OR<25					BELT
																2	NONE	TURN-L											02
																	PRVTE	N E									ENTR DWY		00
																	PSNGR C		1	DRVR	NONE	26	2	OR-Y		004 028	NONE		02
																								OR<25					BELT
07515	N	N	N	N	N	12/8/2006	Washington	16		STRGHT		Yes	No	CLR	S-1STOP														
NONE						Fri	Tualatin		65TH AVE	1	NONE	200	No	DRY	REAR														
						4P	PORTLAND UA		BORLAND RD	08	2	UNKNOWN	No	DUSK	INJ														
																1	NONE	9 STRGHT											07
																	PRVTE	N S									NONE		00
																	PSNGR C		1	DRVR	NONE	00	1	OR-Y		026	NONE		07
																								OR<25					UNK
																2	NONE	0 STOP											07
																	PRVTE	N S									STOPPED		00
																	PSNGR C		1	DRVR	INJC	49	1	OR-Y		000	NONE		00
																								OR<25					BELT

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS & REPORTING UNIT

SW 57th Ave/SW Borland Rd

SER# / INVEST	SPED	ALC	DRUGS	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	FC CLASS / COMPONENT / MLG TYPE / MILEPNT	CONN# / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT TYP (MEDIAN) / LEGS (#LANES)	INT-REL / DIST F ISCT / TRAF-CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURFACE / LIGHT	CRASH / COLL / SVRTY	V #	VEHICLE USE-TRLR / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE / SFTY EQUIP
03963	N	N	N	N	N	9/21/2005	Clackamas	16		STRGHT		No	No	CLR	S-1STOP														
CITY						Wed	Tualatin		BORLAND RD	7	NONE	50	No	DRY	REAR														
						7A	PORTLAND UA		57TH ST	03	2	TRF SIGNAL	No	DAY	INJ														
																1	NONE	0 STRGHT											07
																	PRVTE	W E									NONE		00
																	PSNGR C		1	DRVR	INJB	22	2	OR-Y		026	NONE		07
																								OR<25					BELT
																2	NONE	0 STOP											07
																	PRVTE	W E									STOPPED		00
																	PSNGR C		1	DRVR	NONE	21	1	OR-Y		000	NONE		00
																								OR<25					BELT

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS & REPORTING UNIT
Wilke/Borland

SER# INVEST	SPEED	ALC	DRUGS	SCHL	WORK	DATE DAY TIME	COUNTY CITY URBAN AREA	FC CLASS COMPONENT MLG TYPE MILEPNT	CONN# FIRST STREET SECOND STREET	RD CHAR DIRECT LOCTN	INT TYP (MEDIAN) LEGS (#LANES)	INT-REL DIST F ISCT TRAF-CNTL	OFFRD RNDBT DRVWY	WTHR SURFACE LIGHT	CRASH COLL SVRTY	V #	VEHICLE USE-TRLR OWNER TYPE	MOVE FROM TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE SFTY EQUIP
05175	Y	N	N	N	N	9/28/2003	Clackamas	16		CURVE		No	Yes	CLR	FIX OBJ														
NONE						Sun	Tualatin		WILKE RD	3	NONE	200	No	DRY	FIX														
						11A	PORTLAND UA		BORLAND RD	05	2	NONE	No	DAY	INJ														
																1	NONE	0 STRGHT									040 053 088	01
																	PRVTE	W E								NONE	040 053 088	00
																	PSNGR C		1	DRVR	INJC	16	1	OR-Y		047 081	LOSTCTRL		01
																								OR<25					BELT
01586	Y	N	N	N	N	5/2/2004	Clackamas	17		STRGHT		No	Yes	CLR	FIX OBJ														
NONE						Sun	Tualatin		WILKE RD	1	NONE	150	No	DRY	FIX														
						11A	PORTLAND UA		BORLAND RD	01	2	NONE	No	DAY	INJ														
																1	NONE	0 TURN-R									040 062	01
																	PRVTE	N W								NONE	040 062	00
																	PSNGR C		1	DRVR	NONE	17	2	OR-Y		047 080 051	NONE		01
																								OR<25					BELT
																1	NONE	0 TURN-R									040 062	01
																	PRVTE	N W								NONE	040 062	00
																	PSNGR C		2	PSNG	INJB	17	2			000	NONE		00
																													BELT
00745	N	Y	N	N	N	2/17/2005	Clackamas	17		CURVE		No	Yes	CLD	FIX OBJ														
CITY						Thu	Tualatin		BORLAND RD	3	NONE	600	No	DRY	FIX														
						12P	PORTLAND UA		WILKE RD	01	2	NONE	No	DAY	PDO														
																1	NONE	0 STRGHT									079 088	10
																	PRVTE	W E								NONE	079 088	00
																	PSNGR C		1	DRVR	NONE	27	1	OR Y		047 080 081	FATIGUE		10
																								OR<25					BELT

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
000	NONE	NO ACTION OR NON-WARRANTED
001	SKIDDED	SKIDDED
002	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE
003	LOAD OVR	OVERHANGING LOAD STRUCK ANOTHER VEHICLE, ETC.
006	SLOW DN	SLOWED DOWN
007	AVOIDING	AVOIDING MANEUVER
008	PAR PARK	PARALLEL PARKING
009	ANG PARK	ANGLE PARKING
010	INTERFERE	PASSENGER INTERFERING WITH DRIVER
011	STOPPED	STOPPED IN TRAFFIC NOT WAITING TO MAKE A LEFT TURN
012	STP/L TRN	STOPPED BECAUSE OF LEFT TURN SIGNAL OR WAITING, ETC.
013	STP TURN	STOPPED WHILE EXECUTING A TURN
015	GO A/STOP	PROCEED AFTER STOPPING FOR A STOP SIGN/FLASHING RED.
016	TRN A/RED	TURNED ON RED AFTER STOPPING
017	LOSTCTRL	LOST CONTROL OF VEHICLE
018	EXIT DWY	ENTERING STREET OR HIGHWAY FROM ALLEY OR DRIVEWAY
019	ENTR DWY	ENTERING ALLEY OR DRIVEWAY FROM STREET OR HIGHWAY
020	STR ENTR	BEFORE ENTERING ROADWAY, STRUCK PEDESTRIAN, ETC. ON SIDEWALK OR SHOULDER
021	NO DRVR	CAR RAN AWAY - NO DRIVER
022	PREV COL	STRUCK, OR WAS STRUCK BY, VEHICLE OR PEDESTRIAN IN PRIOR COLLISION BEFORE ACC. STABILIZED
023	STALLED	VEHICLE STALLED
024	DRVR DEAD	DEAD BY UNASSOCIATED CAUSE
025	FATIGUE	FATIGUED, SLEEPY, ASLEEP
026	SUN	DRIVER BLINDED BY SUN
027	HDLGHTS	DRIVER BLINDED BY HEADLIGHTS
028	ILLNESS	PHYSICALLY ILL
029	THRU MED	VEHICLE CROSSED, PLUNGED OVER, OR THROUGH MEDIAN BARRIER
030	PURSUIT	PURSUING OR ATTEMPTING TO STOP ANOTHER VEHICLE
031	PASSING	PASSING SITUATION
032	PRKOFFRD	VEHICLE PARKED BEYOND CURB OR SHOULDER
033	CROS MED	VEHICLE CROSSED EARTH OR GRASS MEDIAN
034	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
035	X W/ SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
036	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
037	BTWN INT	CROSSING BETWEEN INTERSECTIONS
038	DISTRACT	DRIVER'S ATTENTION DISTRACTED
039	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
040	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
041	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
042	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
043	PLAYINRD	PLAYING IN STREET OR ROAD
044	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
045	WORK ON	WORKING IN ROADWAY OR ALONG SHOULDER
050	LAY ON RD	STANDING OR LYING IN ROADWAY
051	ENT OFFRD	ENTERING / STARTING IN TRAFFIC LANE FROM OFF-ROAD
088	OTHER	OTHER ACTION
099	UNK	UNKNOWN ACTION

CAUSE CODE TRANSLATION LIST

CAUSE CODE	SHORT DESCRIPTION	LONG DESCRIPTION
00	NO CODE	NO CAUSE ASSOCIATED AT THIS LEVEL
01	TOO-FAST	TOO FAST FOR CONDITIONS (NOT EXCEED POSTED SPEED
02	NO-YIELD	DID NOT YIELD RIGHT-OF-WAY
03	PAS-STOP	PASSED STOP SIGN OR RED FLASHER
04	DIS--RAG	DISREGARDED R-A-G TRAFFIC SIGNAL.
05	LEFT-CTR	DROVE LEFT OF CENTER ON TWO-WAY ROAD
06	IMP-OVER	IMPROPER OVERTAKING
07	TOO-CLOS	FOLLOWED TOO CLOSELY
08	IMP-TURN	MADE IMPROPER TURN
09	DRINKING	ALCOHOL OR DRUG INVOLVED
10	OTHR-IMP	OTHER IMPROPER DRIVING
11	MECH-DEF	MECHANICAL DEFECT
12	OTHER	OTHER (NOT IMPROPER DRIVING)
13	IMP LN C	IMPROPER CHANGE OF TRAFFIC LANES
14	DIS TCD	DISREGARDED OTHER TRAFFIC CONTROL DEVICE
15	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY
16	FATIGUE	DRIVER DROWSY/FATIGUED/SLEEPY
18	IN RDWY	NON-MOTORIST ILLEGALLY IN ROADWAY
19	NT VISBL	NON-MOTORIST CLOTHING NOT VISIBLE
20	IMP PKNG	VEHICLE IMPROPERLY PARKED
21	DEF STER	DEFECTIVE STEERING MECHANISM
22	DEF BRKE	INADEQUATE OR NO BRAKES
24	LOADSHFT	VEHICLE LOST LOAD OR LOAD SHIFTED
25	TIREFAIL	TIRE FAILURE
26	PHANTOM	PHANTOM / NON-CONTACT VEHICLE
27	INATTENT	INATTENTION
30	SPEED	DRIVING IN EXCESS OF POSTED SPEED
31	RACING	SPEED RACING (PER PAR)
32	CARELESS	CARELESS DRIVING (CITATION ISSUED)
33	RECKLESS	RECKLESS DRIVING (CITATION ISSUED)
34	AGGRESV	AGGRESSIVE DRIVING (PER PAR)
35	RD RAGE	ROAD RAGE (PER PAR)

COLLISION TYPE CODE TRANSLATION LIST

COLL CODE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OTH	MISCELLANEOUS
-	BACK	BACKING
0	PED	PEDESTRIAN
1	ANGL	ANGLE
2	HEAD	HEAD-ON
3	REAR	REAR-END
4	SS-M	SIDESWIPE - MEETING
5	SS-O	SIDESWIPE - OVERTAKING
6	TURN	TURNING MOVEMENT
7	PARK	PARKING MANEUVER
8	NCOL	NON-COLLISION
9	FIX	FIXED OBJECT OR OTHER OBJECT

CRASH TYPE CODE TRANSLATION LIST

CRASH TYPE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OVERTURN	OVERTURNED
0	NON-COLL	OTHER NON-COLLISION
1	OTH RDWY	MOTOR VEHICLE ON OTHER ROADWAY
2	PRKD MV	PARKED MOTOR VEHICLE
3	PED	PEDESTRIAN
4	TRAIN	RAILWAY TRAIN
6	BIKE	PEDALCYCLIST
7	ANIMAL	ANIMAL
8	FIX OBJ	FIXED OBJECT
9	OTH OBJ	OTHER OBJECT
A	ANGL-STP	ENTERING AT ANGLE - ONE VEHICLE STOPPED
B	ANGL-OTH	ENTERING AT ANGLE - ALL OTHERS
C	S-STRGHT	FROM SAME DIRECTION - BOTH GOING STRAIGHT
D	S-1TURN	FROM SAME DIRECTION - ONE TURN, ONE STRAIGHT
E	S-1STOP	FROM SAME DIRECTION - ONE STOPPED
F	S-OTHER	FROM SAME DIRECTION-ALL OTHERS, INCLUDING PARKING
G	O-STRGHT	FROM OPPOSITE DIRECTION - BOTH GOING STRAIGHT
H	O-1TURN	FROM OPPOSITE DIRECTION - ONE TURN, ONE STRAIGHT
I	O-1STOP	FROM OPPOSITE DIRECTION - ONE STOPPED
J	O-OTHER	FROM OPPOSITE DIRECTION-ALL OTHERS INCL. PARKING

DRIVER LICENSE CODE TRANSLATION LIST

LIC CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NOT LICENSED (HAD NEVER BEEN LICENSED)
1	OR-Y	VALID OREGON LICENSE
2	OTH-Y	VALID LICENSE, OTHER STATE OR COUNTRY
3	SUSP	SUSPENDED/REVOKED

DRIVER RESIDENCE CODE TRANSLATION LIST

RES CODE	SHORT DESC	LONG DESCRIPTION
1	OR<25	OREGON RESIDENT WITHIN 25 MILE OF HOME
2	OR>25	OREGON RESIDENT 25 OR MORE MILES FROM HOME
3	OR-?	OREGON RESIDENT - UNKNOWN DISTANCE FROM HOME
4	N-RES	NON-RESIDENT
9	UNK	UNKNOWN IF OREGON RESIDENT

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
000	NONE	NO ERROR
001	WIDE TRN	WIDE TURN
002	CUT CORN	CUT CORNER ON TURN
003	FAIL TRN	FAILED TO OBEY MANDATORY TRAFFIC TURN SIGNAL, SIGN OR LANE MARKINGS
004	L IN TRF	LEFT TURN IN FRONT OF ONCOMING TRAFFIC
005	L PROHIB	LEFT TURN WHERE PROHIBITED
006	FRM WRNG	TURNED FROM WRONG LANE
007	TO WRONG	TURNED INTO WRONG LANE
008	ILLEG U	U-TURNED ILLEGALLY
009	IMP STOP	IMPROPERLY STOPPED IN TRAFFIC LANE
010	IMP SIG	IMPROPER SIGNAL OR FAILURE TO SIGNAL
011	IMP BACK	BACKING IMPROPERLY (NOT PARKING)
012	IMP PARK	IMPROPERLY PARKED
013	UNPARK	IMPROPER START LEAVING PARKED POSITION
014	IMP STRT	IMPROPER START FROM STOPPED POSITION
015	IMP LGHT	IMPROPER OR NO LIGHTS (VEHICLE IN TRAFFIC)
016	INATTENT	FAILED TO DIM LIGHTS (UNTIL 4/1/97) / INATTENTION (AFTER 4/1/97)
017	UNSF VEH	DRIVING UNSAFE VEHICLE (NO OTHER ERROR APPARENT)
018	OTH PARK	ENTERING, EXITING PARKED POSITION WITH INSUFFICIENT CLEARANCE OR OTHER IMPROPER PARKING MANEUVER
019	DIS DRIV	DISREGARDED OTHER DRIVER'S SIGNAL
020	DIS SGNL	DISREGARDED TRAFFIC SIGNAL
021	RAN STOP	DISREGARDED STOP SIGN OR FLASHING RED
022	DIS SIGN	DISREGARDED WARNING SIGN, FLARES OR FLASHING AMBER
023	DIS OFCR	DISREGARDED POLICE OFFICER OR FLAGMAN
024	DIS EMER	DISREGARDED SIREN OR WARNING OF EMERGENCY VEHICLE
025	DIS RR	DISREGARDED RR SIGNAL, RR SIGN, OR RR FLAGMAN
026	REAR-END	FAILED TO AVOID STOPPED OR PARKED VEHICLE AHEAD OTHER THAN SCHOOL BUS
027	BIKE ROW	DID NOT HAVE RIGHT-OF-WAY OVER PEDALCYCLIST
028	NO ROW	DID NOT HAVE RIGHT-OF-WAY
029	PED ROW	FAILED TO YIELD RIGHT-OF-WAY TO PEDESTRIAN
030	PAS CURV	PASSING ON A CURVE
031	PAS WRNG	PASSING ON THE WRONG SIDE
032	PAS TANG	PASSING ON STRAIGHT ROAD UNDER UNSAFE CONDITIONS
033	PAS X-WK	PASSED VEHICLE STOPPED AT CROSSWALK FOR PEDESTRIAN
034	PAS INTR	PASSING AT INTERSECTION
035	PAS HILL	PASSING ON CREST OF HILL
036	N/PAS ZN	PASSING IN "NO PASSING" ZONE
037	PAS TRAF	PASSING IN FRONT OF ONCOMING TRAFFIC
038	CUT-IN	CUTTING IN (TWO LANES - TWO WAY ONLY)
039	WRNGSIDE	DRIVING ON WRONG SIDE OF THE ROAD
040	THRU MED	DRIVING THROUGH SAFETY ZONE OR OVER ISLAND
041	F/ST BUS	FAILED TO STOP FOR SCHOOL BUS

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
042	F/SLO MV	FAILED TO DECREASE SPEED FOR SLOWER MOVING VEHICLE
043	TO CLOSE	FOLLOWING TOO CLOSELY (MUST BE ON OFFICER'S REPORT)
044	STRDL LN	STRADDLING OR DRIVING ON WRONG LANES
045	IMP CHG	IMPROPER CHANGE OF TRAFFIC LANES
046	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY (VEHICLE IS DELIBERATELY TRAVELING ON WRONG SIDE)
047	BASCRULE	DRIVING TOO FAST FOR CONDITIONS (NOT EXCEEDING POSTED SPEED)
048	OPN DOOR	OPENED DOOR INTO ADJACENT TRAFFIC LANE
049	IMPEDING	IMPEDING TRAFFIC
050	SPEED	DRIVING IN EXCESS OF POSTED SPEED
051	RECKLESS	RECKLESS DRIVING (PER PAR)
052	CARELESS	CARELESS DRIVING (PER PAR)
053	RACING	SPEED RACING (PER PAR)
054	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
055	X W/SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
056	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
057	BTWN INT	CROSSING BETWEEN INTERSECTIONS
059	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
060	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
061	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
062	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
063	PLAYINRD	PLAYING IN STREET OR ROAD
064	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
065	WK IN RD	WORKING IN ROADWAY OR ALONG SHOULDER
070	LAYON RD	STANDING OR LYING IN ROADWAY
073	DIS POL	DISREGARDING POLICE (ELUDING)
080	FAIL LN	FAILED TO MAINTAIN LANE
081	OFF RD	RAN OFF ROAD
082	NO CLEAR	DRIVER MISJUDGED CLEARANCE
083	OVRSTEER	OVER CORRECTING
084	NOT USED	CODE NOT IN USE
085	OVRLOAD	OVERLOADING OR IMPROPER LOADING OF VEHICLE WITH CARGO OR PASSENGERS
097	UNA DIS TC	UNABLE TO DETERMINE WHICH DRIVER DISREGARDED TRAFFIC CONTROL DEVICE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
001	FEL/JUMP	OCCUPANT FELL, JUMPED OR WAS EJECTED FROM MOVING VEHICLE
002	INTERFER	PASSENGER INTERFERED WITH DRIVER
003	BUG INTF	ANIMAL OR INSECT IN VEHICLE INTERFERED WITH DRIVER
004	PED INV	PEDESTRIAN INVOLVED (NON-PEDESTRIAN ACCIDENT)
005	SUB-PED	"SUB-PED": PEDESTRIAN INJURED SUBSEQUENT TO COLLISION, ETC.
006	BIKE INV	TRICYCLE-BICYCLE INVOLVED
007	HITCHIKR	HITCHHIKER (SOLICITING A RIDE)
008	PSNGR TOW	PASSENGER BEING TOWED OR PUSHED ON CONVEYANCE
009	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE (OCCUPANTS ONLY)
010	SUB OTRN	OVERTURNED AFTER FIRST HARMFUL EVENT
011	MV PUSHD	VEHICLE BEING PUSHED
012	MV TOWED	VEHICLE TOWED OR HAD BEEN TOWING ANOTHER VEHICLE
013	FORCED	VEHICLE FORCED BY IMPACT INTO ANOTHER VEHICLE, PEDALCYCLIST OR PEDESTRIAN
014	SET MOTN	VEHICLE SET IN MOTION BY NON-DRIVER (CHILD RELEASED BRAKES, ETC.)
015	RR ROW	AT OR ON RAILROAD RIGHT-OF-WAY (NOT LIGHT RAIL)
016	LT RL ROW	AT OR ON LIGHT-RAIL RIGHT-OF-WAY
017	RR HIT V	TRAIN STRUCK VEHICLE
018	V HIT RR	VEHICLE STRUCK TRAIN
019	HIT RR CAR	VEHICLE STRUCK RAILROAD CAR ON ROADWAY
020	JACKNIFE	JACKKNIFE; TRAILER OR TOWED VEHICLE STRUCK TOWING VEHICLE
021	TRL OTRN	TRAILER OR TOWED VEHICLE OVERTURNED
022	CN BROKE	TRAILER CONNECTION BROKE
023	DETACH TRL	DETACHED TRAILING OBJECT STRUCK OTHER VEHICLE, NON-MOTORIST, OR OBJECT
024	V DOOR OPN	VEHICLE DOOR OPENED INTO ADJACENT TRAFFIC LANE
025	WHEELOFF	WHEEL CAME OFF
026	HOOD UP	HOOD FLEW UP
028	LOAD SHIFT	LOST LOAD, LOAD MOVED OR SHIFTED
029	TIREFAIL	TIRE FAILURE
030	PET	PET: CAT, DOG AND SIMILAR
031	LVSTOCK	STOCK: COW, CALF, BULL, STEER, SHEEP, ETC.
032	HORSE	HORSE, MULE, OR DONKEY
033	HRSE&RID	HORSE AND RIDER
034	GAME	WILD ANIMAL, GAME (INCLUDES BIRDS; NOT DEER OR ELK)
035	DEER ELK	DEER OR ELK, WAPITI
036	ANML VEH	ANIMAL-DRAWN VEHICLE
037	CULVERT	CULVERT, OPEN LOW OR HIGH MANHOLE
038	ATENUATN	IMPACT ATTENUATOR
039	PK METER	PARKING METER
040	CURB	CURB (ALSO NARROW SIDEWALKS ON BRIDGES)
041	JIGGLE	JIGGLE BARS OR TRAFFIC SNAKE FOR CHANNELIZATION
042	GDRL END	LEADING EDGE OF GUARDRAIL
043	GARDRAIL	GUARD RAIL (NOT METAL MEDIAN BARRIER)
044	BARRIER	MEDIAN BARRIER (RAISED OR METAL)
045	WALL	RETAINING WALL OR TUNNEL WALL
046	BR RAIL	BRIDGE RAILING (ON BRIDGE AND APPROACH)
047	BR ABUT	BRIDGE ABUTMENT (APPROACH ENDS)
048	BR COLMN	BRIDGE PILLAR OR COLUMN (EVEN THOUGH STRUCK PROTECTIVE GUARD RAIL FIRST)
049	BR GIRDR	BRIDGE GIRDER (HORIZONTAL STRUCTURE OVERHEAD)
050	ISLAND	TRAFFIC RAISED ISLAND
051	GORE	GORE
052	POLE UNK	POLE - TYPE UNKNOWN
053	POLE UTL	POLE - POWER OR TELEPHONE
054	ST LIGHT	POLE - STREET LIGHT ONLY
055	TRF SGNL	POLE - TRAFFIC SIGNAL AND PED SIGNAL ONLY
056	SGN BRDG	POLE - SIGN BRIDGE
057	STOPSIGN	STOP OR YIELD SIGN
058	OTH SIGN	OTHER SIGN, INCLUDING STREET SIGNS
059	HYDRANT	HYDRANT

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
060	MARKER	DELINEATOR OR MARKER (REFLECTOR POSTS)
061	MAILBOX	MAILBOX
062	TREE	TREE, STUMP OR SHRUBS
063	VEG OHED	TREE BRANCH OR OTHER VEGETATION OVERHEAD, ETC.
064	WIRE/CBL	WIRE OR CABLE ACROSS OR OVER THE ROAD
065	TEMP SGN	TEMPORARY SIGN OR BARRICADE IN ROAD, ETC.
066	PERM SGN	PERMANENT SIGN OR BARRICADE IN/OFF ROAD
067	SLIDE	SLIDES, ROCKS OFF OR ON ROAD, FALLING ROCKS
068	FRGN OBJ	FOREIGN OBSTRUCTION/DEBRIS IN ROAD (NOT GRAVEL)
069	EQP WORK	EQUIPMENT WORKING IN/OFF ROAD
070	OTH EQP	OTHER EQUIPMENT IN OR OFF ROAD (INCLUDES PARKED TRAILER, BOAT)
071	MAIN EQP	WRECKER, STREET SWEEPER, SNOW PLOW OR SANDING EQUIPMENT
072	OTHER WALL	ROCK, BRICK OR OTHER SOLID WALL
073	IRRGL PVMT	SPEED BUMP, OTHER BUMP, POTHOLE OR PAVEMENT IRREGULARITY (PER PAR)
075	CAVE IN	BRIDGE OR ROAD CAVE IN
076	HI WATER	HIGH WATER
077	SNO BANK	SNOW BANK
078	HOLE	CHUCKHOLE IN ROAD, LOW OR HIGH SHOULDER AT PAVEMENT EDGE
079	DITCH	CUT SLOPE OR DITCH EMBANKMENT
080	OBJ F MV	STRUCK BY ROCK OR OTHER OBJECT SET IN MOTION BY OTHER VEHICLE (INCL. LOST LOADS)
081	FLY-OBJ	STRUCK BY OTHER MOVING OR FLYING OBJECT
082	VEH HID	VEHICLE OBSCURED VIEW
083	VEG HID	VEGETATION OBSCURED VIEW
084	BLDG HID	VIEW OBSCURED BY FENCE, SIGN, PHONE BOOTH, ETC.
085	WIND GUST	WIND GUST
086	IMMERSED	VEHICLE IMMERSED IN BODY OF WATER
087	FIRE/EXP	FIRE OR EXPLOSION
088	FENC/BLD	FENCE OR BUILDING, ETC.
089	OTH ACDT	ACCIDENT RELATED TO ANOTHER SEPARATE ACCIDENT
090	TO 1 SIDE	TWO-WAY TRAFFIC ON DIVIDED ROADWAY ALL ROUTED TO ONE SIDE
092	PHANTOM	OTHER (PHANTOM) NON-CONTACT VEHICLE (ON PAR OR REPORT)
093	CELL-POL	CELL PHONE (ON PAR OR DRIVER IN USE)
094	VIOL GDL	TEENAGE DRIVER IN VIOLATION OF GRADUATED LICENSE PGM
095	GUY WIRE	GUY WIRE
096	BERM	BERM (EARTHEN OR GRAVEL MOUND)
097	GRAVEL	GRAVEL IN ROADWAY
098	ABR EDGE	ABRUPT EDGE
099	CELL-WTN	CELL PHONE USE WITNESSED BY OTHER PARTICIPANT
100	UNK FIXD	UNKNOWN TYPE OF FIXED OBJECT
101	OTHER OBJ	OTHER OR UNKNOWN OBJECT, NOT FIXED
104	OUTSIDE V	PASSENGER RIDING ON VEHICLE EXTERIOR
105	PEDAL PSGR	PASSENGER RIDING ON PEDALCYCLE
106	MAN WHLCHR	PEDESTRIAN IN NON-MOTORIZED WHEELCHAIR
107	MTR WHLCHR	PEDESTRIAN IN MOTORIZED WHEELCHAIR
110	N-MTR	NON-MOTORIST STRUCK VEHICLE
111	S CAR VS V	STREET CAR/TROLLEY (ON RAILS AND/OR OVERHEAD WIRE SYSTEM) STRUCK VEHICLE
112	V VS S CAR	VEHICLE STRUCK STREET CAR/TROLLEY (ON RAILS AND/OR OVERHEAD WIRE SYSTEM)
113	S CAR ROW	AT OR ON STREET CAR/TROLLEY RIGHT-OF-WAY
114	RR EQUIP	VEHICLE STRUCK RAILROAD EQUIPMENT (NOT TRAIN) ON TRACKS
120	WIRE BAR	WIRE OR CABLE MEDIAN BARRIER
124	SLIPPERY	SLIDING OR SWERVING DUE TO WET, ICY, SLIPPERY OR LOOSE SURFACE
125	SHLDR	SHOULDER GAVE WAY

FUNCTIONAL CLASSIFICATION TRANSLATION LIST

FUNC CLASS	DESCRIPTION
01	RURAL PRINCIPAL ARTERIAL - INTERSTATE
02	RURAL PRINCIPAL ARTERIAL - OTHER
06	RURAL MINOR ARTERIAL
07	RURAL MAJOR COLLECTOR
08	RURAL MINOR COLLECTOR
09	RURAL LOCAL
11	URBAN PRINCIPAL ARTERIAL - INTERSTATE
12	URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXP
14	URBAN PRINCIPAL ARTERIAL - OTHER
16	URBAN MINOR ARTERIAL
17	URBAN COLLECTOR
19	URBAN LOCAL
78	UNKNOWN RURAL SYSTEM
79	UNKNOWN RURAL NON-SYSTEM
98	UNKNOWN URBAN SYSTEM
99	UNKNOWN URBAN NON-SYSTEM

HIGHWAY COMPONENT TRANSLATION LIST

CODE	DESCRIPTION
0	MAINLINE STATE HIGHWAY
1	COUPLET
3	FRONTAGE ROAD
6	CONNECTION
8	HIGHWAY - OTHER

INJURY SEVERITY CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
1	KILL	FATAL INJURY
2	INJA	INCAPACITATING INJURY - BLEEDING, BROKEN BONES
3	INJB	NON-INCAPACITATING INJURY
4	INJC	POSSIBLE INJURY - COMPLAINT OF PAIN
5	PRI	DIED PRIOR TO CRASH
7	NO<5	NO INJURY - 0 TO 4 YEARS OF AGE

LIGHT CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	DAY	DAYLIGHT
2	DLIT	DARKNESS - WITH STREET LIGHTS
3	DARK	DARKNESS - NO STREET LIGHTS
4	DAWN	DAWN (TWILIGHT)
5	DUSK	DUSK (TWILIGHT)

MEDIAN TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NO MEDIAN
1	RSDMD	SOLID MEDIAN BARRIER
2	DIVMD	EARTH, GRASS OR PAVED MEDIAN

MILEAGE TYPE CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
0	REGULAR MILEAGE
T	TEMPORARY
Y	SPUR
Z	OVERLAPPING

MOVEMENT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	STRGHT	STRAIGHT AHEAD
2	TURN-R	TURNING RIGHT
3	TURN-L	TURNING LEFT
4	U-TURN	MAKING A U-TURN
5	BACK	BACKING
6	STOP	STOPPED IN TRAFFIC
7	PRKD-P	PARKED - PROPERLY
8	PRKD-I	PARKED - IMPROPERLY

PEDESTRIAN LOCATION CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
00	AT INTERSECTION - NOT IN ROADWAY
01	AT INTERSECTION - INSIDE CROSSWALK
02	AT INTERSECTION - IN ROADWAY, OUTSIDE CROSSWALK
03	AT INTERSECTION - IN ROADWAY, XWALK AVAIL UNKNWN
04	NOT AT INTERSECTION - IN ROADWAY
05	NOT AT INTERSECTION - ON SHOULDER
06	NOT AT INTERSECTION - ON MEDIAN
07	NOT AT INTERSECTION - WITHIN TRAFFIC RIGHT-OF-WAY
08	NOT AT INTERSECTION - IN BIKE PATH
09	NOT-AT INTERSECTION - ON SIDEWALK
10	OUTSIDE TRAFFICWAY BOUNDARIES
15	NOT AT INTERSECTION - INSIDE MID-BLOCK CROSSWALK
18	OTHER, NOT IN ROADWAY
99	UNKNOWN LOCATION

ROAD CHARACTER CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	INTER	INTERSECTION
2	ALLEY	DRIVEWAY OR ALLEY
3	STRGHT	STRAIGHT ROADWAY
4	TRANS	TRANSITION
5	CURVE	CURVE (HORIZONTAL CURVE)
6	OPENAC	OPEN ACCESS OR TURNOUT
7	GRADE	GRADE (VERTICAL CURVE)
8	BRIDGE	BRIDGE STRUCTURE
9	TUNNEL	TUNNEL

PARTICIPANT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	OCC	UNKNOWN OCCUPANT TYPE
1	DRVR	DRIVER
2	PSNG	PASSENGER
3	PED	PEDESTRIAN
4	CONV	PEDESTRIAN USING A PEDESTRIAN CONVEYA
5	PTOW	PEDESTRIAN TOWING OR TRAILERING AN OB
6	BIKE	PEDALCYCLIST
7	BTOW	PEDALCYCLIST TOWING OR TRAILERING AN (
8	PRKD	OCCUPANT OF A PARKED MOTOR VEHICLE
9	UNK	UNKNOWN TYPE OF NON-MOTORIST

TRAFFIC CONTROL DEVICE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
000	NONE	NO CONTROL
001	TRF SIGNAL	TRAFFIC SIGNALS
002	FLASHBCN-R	FLASHING BEACON - RED (STOP)
003	FLASHBCN-A	FLASHING BEACON - AMBER (SLOW)
004	STOP SIGN	STOP SIGN
005	SLOW SIGN	SLOW SIGN
006	REG-SIGN	REGULATORY SIGN
007	YIELD	YIELD SIGN
008	WARNING	WARNING SIGN
009	CURVE	CURVE SIGN
010	SCHL X-ING	SCHOOL CROSSING SIGN OR SPECIAL SIGNAL
011	OFCR/FLAG	POLICE OFFICER, FLAGMAN - SCHOOL PATROL
012	BRDG-GATE	BRIDGE GATE - BARRIER
013	TEMP-BARR	TEMPORARY BARRIER
014	NO-PASS-ZN	NO PASSING ZONE
015	ONE-WAY	ONE-WAY STREET
016	CHANNEL	CHANNELIZATION
017	MEDIAN BAR	MEDIAN BARRIER
018	PILOT CAR	PILOT CAR
019	SP PED SIG	SPECIAL PEDESTRIAN SIGNAL
020	X-BUCK	CROSSBUCK
021	THR-GN-SIG	THROUGH GREEN ARROW OR SIGNAL
022	L-GRN-SIG	LEFT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
023	R-GRN-SIG	RIGHT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
024	WIGWAG	WIGWAG OR FLASHING LIGHTS W/O DROP-ARM GATE
025	X-BUCK WRN	CROSSBUCK AND ADVANCE WARNING
026	WW W/ GATE	FLASHING LIGHTS WITH DROP-ARM GATES
027	OVRHD SGNL	SUPPLEMENTAL OVERHEAD SIGNAL (RR XING ONLY)
028	SP RR STOP	SPECIAL RR STOP SIGN
029	ILUM GRD X	ILLUMINATED GRADE CROSSING
037	RAMP METER	METERED RAMPS
038	RUMBLE STR	RUMBLE STRIP
090	L-TURN REF	LEFT TURN REFUGE (WHEN REFUGE IS INVOLVED)
091	R-TURN ALL	RIGHT TURN AT ALL TIMES SIGN, ETC.
092	EMR SGN/FL	EMERGENCY SIGNS OR FLARES
093	ACCEL LANE	ACCELERATION OR DECELERATION LANES
094	R-TURN PRO	RIGHT TURN PROHIBITED ON RED AFTER STOPPING

VEHICLE TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
01	PSNGR CAR	PASSENGER CAR, PICKUP, ETC.
02	BOBTAIL	TRUCK TRACTOR WITH NO TRAILERS (BOBTAIL)
03	FARM TRCTR	FARM TRACTOR OR SELF-PROPELLED FARM EQUIPMENT
04	SEMI TOW	TRUCK TRACTOR WITH TRAILER/MOBILE HOME IN TOW
05	TRUCK	TRUCK WITH NON-DETACHABLE BED, PANEL, ETC.
06	MOPED	MOPED, MINIBIKE, MOTOR SCOOTER, OR MOTOR BICYCLE
07	SCHL BUS	SCHOOL BUS (INCLUDES VAN)
08	OTH BUS	OTHER BUS
09	MTRCYCLE	MOTORCYCLE
10	OTHER	OTHER: FORKLIFT, BACKHOE, ETC.
11	MOTRHOME	MOTORHOME
12	TROLLEY	MOTORIZED STREET CAR/TROLLEY (NO RAILS/WIRES)
13	ATV	ATV
14	MTRSCTR	MOTORIZED SCOOTER
15	SNOWMOBILE	SNOWMOBILE
99	UNKNOWN	UNKNOWN VEHICLE TYPE

095	BUS STPSGN	BUS STOP SIGN AND RED LIGHTS
099	UNKNOWN	UNKNOWN OR NOT DEFINITE

WEATHER CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	CLR	CLEAR
2	CLD	CLOUDY
3	RAIN	RAIN
4	SLT	SLEET
5	FOG	FOG
6	SNOW	SNOW
7	DUST	DUST
8	SMOK	SMOKE
9	ASH	ASH

Appendix E
Year 2011 Background
Traffic Level-of-Service
Worksheets

HCM Signalized Intersection Capacity Analysis
1: Nyberg Road & I-5 SB Off-Ramp

2/12/2009

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑					↰	↰	↱↱
Volume (vph)	0	1414	640	119	1204	0	0	0	0	469	1	967
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4715	1380	1752	3343					1665	1669	2632
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4715	1380	1752	3343					1665	1669	2632
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1488	674	125	1267	0	0	0	0	494	1	1018
RTOR Reduction (vph)	0	0	358	0	0	0	0	0	0	0	0	291
Lane Group Flow (vph)	0	1488	316	125	1267	0	0	0	0	247	248	727
Heavy Vehicles (%)	2%	10%	17%	3%	8%	2%	2%	2%	2%	3%	2%	8%
Turn Type			Perm	Prot						Split		custom
Protected Phases		2		1	6					4	4	4 5
Permitted Phases			2									
Actuated Green, G (s)		44.5	44.5	11.1	46.8					27.4	27.4	40.2
Effective Green, g (s)		44.5	44.5	11.1	46.8					27.4	27.4	40.2
Actuated g/C Ratio		0.47	0.47	0.12	0.49					0.29	0.29	0.42
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	
Vehicle Extension (s)		5.0	5.0	5.0	4.0					3.0	3.0	
Lane Grp Cap (vph)		2209	646	205	1647					480	481	1114
v/s Ratio Prot		0.32		0.07	c0.38					0.15	0.15	c0.28
v/s Ratio Perm			0.23									
v/c Ratio		0.67	0.49	0.61	0.77					0.51	0.52	0.65
Uniform Delay, d1		19.6	17.4	39.9	19.7					28.2	28.3	21.8
Progression Factor		1.00	1.00	1.33	0.67					1.00	1.00	1.00
Incremental Delay, d2		1.7	2.6	6.5	3.1					0.9	0.9	1.4
Delay (s)		21.3	20.0	59.7	16.3					29.2	29.2	23.2
Level of Service		C	C	E	B					C	C	C
Approach Delay (s)		20.9			20.2			0.0			25.2	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM Average Control Delay	22.0	HCM Level of Service	C
HCM Volume to Capacity ratio	~~0.68~~ 0.72		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	~~4.0~~ 8.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱↱		↑↑	↱	↰	↰	↱			
Volume (vph)	0	792	1090	0	426	898	901	6	209	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.5	4.0		4.5	4.0	4.0	4.0	4.0			
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00			
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85			
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)		3471	2561		3471	1568	1559	1565	1553			
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)		3471	2561		3471	1568	1559	1565	1553			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	834	1147	0	448	945	948	6	220	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	49	0	0	0
Lane Group Flow (vph)	0	834	1147	0	448	945	474	480	171	0	0	0
Heavy Vehicles (%)	2%	4%	11%	2%	4%	3%	10%	2%	4%	2%	2%	2%
Turn Type			Free			Free	Split		Perm			
Protected Phases		2			6		8	8				
Permitted Phases			Free			Free			8			
Actuated Green, G (s)		49.7	95.0		49.2	95.0	37.3	37.3	37.3			
Effective Green, g (s)		50.2	95.0		49.2	95.0	37.3	37.3	37.3			
Actuated g/C Ratio		0.53	1.00		0.52	1.00	0.39	0.39	0.39			
Clearance Time (s)		4.0			4.5		4.0	4.0	4.0			
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)		1834	2561		1798	1568	612	614	610			
v/s Ratio Prot		0.24			0.13		0.30	c0.31				
v/s Ratio Perm			0.45			c0.60			0.11			
v/c Ratio		0.45	0.45		0.25	0.60	0.77	0.78	0.28			
Uniform Delay, d1		13.9	0.0		12.7	0.0	25.2	25.3	19.7			
Progression Factor		0.47	1.00		1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2		0.6	0.4		0.3	1.7	6.1	6.4	0.3			
Delay (s)		7.2	0.4		13.0	1.7	31.3	31.7	19.9			
Level of Service		A	A		B	A	C	C	B			
Approach Delay (s)		3.3			5.4			29.3			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM Average Control Delay	10.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	172	758	22	21	1059	72	103	2	3	54	4	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	0.97	0.95		1.00	*0.75			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.96	1.00
Satd. Flow (prot)	3433	3426		1570	2742			1664	1214		1780	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.69	1.00		0.66	1.00
Satd. Flow (perm)	3433	3426		1570	2742			1197	1214		1236	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	177	781	23	22	1092	74	106	2	3	56	4	57
RTOR Reduction (vph)	0	2	0	0	4	0	0	0	3	0	0	49
Lane Group Flow (vph)	177	802	0	22	1162	0	0	108	0	0	60	8
Heavy Vehicles (%)	2%	5%	2%	15%	3%	2%	9%	2%	33%	2%	2%	2%
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	6.6	44.9		2.0	40.3			10.6	10.6		10.6	10.6
Effective Green, g (s)	6.6	44.9		2.0	40.3			10.6	10.6		10.6	10.6
Actuated g/C Ratio	0.09	0.59		0.03	0.53			0.14	0.14		0.14	0.14
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	300	2037		42	1464			168	170		174	222
v/s Ratio Prot	c0.05	c0.23		0.01	c0.42							
v/s Ratio Perm								c0.09	0.00		0.05	0.01
v/c Ratio	0.59	0.39		0.52	0.79			0.64	0.00		0.34	0.04
Uniform Delay, d1	33.1	8.1		36.3	14.2			30.7	27.9		29.3	28.0
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	3.1	0.1		11.3	3.1			8.1	0.0		1.2	0.1
Delay (s)	36.2	8.2		47.6	17.3			38.8	27.9		30.5	28.1
Level of Service	D	A		D	B			D	C		C	C
Approach Delay (s)		13.3			17.9			38.5			29.3	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	~~0.83~~ 0.74		
Actuated Cycle Length (s)	75.5	Sum of lost time (s)	~~24.0~~ 18.0
Intersection Capacity Utilization	64.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	79	686	22	15	809	2	33	4	40	11	4	288
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.96	1.00
Satd. Flow (prot)	1671	1832		1687	3470			1767	1429		1711	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.90	1.00		0.83	1.00
Satd. Flow (perm)	1671	1832		1687	3470			1666	1429		1464	1583
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	81	700	22	15	826	2	34	4	41	11	4	294
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	38	0	0	31
Lane Group Flow (vph)	81	721	0	15	828	0	0	38	3	0	15	263
Heavy Vehicles (%)	8%	3%	10%	7%	4%	2%	3%	2%	13%	9%	2%	2%
Turn Type	Prot			Prot			Perm		Perm	Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8		8	4		4
Actuated Green, G (s)	9.0	29.3		0.7	21.0			4.2	4.2		4.2	13.2
Effective Green, g (s)	9.0	29.3		0.7	21.0			4.2	4.2		4.2	13.2
Actuated g/C Ratio	0.17	0.56		0.01	0.40			0.08	0.08		0.08	0.25
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	2.4	2.5		2.6	2.5			1.6	1.6		1.6	2.4
Lane Grp Cap (vph)	288	1028		23	1396			134	115		118	582
v/s Ratio Prot	0.05	c0.39		0.01	0.24							c0.08
v/s Ratio Perm								0.02	0.00		0.01	0.09
v/c Ratio	0.28	0.70		0.65	0.59			0.28	0.03		0.13	0.45
Uniform Delay, d1	18.8	8.3		25.6	12.2			22.6	22.1		22.3	16.5
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.4	2.0		47.3	0.6			0.4	0.0		0.2	0.4
Delay (s)	19.1	10.3		73.0	12.8			23.0	22.2		22.5	16.8
Level of Service	B	B		E	B			C	C		C	B
Approach Delay (s)		11.2			13.9			22.6			17.1	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	52.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Kittelson & Associates, Inc. - Project #9700

Year 2011 Background Traffic Conditions, Weekday AM Peak Hour

Scenario Report

Scenario:	am
Command:	Default Command
Volume:	am
Geometry:	am
Impact Fee:	Default Impact Fee
Trip Generation:	Nyberg Lodge am
Trip Distribution:	Nyberg Lodge Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Kittelson & Associates, Inc. - Project #9700

Year 2011 Background Traffic Conditions, Weekday AM Peak Hour

Turning Movement Report
Nyberg Lodge a.m

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 I-5 SB Off Ramp / SW Nyberg Rd													
Base	0	0	0	456	0	967	0	1409	640	119	1200	0	4789
Added	0	0	0	4	0	0	0	3	0	8	11	0	26
In Pro	0	0	0	13	0	0	0	5	0	4	4	0	26
Total	0	0	0	473	0	967	0	1417	640	131	1215	0	4841
#2 I-5 NB Off Ramp / SW Nyberg Rd													
Base	901	6	202	0	0	0	0	774	1090	0	418	889	4280
Added	0	0	2	0	0	0	0	7	0	0	19	16	44
In Pro	0	0	7	0	0	0	0	18	0	0	8	9	42
Total	901	6	211	0	0	0	0	799	1090	0	445	914	4366
#3 Shopping Center Best Buy Signal / SW Nyberg Rd													
Base	103	2	3	38	4	36	140	765	22	21	1061	64	2258
Added	0	0	0	0	0	0	0	8	0	0	34	0	42
In Pro	0	0	0	16	0	19	32	-7	0	0	-2	8	66
Total	103	2	3	54	4	55	172	766	22	21	1093	72	2366
#4 SW 65th Ave / SW Nyberg St													
Base	33	4	40	11	4	287	78	678	22	15	804	2	1979
Added	0	0	0	8	0	34	8	0	0	0	0	2	52
In Pro	0	0	0	0	0	1	1	8	0	0	5	0	15
Total	33	4	40	19	4	322	87	686	22	15	809	4	2046
#5 SW 57th Ave / SW Nyberg Ln													
Base	98	0	2	0	0	0	0	36	37	1	124	0	298
Added	1	0	0	0	0	0	0	8	3	0	2	0	14
Total	99	0	2	0	0	0	0	44	40	1	126	0	312
#6 SW 65th Ave / SW Borland Rd													
Base	2	472	188	232	238	33	5	2	2	257	10	310	1754
Added	0	2	0	0	8	0	0	0	0	0	0	0	10
In-Pro	0	2	1	3	6	0	0	0	0	2	0	3	17
Total	2	476	189	235	252	33	5	2	2	259	10	313	1781
#7 SW 57th Ave / SW Borland Rd													
Base	0	0	0	13	0	73	33	336	0	0	552	10	1018
Added	0	0	0	3	0	0	0	0	0	0	0	1	4
In-Pro	0	0	0	0	0	0	0	4	0	0	5	0	9
Total	0	0	0	16	0	73	33	340	0	0	557	11	1031
#8 SW 50th Ave/SW Wilke Rd / SW Borland Rd													
Base	0	0	0	46	0	46	20	257	0	0	435	15	818
Added	0	0	0	8	0	0	0	3	0	0	1	2	14
In Pro	0	0	0	0	0	0	0	4	0	0	5	0	9
Total	0	0	0	54	0	46	20	264	0	0	441	17	841

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Year 2011 Background Traffic Conditions, Weekday AM Peak Hour

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#9 Nyberg Lodge Access													
Base	0	0	0	0	0	0	0	85	0	0	303	0	388
Added	42	0	11	0	0	0	0	0	10	3	0	0	66
Total	42	0	11	0	0	0	0	85	10	3	303	0	454
#15													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Kittelson & Associates, Inc. - Project #9700

Year 2011 Background Traffic Conditions, Weekday AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 5 SW 57th Ave / SW Nyberg Ln	B	10.3	0.000	B	10.4	0.000	+ 0.117 D/V
# 6 SW 65th Ave / SW Borland Rd	C	29.2	0.834	C	29.5	0.841	+ 0.322 D/V
# 7 SW 57th Ave / SW Borland Rd	C	16.5	0.000	C	17.1	0.000	+ 0.668 D/V
# 8 SW 50th Ave/SW Wilke Rd / SW B	B	14.8	0.000	C	15.5	0.000	+ 0.672 D/V

Kittelson & Associates, Inc. - Project #9700

Year 2011 Background Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 SW 57th Ave / SW Nyberg Ln

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: B[10.4]

Street Name:	SW 57th Ave									SW Nyberg Ln					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0	1! 0	0		0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
Volume Module: >> Count Date: 23 Oct 2008 << 7:10 AM to 8:10 AM																				
Base Vol:	94	0	2	0	0	0	0	34	35	1	119	0								
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05								
Initial Bse:	98	0	2	0	0	0	0	36	37	1	124	0								
Added Vol:	1	0	0	0	0	0	0	8	3	0	2	0								
In-Process:	0	0	0	0	0	0	0	0	0	0	0	0								
Initial Fut:	99	0	2	0	0	0	0	44	40	1	126	0								
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88								
PHF Volume:	113	0	2	0	0	0	0	49	45	1	144	0								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
FinalVolume:	113	0	2	0	0	0	0	49	45	1	144	0								
Critical Gap Module:																				
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx								
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx								
Capacity Module:																				
Cnflict Vol:	219	219	73	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	95	xxxx	xxxxx								
Potent Cap.:	774	683	995	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1511	xxxx	xxxxx								
Move Cap.:	773	682	994	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1510	xxxx	xxxxx								
Volume/Cap:	0.15	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx								
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx								
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx								
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*								
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT										
Shared Cap.:	xxxx	776	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
SharedQueue:	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx								
Shrd ConDel:	xxxxx	10.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx								
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*								
ApproachDel:	10.4			xxxxxx			xxxxxx			xxxxxx										
ApproachLOS:	B			*			*			*										

Note: Queue reported is the number of cars per lane.

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Year 2011 Background Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 SW 65th Ave / SW Borland Rd

Cycle (sec):	100		Critical Vol./Cap.(X):	0.841	
Loss Time (sec):	16 (Y+R=0.0 sec)		Average Delay (sec/veh):	29.5	
Optimal Cycle:	97		Level Of Service:	C	

Street Name:	SW 65th Ave									SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase					
Rights:	Include			Include			Include			Ovl					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	0	1	0	1	0	0	1	0	0	0	1! 0	0	0	1	0	0	1	
Volume Module: >> Count Date: 23 Oct 2008 << 7:35 AM to 8:35 AM																				
Base Vol:	2	452	180	222	228	32	5	2	2	246	10	297								
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05								
Initial Bse:	2	472	188	232	238	33	5	2	2	257	10	310								
Added Vol:	0	2	0	0	8	0	0	0	0	0	0	0								
In-Process :	0	2	1	3	6	0	0	0	0	2	0	3								
Initial Fut:	2	476	189	235	252	33	5	2	2	259	10	313								
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96								
PHF Volume:	2	496	197	245	263	35	5	2	2	270	11	326								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
Reduced Vol:	2	496	197	245	263	35	5	2	2	270	11	326								
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
FinalVolume:	2	496	197	245	263	35	5	2	2	270	11	326								
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900								
Adjustment:	0.91	0.92	0.92	0.90	0.93	0.93	0.94	0.94	0.94	0.92	0.92	0.82								
Lanes:	1.00	0.72	0.28	1.00	0.88	0.12	0.56	0.22	0.22	0.96	0.04	1.00								
Final Sat.:	1735	1252	497	1702	1553	206	994	398	398	1676	68	1554								
Capacity Analysis Module:																				
Vol/Sat:	0.00	0.40	0.40	0.14	0.17	0.17	0.01	0.01	0.01	0.16	0.16	0.21								
Crit Moves:		****		****			****				****									
Green/Cycle:	0.48	0.47	0.47	0.68	0.64	0.64	0.01	0.01	0.01	0.19	0.19	0.36								
Volume/Cap:	0.00	0.84	0.84	0.59	0.27	0.27	0.84	0.84	0.84	0.84	0.84	0.58								
Delay/Veh:	13.8	31.0	31.0	16.4	8.0	8.0	225.9	226	225.9	56.2	56.2	27.3								
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
AdjDel/Veh:	13.8	31.0	31.0	16.4	8.0	8.0	225.9	226	225.9	56.2	56.2	27.3								
LOS by Move:	B	C	C	B	A	A	F	F	F	E	E	C								
HCM2kAvgQ:	0	21	21	5	4	4	1	1	1	11	11	9								

Note: Queue reported is the number of cars per lane.

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Kittelson & Associates, Inc. - Project #9700

Year 2011 Background Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 SW 57th Ave / SW Borland Rd

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C[17.1]

Street Name:	SW 57th Ave						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 1 0 0			0 0 0 1 0		
Volume Module: >> Count Date: 23 Oct 2008 << 7:35 AM to 8:35 AM												
Base Vol:	0	0	0	12	0	70	32	322	0	0	528	10
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	0	0	13	0	73	33	336	0	0	552	10
Added Vol:	0	0	0	3	0	0	0	0	0	0	0	1
In-Process :	0	0	0	0	0	0	0	4	0	0	5	0
Initial Fut:	0	0	0	16	0	73	33	340	0	0	557	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	17	0	81	37	378	0	0	619	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	17	0	81	37	378	0	0	619	13
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.6	6.3	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1080	1081	639	633	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	238	215	471	921	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	231	206	465	920	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.07	0.00	0.17	0.04	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	395	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	1.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	17.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			17.1			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

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Year 2011 Background Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 SW 50th Ave/SW Wilke Rd / SW Borland Rd

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: C[15.5]

Street Name:	SW 50th Ave/SW Wilke Rd						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 1 0 0			0 0 0 1 0		
Volume Module: >> Count Date: 23 Oct 2008 << 7:35 AM to 8:35 AM												
Base Vol:	0	0	0	44	0	44	19	246	0	0	416	14
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	0	0	46	0	46	20	257	0	0	435	15
Added Vol:	0	0	0	8	0	0	0	3	0	0	1	2
In Process :	0	0	0	0	0	0	0	4	0	0	5	0
Initial Fut:	0	0	0	54	0	46	20	264	0	0	441	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	60	0	51	22	293	0	0	490	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	60	0	51	22	293	0	0	490	18
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.3	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	836	xxxx	499	508	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	333	xxxx	566	1042	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	328	xxxx	566	1042	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.18	xxxx	0.09	0.02	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.7	xxxx	0.3	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	18.4	xxxx	12.0	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	B	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			15.5			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑					↰	↕	↱↱
Volume (vph)	0	1450	919	136	1019	0	0	0	0	718	2	1231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4988	1538	1770	3438					1649	1654	2707
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4988	1538	1770	3438					1649	1654	2707
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1526	967	143	1073	0	0	0	0	756	2	1296
RTOR Reduction (vph)	0	0	528	0	0	0	0	0	0	0	0	246
Lane Group Flow (vph)	0	1526	439	143	1073	0	0	0	0	878	380	1050
Heavy Vehicles (%)	2%	4%	5%	2%	5%	2%	2%	2%	2%	4%	2%	5%
Turn Type			Perm	Prot						Split		custom
Protected Phases		2		1	6					4	4	4 5
Permitted Phases			2									
Actuated Green, G (s)		39.9	39.9	11.8	40.8					36.3	36.3	51.2
Effective Green, g (s)		39.9	39.9	11.8	40.8					36.3	36.3	51.2
Actuated g/C Ratio		0.40	0.40	0.12	0.41					0.36	0.36	0.51
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	
Vehicle Extension (s)		5.0	5.0	5.0	4.0					3.0	3.0	
Lane Grp Cap (vph)		1990	614	209	1403					599	600	1386
v/s Ratio Prot		0.31		0.08	c0.31					0.23	0.23	c0.39
v/s Ratio Perm			0.29									
v/c Ratio		0.77	0.71	0.68	0.76					0.63	0.63	0.76
Uniform Delay, d1		26.0	25.3	42.3	25.5					26.3	26.3	19.4
Progression Factor		1.00	1.00	1.01	0.74					1.00	1.00	1.00
Incremental Delay, d2		2.9	7.0	10.3	3.6					2.2	2.2	2.4
Delay (s)		28.9	32.2	53.2	22.5					28.5	28.5	21.9
Level of Service		C	C	D	C					C	C	C
Approach Delay (s)		30.2			26.1			0.0			24.3	
Approach LOS		C			C			A			C	

Intersection Summary				
HCM Average Control Delay	27.2	HCM Level of Service	C	
HCM Volume to Capacity ratio	~~0.73~~ 0.76			
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	~~4.0~~ 8.0	
Intersection Capacity Utilization	94.4%	ICU Level of Service	F	
Analysis Period (min)	15			

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱↱		↑↑	↱	↰	↕	↱			
Volume (vph)	0	1157	1012	0	523	698	633	0	196	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.5	4.0	4.0	4.0	4.0			
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00			
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85			
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)		3539	2682		3539	1583	1588	1588	1583			
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)		3539	2682		3539	1583	1588	1588	1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1218	1065	0	551	735	666	0	206	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	51	0	0	0
Lane Group Flow (vph)	0	1218	1065	0	551	735	333	333	155	0	0	0
Heavy Vehicles (%)	2%	2%	6%	2%	2%	2%	8%	2%	2%	2%	2%	2%
Turn Type			Free			Free	Split		Perm			
Protected Phases		2			6		8	8				
Permitted Phases			Free			Free			8			
Actuated Green, G (s)		65.3	100.0		64.8	100.0	26.7	26.7	26.7			
Effective Green, g (s)		65.3	100.0		64.8	100.0	26.7	26.7	26.7			
Actuated g/C Ratio		0.65	1.00		0.65	1.00	0.27	0.27	0.27			
Clearance Time (s)		4.0			4.5		4.0	4.0	4.0			
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)		2311	2682		2293	1583	424	424	423			
v/s Ratio Prot		c0.34			0.16		c0.21	0.21				
v/s Ratio Perm			0.40			0.46			0.10			
v/c Ratio		0.53	0.40		0.24	0.46	0.79	0.79	0.37			
Uniform Delay, d1		9.2	0.0		7.3	0.0	34.0	34.0	29.8			
Progression Factor		0.57	1.00		1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2		0.6	0.3		0.2	1.0	9.2	9.2	0.5			
Delay (s)		5.8	0.3		7.6	1.0	43.2	43.2	30.3			
Level of Service		A	A		A	A	D	D	C			
Approach Delay (s)		3.2			3.8			40.2			0.0	
Approach LOS		A			A			D			A	

Intersection Summary			
HCM Average Control Delay	10.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	243	1024	57	21	924	56	96	9	18	79	8	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	0.97	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.96	1.00
Satd. Flow (prot)	3433	3511		1787	3509			1781	1583		1782	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.68	1.00		0.67	1.00
Satd. Flow (perm)	3433	3511		1787	3509			1264	1583		1243	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	256	1078	60	22	973	59	101	9	19	83	8	182
RTOR Reduction (vph)	0	4	0	0	5	0	0	0	15	0	0	147
Lane Group Flow (vph)	256	1134	0	22	1027	0	0	110	4	0	91	35
Heavy Vehicles (%)	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	6.1	31.8		0.7	26.4			11.5	11.5		11.5	11.5
Effective Green, g (s)	6.1	31.8		0.7	26.4			11.5	11.5		11.5	11.5
Actuated g/C Ratio	0.10	0.51		0.01	0.43			0.19	0.19		0.19	0.19
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	338	1801		20	1494			234	294		231	294
v/s Ratio Prot	c0.07	c0.32		0.01	0.29							
v/s Ratio Perm								c0.09	0.00		0.07	0.02
v/c Ratio	0.76	0.63		1.10	0.69			0.47	0.01		0.39	0.12
Uniform Delay, d1	27.2	10.9		30.6	14.4			22.5	20.6		22.2	21.0
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	9.3	0.7		234.8	1.3			1.5	0.0		1.1	0.2
Delay (s)	36.6	11.6		265.4	15.8			24.0	20.6		23.3	21.2
Level of Service	D	B		F	B			C	C		C	C
Approach Delay (s)		16.2			21.0			23.5			21.9	
Approach LOS		B			C			C			C	

Intersection Summary				
HCM Average Control Delay	18.8	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.65			
Actuated Cycle Length (s)	62.0	Sum of lost time (s)	18.0	
Intersection Capacity Utilization	61.7%	ICU Level of Service	B	
Analysis Period (min)	15			

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	265	776	28	24	833	14	31	8	47	5	9	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.98	1.00
Satd. Flow (prot)	1770	1853		1770	3530			1791	1583		1830	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.82	1.00		0.87	1.00
Satd. Flow (perm)	1770	1853		1770	3530			1528	1583		1611	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	279	817	29	25	877	15	33	8	49	5	9	123
RTOR Reduction (vph)	0	1	0	0	1	0	0	0	45	0	0	29
Lane Group Flow (vph)	279	845	0	25	891	0	0	41	4	0	14	94
Turn Type	Prot			Prot			Perm		Perm	Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8		8	4		4
Actuated Green, G (s)	13.5	36.7		1.5	24.7			4.4	4.4		4.4	17.9
Effective Green, g (s)	13.5	36.7		1.5	24.7			4.4	4.4		4.4	17.9
Actuated g/C Ratio	0.22	0.61		0.02	0.41			0.07	0.07		0.07	0.30
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	2.4	2.5		2.6	2.5			1.6	1.6		1.6	2.4
Lane Grp Cap (vph)	394	1122		44	1439			111	115		117	624
v/s Ratio Prot	c0.16	c0.46		0.01	0.25							0.03
v/s Ratio Perm								c0.03	0.00		0.01	0.03
v/c Ratio	0.71	0.75		0.57	0.62			0.37	0.03		0.12	0.15
Uniform Delay, d1	21.7	8.7		29.2	14.2			26.8	26.1		26.3	15.7
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	5.2	2.8		13.5	0.7			0.8	0.0		0.2	0.1
Delay (s)	26.9	11.4		42.7	14.9			27.5	26.2		26.5	15.8
Level of Service	C	B		D	B			C	C		C	B
Approach Delay (s)		15.3			15.7			26.8			16.9	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM Average Control Delay	16.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	60.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Kittelson & Associates, Inc. - Project #9700

Year 2011 Background Traffic Conditions, Weekday PM Peak Hour

Scenario Report

Scenario:	pm
Command:	Default Command
Volume:	pm
Geometry:	pm
Impact Fee:	Default Impact Fee
Trip Generation:	Nyberg Lodge pm
Trip Distribution:	Nyberg Lodge Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Year 2011 Background Traffic Conditions, Weekday PM Peak Hour

Turning Movement Report
Nyberg Lodge p.m

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#1 I-5 SB Off Ramp / SW Nyberg Rd													
Base	0	0	0	707	2	1231	0	1446	919	133	1017	0	5455
Added	0	0	0	16	0	0	0	10	0	4	6	0	36
In - P	0	0	0	11	0	0	0	4	0	5	2	0	22
Total	0	0	0	734	2	1231	0	1460	919	142	1025	0	5513
#2 I-5 NB Off Ramp / SW Nyberg Rd													
Base	633	0	191	0	0	0	0	1142	1012	0	516	686	4180
Added	0	0	8	0	0	0	0	26	0	0	10	8	52
In Pro	0	0	5	0	0	0	0	15	0	0	7	12	39
Total	633	0	204	0	0	0	0	1183	1012	0	533	706	4271
#3 Shopping Center Best Buy Signal / SW Nyberg Rd													
Base	96	9	18	69	8	163	219	1028	57	21	916	49	2655
Added	0	0	0	0	0	0	0	34	0	0	18	0	52
In Pro	0	0	0	10	0	10	24	-4	0	0	8	7	55
Total	96	9	18	79	8	173	243	1058	57	21	942	56	2762
#4 SW 65th Ave / SW Nyberg St													
Base	31	8	47	5	9	116	265	770	28	24	819	14	2138
Added	0	0	0	4	0	18	34	0	0	0	0	8	64
In-Pro	0	0	0	0	0	1	0	6	0	0	14	0	21
Total	31	8	47	9	9	135	299	776	28	24	833	22	2223
#5 SW 57th Ave / SW Nyberg Ln													
Base	63	0	2	0	0	0	0	118	79	2	77	0	342
Added	3	0	0	0	0	0	0	4	1	0	8	0	16
Total	66	0	2	0	0	0	0	122	80	2	85	0	358
#6 SW 65th Ave / SW Borland Rd													
Base	2	329	279	338	414	4	30	5	2	246	1	243	1894
Added	0	8	0	0	4	0	0	0	0	0	0	0	12
In-Pro	0	12	4	1	5	0	0	0	0	1	0	2	25
Total	2	349	283	339	423	4	30	5	2	247	1	245	1931
#7 SW 57th Ave / SW Borland Rd													
Base	0	0	0	9	0	42	43	570	0	0	358	27	1049
Added	0	0	0	1	0	0	0	0	0	0	0	3	4
In-Pro	0	0	0	0	0	0	0	5	0	0	3	0	8
Total	0	0	0	10	0	42	43	575	0	0	361	30	1061
#8 SW 50th Ave/SW Wilke Rd / SW Borland Rd													
Base	0	0	0	30	0	32	44	487	0	0	325	47	966
Added	0	0	0	4	0	0	0	1	0	0	3	8	16
In-Pro	0	0	0	0	0	0	0	5	0	0	3	0	8
Total	0	0	0	34	0	32	44	493	0	0	331	55	990

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Year 2011 Background Traffic Conditions, Weekday PM Peak Hour

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#9 Nyberg Lodge Access													
Base	0	0	0	0	0	0	0	287	0	0	131	0	418
Added	22	0	6	0	0	0	0	0	42	10	0	0	80
Total	22	0	6	0	0	0	0	287	42	10	131	0	498
#15													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Kittelson & Associates, Inc. - Project #9700

Year 2011 Background Traffic Conditions, Weekday PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Del/ Veh	V/ C	Future LOS	Del/ Veh	V/ C	Change in
# 5 SW 57th Ave / SW Nyberg Ln	B	10.7	0.000	B	10.8	0.000	+ 0.147 D/V
# 6 SW 65th Ave / SW Borland Rd	C	32.9	0.881	C	34.6	0.898	+ 1.688 D/V
# 7 SW 57th Ave / SW Borland Rd	B	14.0	0.000	B	14.4	0.000	+ 0.386 D/V
# 8 SW 50th Ave/SW Wilke Rd / SW B	C	16.9	0.000	C	17.8	0.000	+ 0.945 D/V

Kittelson & Associates, Inc. - Project #9700

Year 2011 Background Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 SW 57th Ave / SW Nyberg Ln

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: B[10.8]

Street Name:	SW 57th Ave									SW Nyberg Ln					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R			
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0 1! 0	0	0	0 0 0	0 0	0	0 0 1	0	0	1 0	0	0	0	0
Volume Module: >> Count Date: 23 Oct 2008 << 4:35 PM to 5:35 PM															
Base Vol:	60	0	2	0	0	0	0	113	76	2	74	0			
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05			
Initial Bse:	63	0	2	0	0	0	0	118	79	2	77	0			
Added Vol:	3	0	0	0	0	0	0	4	1	0	8	0			
In-Process:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	66	0	2	0	0	0	0	122	80	2	85	0			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
PHF Volume:	73	0	2	0	0	0	0	136	89	2	95	0			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
FinalVolume:	73	0	2	0	0	0	0	136	89	2	95	0			
Critical Gap Module:															
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx			
Capacity Module:															
Cnflict Vol:	292	290	181	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	226	xxxx	xxxxx			
Potent Cap.:	699	620	861	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1337	xxxx	xxxxx			
Move Cap.:	691	614	861	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1335	xxxx	xxxxx			
Volume/Cap:	0.11	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx			
Level Of Service Module:															
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT			
Shared Cap.:	xxxx	695	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Shrd ConDel:	xxxxx	10.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx			
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*			
ApproachDel:		10.8			xxxxxx			xxxxxx			xxxxxx				
ApproachLOS:		B			*			*			*				

Note: Queue reported is the number of cars per lane.

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Kittelson & Associates, Inc. - Project #9700

Year 2011 Background Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 SW 65th Ave / SW Borland Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.898
Loss Time (sec):	16 (Y+R=0.0 sec)	Average Delay (sec/veh):	34.6
Optimal Cycle:	116	Level Of Service:	C

Street Name:	SW 65th Ave									SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R			
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase					
Rights:	Include			Include			Include			Ovl					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0 0 1	0	1	0 0 1	0	0	0 1! 0	0	0	1 0	1			
Volume Module: >> Count Date: 23 Oct 2008 << 4:35 PM to 5:35 PM															
Base Vol:	2	315	267	323	396	4	29	5	2	235	1	233			
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05			
Initial Bse:	2	329	279	338	414	4	30	5	2	246	1	243			
Added Vol:	0	8	0	0	4	0	0	0	0	0	0	0			
In-Process :	0	12	4	1	5	0	0	0	0	1	0	2			
Initial Fut:	2	349	283	339	423	4	30	5	2	247	1	245			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
PHF Volume:	2	368	298	356	445	4	32	5	2	260	1	258			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	2	368	298	356	445	4	32	5	2	260	1	258			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	2	368	298	356	445	4	32	6	2	260	1	258			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.93	0.91	0.91	0.92	0.97	0.97	0.95	0.95	0.95	0.94	0.94	0.84			
Lanes:	1.00	0.55	0.45	1.00	0.99	0.01	0.80	0.14	0.06	0.99	0.01	1.00			
Final Sat.:	1768	957	776	1752	1825	18	1459	252	101	1785	8	1599			
Capacity Analysis Module:															
Vol/Sat:	0.00	0.38	0.38	0.20	0.24	0.24	0.02	0.02	0.02	0.15	0.15	0.16			
Crit Moves:		****		****				****		****					
Green/Cycle:	0.43	0.43	0.43	0.69	0.65	0.65	0.02	0.02	0.02	0.16	0.16	0.39			
Volume/Cap:	0.01	0.90	0.90	0.72	0.37	0.37	0.90	0.90	0.90	0.90	0.90	0.42			
Delay/Veh:	16.2	40.4	40.4	27.9	8.3	8.3	145.6	146	145.6	69.5	69.5	22.8			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	16.2	40.4	40.4	27.9	8.3	8.3	145.6	146	145.6	69.5	69.5	22.8			
LOS by Move:	B	D	D	C	A	A	F	F	F	E	E	C			
HCM2kAvgQ:	0	23	23	8	6	6	3	3	3	11	11	6			

Note: Queue reported is the number of cars per lane.

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Kittelson & Associates, Inc. - Project #9700

Year 2011 Background Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 SW 57th Ave / SW Borland Rd

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: B[14.4]

Street Name:	SW 57th Ave									SW Borland Rd								
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled								
Rights:	Include			Include			Include			Include								
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	1	0	0	0	0	0	1	0
Volume Module: >> Count Date: 23 Oct 2008 << 4:45 PM to 5:45 PM																				
Base Vol:	0	0	0	9	0	40	41	545	0	0	343	26								
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05								
Initial Bse:	0	0	0	9	0	42	43	570	0	0	358	27								
Added Vol:	0	0	0	1	0	0	0	0	0	0	0	3								
In-Process :	0	0	0	0	0	0	0	5	0	0	3	0								
Initial Fut:	0	0	0	10	0	42	43	575	0	0	361	30								
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87								
PHF Volume:	0	0	0	12	0	48	49	660	0	0	415	35								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
FinalVolume:	0	0	0	12	0	48	49	660	0	0	415	35								
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx	1192	1192	433	450	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Potent Cap.:	xxxx	xxxx	xxxxx	209	189	627	1116	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Move Cap.:	xxxx	xxxx	xxxxx	202	180	627	1116	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Volume/Cap:	xxxx	xxxx	xxxx	0.06	0.00	0.08	0.04	xxxx	xxxx	xxxx	xxxx	xxxx								
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*								
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	442	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx							
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	14.4	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shared LOS:	*	*	*	*	B	*	*	*	*		*	*	*							
ApproachDel:	xxxxxx			14.4			xxxxxx				xxxxxx									
ApproachLOS:	*			B			*				*									

Note: Queue reported is the number of cars per lane.

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Kittelson & Associates, Inc. - Project #9700

Year 2011 Background Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 SW 50th Ave/SW Wilke Rd / SW Borland Rd

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: C[17.8]

Street Name:	SW 50th Ave/SW Wilke Rd									SW Borland Rd								
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled								
Rights:	Include			Include			Include			Include								
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	1	0	0	0	0	0	1	0
Volume Module: >> Count Date: 23 Oct 2008 << 4:45 PM to 5:45 PM																				
Base Vol:	0	0	0	29	0	31	42	466	0	0	311	45								
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05								
Initial Bse:	0	0	0	30	0	32	44	487	0	0	325	47								
Added Vol:	0	0	0	4	0	0	0	1	0	0	3	8								
In-Process :	0	0	0	0	0	0	0	5	0	0	3	0								
Initial Fut:	0	0	0	34	0	32	44	493	0	0	331	55								
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86								
PHF Volume:	0	0	0	40	0	38	51	573	0	0	385	64								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
FinalVolume:	0	0	0	40	0	38	51	573	0	0	385	64								
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx	1092	xxxx	425	449	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Potent Cap.:	xxxx	xxxx	xxxxx	236	xxxx	627	1112	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Move Cap.:	xxxx	xxxx	xxxxx	228	xxxx	623	1112	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Volume/Cap:	xxxx	xxxx	xxxx	0.17	xxxx	0.06	0.05	xxxx	xxxx	xxxx	xxxx	xxxx								
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	0.6	xxxx	0.2	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Control Del:	xxxxx	xxxx	xxxxx	24.1	xxxx	11.1	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
LOS by Move:	*	*	*	C	*	B	A	*	*	*	*	*								
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx							
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shared LOS:	*	*	*	*	*	*	*	*	*		*	*	*							
ApproachDel:	xxxxxx			17.8			xxxxxx				xxxxxx									
ApproachLOS:	*			C			*				*									

Note: Queue reported is the number of cars per lane.

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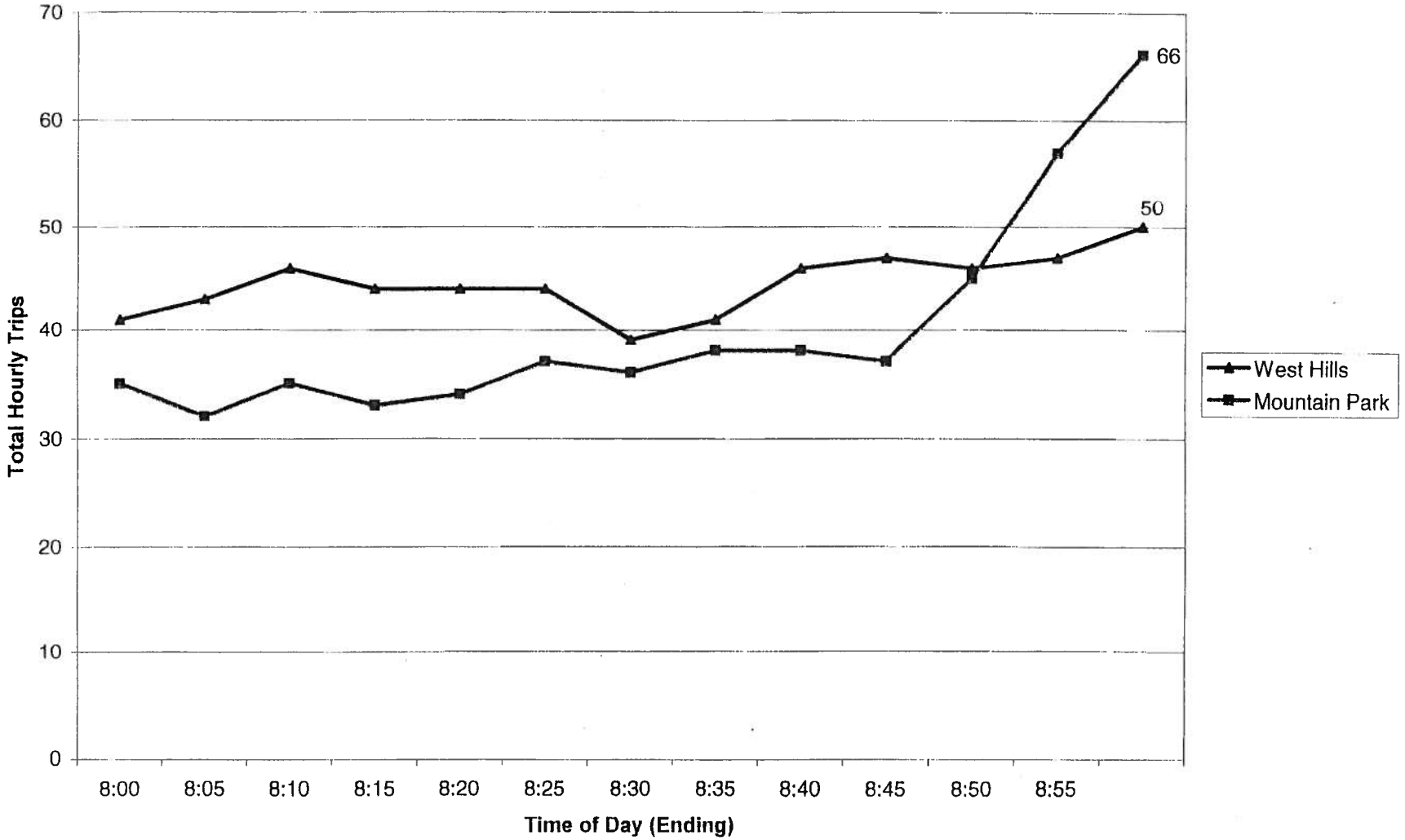
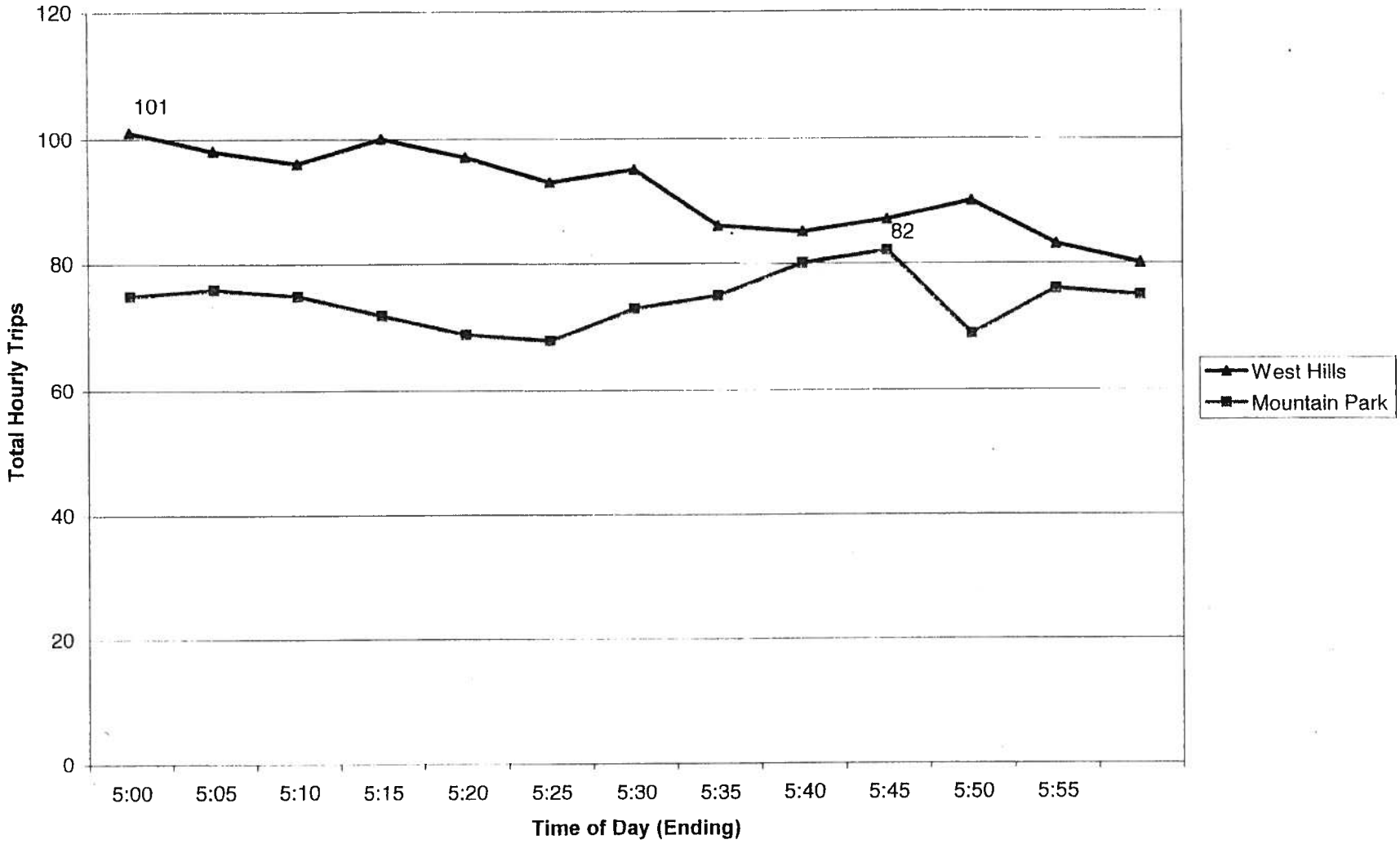
Appendix F Trip Generation Data

Weekday AM Trip Generation Profiles



Weekday PM Trip Generation Profiles



Appendix G
Year 2011 Total Traffic
Level-Of-Service
Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑					↰	↕	↱↱
Volume (vph)	0	1421	640	125	1207	0	0	0	0	480	0	967
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4715	1380	1752	3343					1665	1665	2632
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4715	1380	1752	3343					1665	1665	2632
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1496	674	132	1271	0	0	0	0	505	0	1018
RTOR Reduction (vph)	0	0	360	0	0	0	0	0	0	0	0	291
Lane Group Flow (vph)	0	1496	314	132	1271	0	0	0	0	252	253	727
Heavy Vehicles (%)	2%	10%	17%	3%	8%	2%	2%	2%	2%	3%	2%	8%
Turn Type			Perm	Prot						Split		custom
Protected Phases		2		1	6					4	4	4 5
Permitted Phases			2									
Actuated Green, G (s)		44.3	44.3	11.3	46.8					27.4	27.4	40.2
Effective Green, g (s)		44.3	44.3	11.3	46.8					27.4	27.4	40.2
Actuated g/C Ratio		0.47	0.47	0.12	0.49					0.29	0.29	0.42
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	
Vehicle Extension (s)		5.0	5.0	5.0	4.0					3.0	3.0	
Lane Grp Cap (vph)		2199	644	208	1647					480	480	1114
v/s Ratio Prot		0.32		0.08	c0.38					0.15	0.15	c0.28
v/s Ratio Perm			0.23									
v/c Ratio		0.68	0.49	0.63	0.77					0.52	0.53	0.65
Uniform Delay, d1		19.8	17.5	39.9	19.7					28.3	28.4	21.8
Progression Factor		1.00	1.00	1.29	0.69					1.00	1.00	1.00
Incremental Delay, d2		1.7	2.6	7.5	3.2					1.0	1.0	1.4
Delay (s)		21.5	20.1	59.0	16.8					29.4	29.4	23.2
Level of Service		C	C	E	B					C	C	C
Approach Delay (s)		21.1			20.8			0.0			25.3	
Approach LOS		C			C			A			C	

Intersection Summary				
HCM Average Control Delay	22.3	HCM Level of Service	C	
HCM Volume to Capacity ratio	~~0.89~~ 0.72			
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	~~4.0~~ 8.0	
Intersection Capacity Utilization	73.9%	ICU Level of Service	D	
Analysis Period (min)	15			

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱↱		↑↑	↱	↰	↑	↱			
Volume (vph)	0	810	1090	0	431	903	901	6	214	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.5	4.0	4.0	4.0	4.0			
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00			
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85			
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)		3471	2561		3471	1568	1559	1565	1553			
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)		3471	2561		3471	1568	1559	1565	1553			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	853	1147	0	454	951	948	6	225	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	44	0	0	0
Lane Group Flow (vph)	0	853	1147	0	454	951	474	480	181	0	0	0
Heavy Vehicles (%)	2%	4%	11%	2%	4%	3%	10%	2%	4%	2%	2%	2%
Turn Type			Free			Free	Split		Perm			
Protected Phases		2			6		8	8				
Permitted Phases			Free			Free			8			
Actuated Green, G (s)		49.7	95.0		49.2	95.0	37.3	37.3	37.3			
Effective Green, g (s)		49.7	95.0		49.2	95.0	37.3	37.3	37.3			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.39	0.39	0.39			
Clearance Time (s)		4.0			4.5		4.0	4.0	4.0			
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)		1816	2561		1798	1568	612	614	610			
v/s Ratio Prot		0.25			0.13		0.30	c0.31				
v/s Ratio Perm			0.45			c0.61			0.12			
v/c Ratio		0.47	0.45		0.25	0.61	0.77	0.78	0.30			
Uniform Delay, d1		14.3	0.0		12.7	0.0	25.2	25.3	19.8			
Progression Factor		0.48	1.00		1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2		0.7	0.4		0.3	1.8	6.1	6.4	0.3			
Delay (s)		7.6	0.4		13.0	1.8	31.3	31.7	20.1			
Level of Service		A	A		B	A	C	C	C			
Approach Delay (s)		3.5			5.4			29.3			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM Average Control Delay	10.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	4:0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
3: Nyberg Road & Best Buy Access

2/12/2009

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	172	781	22	21	1069	72	103	2	3	54	4	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	0.97	0.95		1.00	*0.75			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.96	1.00
Satd. Flow (prot)	3433	3426		1570	2743			1664	1214		1780	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.69	1.00		0.66	1.00
Satd. Flow (perm)	3433	3426		1570	2743			1197	1214		1236	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	177	805	23	22	1102	74	106	2	3	56	4	57
RTOR Reduction (vph)	0	2	0	0	4	0	0	0	3	0	0	49
Lane Group Flow (vph)	177	826	0	22	1172	0	0	108	0	0	60	8
Heavy Vehicles (%)	2%	5%	2%	15%	3%	2%	9%	2%	33%	2%	2%	2%
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	5.6	43.7		2.0	40.1			10.6	10.6		10.6	10.6
Effective Green, g (s)	5.6	43.7		2.0	40.1			10.6	10.6		10.6	10.6
Actuated g/C Ratio	0.08	0.59		0.03	0.54			0.14	0.14		0.14	0.14
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	259	2015		42	1480			171	173		176	226
v/s Ratio Prot	c0.05	c0.24		0.01	c0.43							
v/s Ratio Perm								c0.09	0.00		0.05	0.01
v/c Ratio	0.68	0.41		0.52	0.79			0.63	0.00		0.34	0.04
Uniform Delay, d1	33.5	8.3		35.7	13.7			30.0	27.3		28.7	27.4
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	7.3	0.1		11.3	3.0			7.4	0.0		1.2	0.1
Delay (s)	40.7	8.4		47.0	16.7			37.4	27.3		29.9	27.5
Level of Service	D	A		D	B			D	C		C	C
Approach Delay (s)		14.1			17.3			37.1			28.7	
Approach LOS		B			B			D			C	

Intersection Summary				
HCM Average Control Delay	17.4	HCM Level of Service	B	
HCM Volume to Capacity ratio	~~0.85~~ 0.75			
Actuated Cycle Length (s)	74.3	Sum of lost time (s)	~~24.0~~ 18.0	
Intersection Capacity Utilization	64.2%	ICU Level of Service	C	
Analysis Period (min)	15			

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	102	686	22	15	809	7	33	4	40	13	4	298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.96	1.00
Satd. Flow (prot)	1671	1832		1687	3467			1767	1429		1705	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.90	1.00		0.84	1.00
Satd. Flow (perm)	1671	1832		1687	3467			1666	1429		1487	1583
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	104	700	22	15	826	7	34	4	41	13	4	304
RTOR Reduction (vph)	0	1	0	0	1	0	0	0	38	0	0	30
Lane Group Flow (vph)	104	721	0	15	832	0	0	38	3	0	17	274
Heavy Vehicles (%)	8%	3%	10%	7%	4%	2%	3%	2%	13%	9%	2%	2%
Turn Type	Prot			Prot			Perm		Perm	Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8		8	4		4
Actuated Green, G (s)	9.4	29.8		0.7	21.1			4.2	4.2		4.2	13.6
Effective Green, g (s)	9.4	29.8		0.7	21.1			4.2	4.2		4.2	13.6
Actuated g/C Ratio	0.18	0.57		0.01	0.40			0.08	0.08		0.08	0.26
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	2.4	2.5		2.6	2.5			1.6	1.6		1.6	2.4
Lane Grp Cap (vph)	298	1036		22	1388			133	114		119	589
v/s Ratio Prot	0.06	c0.39		0.01	0.24							c0.08
v/s Ratio Perm								0.02	0.00		0.01	0.09
v/c Ratio	0.35	0.70		0.68	0.60			0.29	0.03		0.14	0.46
Uniform Delay, d1	19.0	8.2		25.9	12.5			22.8	22.4		22.6	16.5
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.5	1.9		58.8	0.6			0.4	0.0		0.2	0.4
Delay (s)	19.4	10.1		84.7	13.1			23.3	22.4		22.8	16.9
Level of Service	B	B		F	B			C	C		C	B
Approach Delay (s)		11.3			14.3			22.8			17.2	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM Average Control Delay	13.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	52.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Kittelson & Associates, Inc. - Project #9700

Year 2011 Total Traffic Conditions, Weekday AM Peak Hour

Scenario Report

Scenario:	am
Command:	Default Command
Volume:	am
Geometry:	am
Impact Fee:	Default Impact Fee
Trip Generation:	Nyberg Lodge am
Trip Distribution:	Nyberg Lodge Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Traffix 7.9.0415 (c) 2007 Dowling Assoc. Licensed to KITTELSON, TUCSON, AZ

Kittelson & Associates, Inc. - Project #9700

Year 2011 Total Traffic Conditions, Weekday AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 5 SW 57th Ave / SW Nyberg Ln	B	10.3	0.000	B	10.4	0.000	+ 0.088 D/V
# 6 SW 65th Ave / SW Borland Rd	C	29.2	0.834	C	29.7	0.843	+ 0.496 D/V
# 7 SW 57th Ave / SW Borland Rd	C	16.5	0.000	C	16.8	0.000	+ 0.332 D/V
# 8 SW 50th Ave/SW Wilke Rd / SW B	B	14.8	0.000	C	15.1	0.000	+ 0.338 D/V

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Kittelson & Associates, Inc. - Project #9700

Year 2011 Total Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 SW 57th Ave / SW Nyberg Ln

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: B[10.4]

Street Name:	SW 57th Ave									SW Nyberg Ln					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0 1! 0	0	0	0 0 0 0	0	0	0 0 1	0	0	1 0	0
Volume Module: >> Count Date: 23 Oct 2008 << 7:10 AM to 8:10 AM												
Base Vol:	94	0	2	0	0	0	0	34	35	1	119	0
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	98	0	2	0	0	0	0	36	37	1	124	0
Added Vol:	2	0	0	0	0	0	0	2	1	0	5	0
In-Process:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	100	0	2	0	0	0	0	38	38	1	129	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	114	0	2	0	0	0	0	43	43	1	147	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	114	0	2	0	0	0	0	43	43	1	147	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	214	214	65	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	86	xxxx	xxxxx
Potent Cap.:	778	687	1005	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1523	xxxx	xxxxx
Move Cap.:	777	686	1004	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1521	xxxx	xxxxx
Volume/Cap:	0.15	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	781	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	10.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:		10.4			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		B			*			*			*	

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2011 Total Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 SW 65th Ave / SW Borland Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.843
Loss Time (sec):	16 (Y+R=0.0 sec)	Average Delay (sec/veh):	29.7
Optimal Cycle:	97	Level Of Service:	C

Street Name:	SW 65th Ave									SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0 0 1	0	1	0 0 1	0	0	0 1! 0	0	0	1 0	1
Volume Module: >> Count Date: 23 Oct 2008 << 7:35 AM to 8:35 AM												
Base Vol:	2	452	180	222	228	32	5	2	2	246	10	297
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	2	472	188	232	238	33	5	2	2	257	10	310
Added Vol:	0	5	0	0	2	0	0	0	0	0	0	0
In-Process :	0	2	1	3	6	0	0	0	0	2	0	3
Initial Fut:	2	479	189	235	246	33	5	2	2	259	10	313
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	2	499	197	245	257	35	5	2	2	270	11	326
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	499	197	245	257	35	5	2	2	270	11	326
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	499	197	245	257	35	5	2	2	270	11	326
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.91	0.92	0.92	0.90	0.93	0.93	0.94	0.94	0.94	0.92	0.92	0.82
Lanes:	1.00	0.72	0.28	1.00	0.88	0.12	0.56	0.22	0.22	0.96	0.04	1.00
Final Sat.:	1735	1255	495	1702	1549	210	994	398	398	1676	68	1554
Capacity Analysis Module:												
Vol/Sat:	0.00	0.40	0.40	0.14	0.17	0.17	0.01	0.01	0.01	0.16	0.16	0.21
Crit Moves:		****		****			****				****	
Green/Cycle:	0.48	0.47	0.47	0.68	0.64	0.64	0.01	0.01	0.01	0.19	0.19	0.36
Volume/Cap:	0.00	0.84	0.84	0.59	0.26	0.26	0.84	0.84	0.84	0.84	0.84	0.58
Delay/Veh:	13.7	31.0	31.0	16.6	8.0	8.0	226.9	227	226.9	56.4	56.4	27.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.7	31.0	31.0	16.6	8.0	8.0	226.9	227	226.9	56.4	56.4	27.3
LOS by Move:	B	C	C	B	A	A	F	F	F	E	E	C
HCM2kAvgQ:	0	21	21	5	4	4	1	1	1	11	11	9

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2011 Total Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 SW 57th Ave / SW Borland Rd

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: C[16.8]

Street Name:	SW 57th Ave						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0	0	0 0	1!	0 0	1 0	1	0 0	0 0	0	1 0
Volume Module: >> Count Date: 23 Oct 2008 << 7:35 AM to 8:35 AM												
Base Vol:	0	0	0	12	0	70	32	322	0	0	528	10
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	0	0	13	0	73	33	336	0	0	552	10
Added Vol:	0	0	0	1	0	0	0	0	0	0	0	2
In-Process :	0	0	0	0	0	0	0	4	0	0	5	0
Initial Fut:	0	0	0	14	0	73	33	340	0	0	557	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	15	0	81	37	378	0	0	619	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	15	0	81	37	378	0	0	619	14
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.6	6.3	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1080	1081	640	634	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	238	215	470	920	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	230	206	465	919	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.07	0.00	0.17	0.04	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	401	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	16.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			16.8			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2011 Total Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 SW 50th Ave/SW Wilke Rd / SW Borland Rd

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: C[15.1]

Street Name:	SW 50th Ave/SW Wilke Rd						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0	0	1 0	0	0 1	1 0	1	0 0	0 0	0	1 0
Volume Module: >> Count Date: 23 Oct 2008 << 7:35 AM to 8:35 AM												
Base Vol:	0	0	0	44	0	44	19	246	0	0	416	14
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	0	0	46	0	46	20	257	0	0	435	15
Added Vol:	0	0	0	2	0	0	0	1	0	0	2	5
In Process :	0	0	0	0	0	0	0	4	0	0	5	0
Initial Fut:	0	0	0	48	0	46	20	262	0	0	442	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	53	0	51	22	291	0	0	491	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	53	0	51	22	291	0	0	491	22
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.3	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	837	xxxx	502	513	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	333	xxxx	564	1038	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	327	xxxx	564	1038	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.16	xxxx	0.09	0.02	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.6	xxxx	0.3	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	18.1	xxxx	12.0	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	B	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			15.1			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑					↰	↕	↱↱
Volume (vph)	0	1462	919	144	1028	0	0	0	0	735	2	1231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4988	1538	1770	3438					1649	1653	2707
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4988	1538	1770	3438					1649	1653	2707
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1539	967	152	1082	0	0	0	0	774	2	1296
RTOR Reduction (vph)	0	0	528	0	0	0	0	0	0	0	0	245
Lane Group Flow (vph)	0	1539	439	152	1082	0	0	0	0	387	389	1051
Heavy Vehicles (%)	2%	4%	5%	2%	5%	2%	2%	2%	2%	4%	2%	5%
Turn Type			Perm	Prot						Split		custom
Protected Phases		2		1	6					4	4	4 5
Permitted Phases			2									
Actuated Green, G (s)		39.6	39.6	11.9	40.6					36.5	36.5	51.4
Effective Green, g (s)		39.6	39.6	11.9	40.6					36.5	36.5	51.4
Actuated g/C Ratio		0.40	0.40	0.12	0.41					0.36	0.36	0.51
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	
Vehicle Extension (s)		5.0	5.0	5.0	4.0					3.0	3.0	
Lane Grp Cap (vph)		1975	609	211	1396					602	603	1391
v/s Ratio Prot		0.31		0.09	c0.31					0.23	0.24	c0.39
v/s Ratio Perm			0.29									
v/c Ratio		0.78	0.72	0.72	0.78					0.64	0.65	0.76
Uniform Delay, d1		26.4	25.5	42.4	25.7					26.3	26.4	19.3
Progression Factor		1.00	1.00	1.00	0.74					1.00	1.00	1.00
Incremental Delay, d2		3.1	7.2	12.7	3.9					2.4	2.4	2.4
Delay (s)		29.5	32.8	55.3	23.0					28.7	28.7	21.7
Level of Service		C	C	E	C					C	C	C
Approach Delay (s)		30.8			26.9			0.0			24.3	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM Average Control Delay	27.7	HCM Level of Service	C
HCM Volume to Capacity ratio	~~0.73~~ 0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	~~4.0~~ 8.0
Intersection Capacity Utilization	95.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱↱		↑↑	↱	↰	↰	↱			
Volume (vph)	0	1186	1012	0	538	711	633	0	205	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.5	4.0	4.0	4.0	4.0			
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00			
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85			
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)		3539	2682		3539	1583	1588	1588	1583			
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)		3539	2682		3539	1583	1588	1588	1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1248	1065	0	566	748	666	0	216	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	48	0	0	0
Lane Group Flow (vph)	0	1248	1065	0	566	748	333	333	168	0	0	0
Heavy Vehicles (%)	2%	2%	6%	2%	2%	2%	8%	2%	2%	2%	2%	2%
Turn Type			Free			Free	Split		Perm			
Protected Phases		2			6		8	8				
Permitted Phases			Free			Free			8			
Actuated Green, G (s)		65.3	100.0		64.8	100.0	26.7	26.7	26.7			
Effective Green, g (s)		65.3	100.0		64.8	100.0	26.7	26.7	26.7			
Actuated g/C Ratio		0.65	1.00		0.65	1.00	0.27	0.27	0.27			
Clearance Time (s)		4.0			4.5		4.0	4.0	4.0			
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)		2311	2682		2293	1583	424	424	423			
v/s Ratio Prot		c0.35			0.16		c0.21	0.21				
v/s Ratio Perm			0.40			0.47			0.11			
v/c Ratio		0.54	0.40		0.25	0.47	0.79	0.79	0.40			
Uniform Delay, d1		9.3	0.0		7.4	0.0	34.0	34.0	30.1			
Progression Factor		0.59	1.00		1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2		0.6	0.3		0.3	1.0	9.2	9.2	0.6			
Delay (s)		6.1	0.3		7.6	1.0	43.2	43.2	30.7			
Level of Service		A	A		A	A	D	D	C			
Approach Delay (s)		3.4			3.9			40.2			0.0	
Approach LOS		A			A			D			A	

Intersection Summary			
HCM Average Control Delay	10.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	243	1062	57	21	952	56	96	9	18	79	8	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	0.97	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.96	1.00
Satd. Flow (prot)	3433	3512		1787	3510			1781	1583		1782	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.68	1.00		0.67	1.00
Satd. Flow (perm)	3433	3512		1787	3510			1264	1583		1243	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	256	1118	60	22	1002	59	101	9	19	83	8	182
RTOR Reduction (vph)	0	4	0	0	5	0	0	0	15	0	0	148
Lane Group Flow (vph)	256	1174	0	22	1056	0	0	110	4	0	91	34
Heavy Vehicles (%)	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	6.1	31.9		0.8	26.6			11.5	11.5		11.5	11.5
Effective Green, g (s)	6.1	31.9		0.8	26.6			11.5	11.5		11.5	11.5
Actuated g/C Ratio	0.10	0.51		0.01	0.43			0.18	0.18		0.18	0.18
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	337	1801		23	1501			234	293		230	293
v/s Ratio Prot	c0.07	c0.33		0.01	0.30							
v/s Ratio Perm								c0.09	0.00		0.07	0.02
v/c Ratio	0.76	0.65		0.96	0.70			0.47	0.01		0.40	0.11
Uniform Delay, d1	27.3	11.1		30.7	14.6			22.6	20.7		22.3	21.1
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	9.5	0.9		166.5	1.5			1.5	0.0		1.1	0.2
Delay (s)	36.8	11.9		197.2	16.1			24.1	20.7		23.4	21.3
Level of Service	D	B		F	B			C	C		C	C
Approach Delay (s)		16.4			19.8			23.6			22.0	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	18.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	62.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	62.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	303	776	28	24	833	23	31	8	47	11	9	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.97	1.00
Satd. Flow (prot)	1770	1853		1770	3525			1791	1583		1811	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.82	1.00		0.80	1.00
Satd. Flow (perm)	1770	1853		1770	3525			1528	1583		1491	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	319	817	29	25	877	24	33	8	49	12	9	153
RTOR Reduction (vph)	0	1	0	0	2	0	0	0	46	0	0	21
Lane Group Flow (vph)	319	845	0	25	899	0	0	41	3	0	21	132
Turn Type	Prot			Prot			Perm		Perm	Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8		8	4		4
Actuated Green, G (s)	15.0	37.8		1.6	24.4			4.4	4.4		4.4	19.4
Effective Green, g (s)	15.0	37.8		1.6	24.4			4.4	4.4		4.4	19.4
Actuated g/C Ratio	0.24	0.61		0.03	0.39			0.07	0.07		0.07	0.31
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	2.4	2.5		2.6	2.5			1.6	1.6		1.6	2.4
Lane Grp Cap (vph)	430	1133		46	1392			109	113		106	651
v/s Ratio Prot	c0.18	c0.46		0.01	0.25							0.05
v/s Ratio Perm								c0.03	0.00		0.01	0.03
v/c Ratio	0.74	0.75		0.54	0.65			0.38	0.03		0.20	0.20
Uniform Delay, d1	21.6	8.6		29.7	15.2			27.4	26.7		27.0	15.5
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	6.3	2.6		10.5	0.9			0.8	0.0		0.3	0.1
Delay (s)	27.9	11.1		40.2	16.1			28.2	26.8		27.4	15.6
Level of Service	C	B		D	B			C	C		C	B
Approach Delay (s)		15.7			16.8			27.4			17.0	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM Average Control Delay	16.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	61.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Kittelson & Associates, Inc. - Project #9700

Year 2011 Total Traffic Conditions, Weekday PM Peak Hour

Scenario Report

Scenario:	pm
Command:	Default Command
Volume:	pm
Geometry:	pm
Impact Fee:	Default Impact Fee
Trip Generation:	Nyberg Lodge pm
Trip Distribution:	Nyberg Lodge Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Kittelson & Associates, Inc. - Project #9700

Year 2011 Total Traffic Conditions, Weekday PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 5 SW 57th Ave / SW Nyberg Ln	B	10.7	0.000	B	10.8	0.000	+ 0.181 D/V
# 6 SW 65th Ave / SW Borland Rd	C	32.9	0.881	C	34.7	0.899	+ 1.764 D/V
# 7 SW 57th Ave / SW Borland Rd	B	14.0	0.000	B	14.7	0.000	+ 0.660 D/V
# 8 SW 50th Ave/SW Wilke Rd / SW B	C	16.9	0.000	C	18.2	0.000	+ 1.285 D/V

Kittelson & Associates, Inc. - Project #9700

Year 2011 Total Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 SW 57th Ave / SW Nyberg Ln

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: B[10.8]

Street Name:	SW 57th Ave						SW Nyberg Ln					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Volume Module: >> Count Date: 23 Oct 2008 << 4:35 PM to 5:35 PM												
Base Vol:	60	0	2	0	0	0	0	113	76	2	74	0
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	63	0	2	0	0	0	0	118	79	2	77	0
Added Vol:	3	0	0	0	0	0	0	6	2	0	9	0
In-Process:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	0	2	0	0	0	0	124	81	2	86	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	73	0	2	0	0	0	0	138	90	2	96	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	73	0	2	0	0	0	0	138	90	2	96	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	296	294	184	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	229	xxxx	xxxxx
Potent Cap.:	695	617	858	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1333	xxxx	xxxxx
Move Cap.:	688	611	858	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1332	xxxx	xxxxx
Volume/Cap:	0.11	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	-	LTR - RT	LT	-	LTR - RT	LT	-	LTR - RT	LT	-	LTR - RT
Shared Cap.:	xxxx	692	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	10.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:		10.8		xxxxxx			xxxxxx			xxxxxx		
ApprcachLOS:		B		*			*			*		

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2011 Total Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 SW 65th Ave / SW Borland Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.899
Loss Time (sec): 16 (Y+R=0.0 sec) Average Delay (sec/veh): 34.7
Optimal Cycle: 116 Level Of Service: C

Street Name:	SW 65th Ave									SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T - R	L	-	T - R	L	-	T - R	L	-	T - R			
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase					
Rights:	Include			Include			Include			Ovl					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Lanes:	1	0	0 1 0	1	0	0 1 0	0	0	1! 0 0	0	1	0 0 1			
Volume Module: >> Count Date: 23 Oct 2008 << 4:35 PM to 5:35 PM															
Base Vol:	2	315	267	323	396	4	29	5	2	235	1	233			
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05			
Initial Bse:	2	329	279	338	414	4	30	5	2	246	1	243			
Added Vol:	0	9	0	0	6	0	0	0	0	0	0	0			
In-Process :	0	12	4	1	5	0	0	0	0	1	0	2			
Initial Fut:	2	350	283	339	425	4	30	5	2	247	1	245			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
PHF Volume:	2	369	298	356	447	4	32	5	2	260	1	258			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	2	369	298	356	447	4	32	5	2	260	1	258			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	2	369	298	356	447	4	32	6	2	260	1	258			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.93	0.91	0.91	0.92	0.97	0.97	0.95	0.95	0.95	0.94	0.94	0.84			
Lanes:	1.00	0.55	0.45	1.00	0.99	0.01	0.80	0.14	0.06	0.99	0.01	1.00			
Final Sat.:	1768	958	774	1752	1825	18	1459	252	101	1785	8	1599			
Capacity Analysis Module:															
Vol/Sat:	0.00	0.38	0.38	0.20	0.25	0.25	0.02	0.02	0.02	0.15	0.15	0.16			
Crit Moves:		****		****				****		****					
Green/Cycle:	0.43	0.43	0.43	0.69	0.65	0.65	0.02	0.02	0.02	0.16	0.16	0.39			
Volume/Cap:	0.01	0.90	0.90	0.72	0.38	0.38	0.90	0.90	0.90	0.90	0.90	0.42			
Delay/Veh:	16.2	40.5	40.5	28.2	8.3	8.3	145.9	146	145.9	69.6	69.6	22.8			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	16.2	40.5	40.5	28.2	8.3	8.3	145.9	146	145.9	69.6	69.6	22.8			
LOS by Move:	B	D	D	C	A	A	F	F	F	E	E	C			
HCM2kAvgQ:	0	23	23	8	6	6	3	3	3	11	11	6			

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2011 Total Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 SW 57th Ave / SW Borland Rd

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[14.7]

Street Name:	SW 57th Ave						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 1 0 0			0 0 0 1 0		
Volume Module: >> Count Date: 23 Oct 2008 << 4:45 PM to 5:45 PM												
Base Vol:	0	0	0	9	0	40	41	545	0	0	343	26
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	0	0	9	0	42	43	570	0	0	358	27
Added Vol:	0	0	0	2	0	0	0	0	0	0	0	3
In-Process :	0	0	0	0	0	0	0	5	0	0	3	0
Initial Fut:	0	0	0	11	0	42	43	575	0	0	361	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	0	0	0	13	0	48	49	660	0	0	415	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	13	0	48	49	660	0	0	415	35
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1192	1192	433	450	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	209	189	627	1116	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	202	180	627	1116	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.06	0.00	0.08	0.04	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	432	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	14.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx				14.7		xxxxxx			xxxxxx		
ApproachLOS:	*				B		*			*		

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2011 Total Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 SW 50th Ave/SW Wilke Rd / SW Borland Rd

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: C[18.2]

Street Name:	SW 50th Ave/SW Wilke Rd						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 1 0 0			0 0 0 1 0		
Volume Module: >> Count Date: 23 Oct 2008 << 4:45 PM to 5:45 PM												
Base Vol:	0	0	0	29	0	31	42	466	0	0	311	45
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	0	0	30	0	32	44	487	0	0	325	47
Added Vol:	0	0	0	6	0	0	0	2	0	0	3	9
In-Process :	0	0	0	0	0	0	0	5	0	0	3	0
Initial Fut:	0	0	0	36	0	32	44	494	0	0	331	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
PHF Volume:	0	0	0	42	0	38	51	574	0	0	385	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	42	0	38	51	574	0	0	385	65
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1094	xxxx	425	450	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	236	xxxx	627	1110	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	227	xxxx	623	1110	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.19	xxxx	0.06	0.05	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.7	xxxx	0.2	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	24.4	xxxx	11.2	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	B	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			18.2			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

Appendix H
Queuing Analysis
Worksheets

Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	319	846	25	901	41	49	21	153
v/c Ratio	0.66	0.61	0.14	0.72	0.20	0.19	0.10	0.23
Control Delay	30.2	13.2	32.5	20.9	28.1	10.8	26.9	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.2	13.2	32.5	20.9	28.1	10.8	26.9	9.5
Queue Length 50th (ft)	102	127	9	152	14	0	7	24
Queue Length 95th (ft)	#267	#596	34	263	41	26	26	59
Internal Link Dist (ft)		263		1300	318		678	
Turn Bay Length (ft)	250		100					
Base Capacity (vph)	602	1344	177	1766	458	510	447	767
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.63	0.14	0.51	0.09	0.10	0.05	0.20

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Project Name:	Stafford Hills
Project #:	9700
Analysis Scenario:	2011 Total Traffic Conditions
Analysis Period:	0.25 (peak 15 minute analysis)
Analyst:	SZA
Date:	February 17, 2009

V = flow rate for movement
C = capacity of movement
Q = 95th percentile queue (veh)
S = storage need (ft)

# of Int:	2
Veh. Length (ft):	25

* Queue length calculated using Equation (17-37) presented in *Highway Capacity Manual 2000*.

AM

	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT
V	12											
C	595											
Q	0.1											
S	25											

Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	348	1038	28	1345	46	55	24	164
v/c Ratio	0.78	0.75	0.22	0.88	0.31	0.25	0.15	0.26
Control Delay	44.2	15.7	42.6	27.9	39.3	13.1	35.2	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	15.7	42.6	27.9	39.3	13.1	35.2	15.4
Queue Length 50th (ft)	158	206	13	290	21	0	11	45
Queue Length 95th (ft)	#372	#840	43	#469	54	32	34	93
Internal Link Dist (ft)		263		1300	318		678	
Turn Bay Length (ft)	250		100					
Base Capacity (vph)	451	1378	125	1951	298	380	319	644
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.75	0.22	0.69	0.15	0.14	0.08	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Project Name:	Stafford Hills
Project #:	9700
Analysis Scenario:	2028 Total Traffic Conditions
Analysis Period:	0.25 (peak 15 minute analysis)
Analyst:	SZA
Date:	February 17, 2009

V = flow rate for movement
C = capacity of movement
Q = 95th percentile queue (veh)
S = storage need (ft)

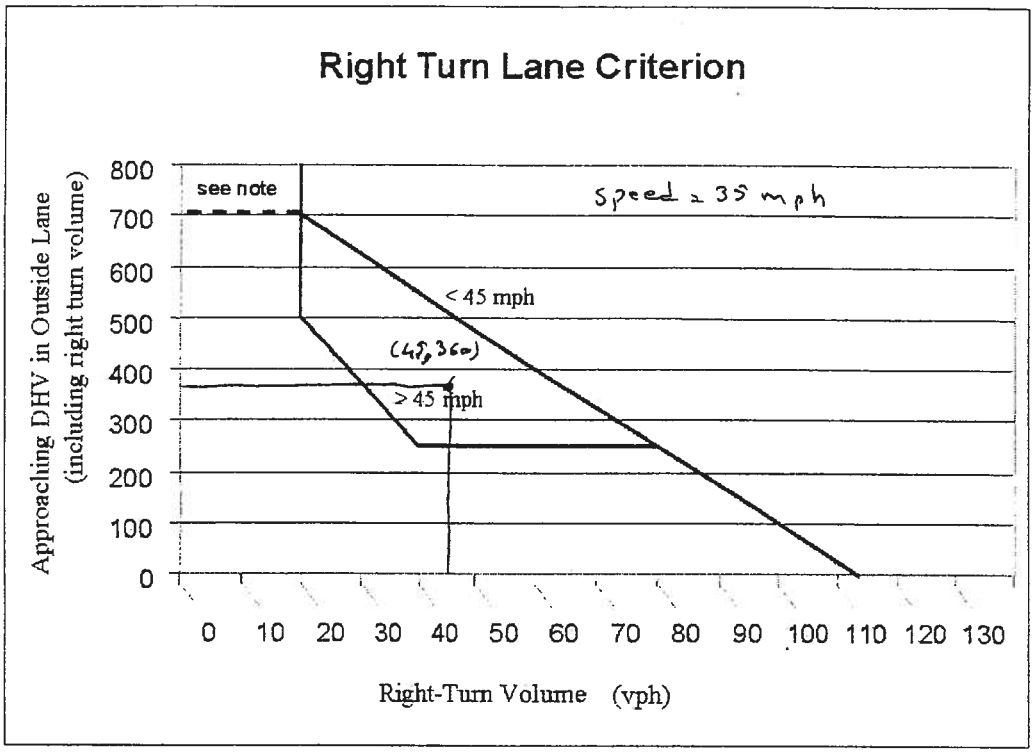
# of Int:	2
Veh. Length (ft):	25

* Queue length calculated using Equation (17-37) presented in *Highway Capacity Manual 2000*.

		NB LT	NB TH	NB RT	SB LT	SB TH	SB RT	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT
AM	V	12											
	C	547											
	Q	0.1											
	S	25											
PM	V	34											
	C	502											
	Q	0.2											
	S	25											

Appendix I
Right-Turn Lane Warrant
Worksheet

Figure 7-3 Right Turn Lane Criterion



Note: If there is no right turn lane, a shoulder needs to be provided. If this intersection is in a rural area and is a connection to a public street, a right turn lane is needed.

Criterion 2: Crash Experience

The crash experience criterion is satisfied when:

1. Adequate trial of other remedies with satisfactory observance and enforcement has failed to reduce the accident frequency; **and**
2. A history of crashes of the type susceptible to correction by a right turn lane; **and**
3. The safety benefits outweigh the associated improvements costs; **and**
4. The installation of the right turn lane minimizes impacts to the safety of vehicles, bicycles or pedestrians along the roadway.

Appendix J
Year 2028 Background
Traffic Level-Of-Service
Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑					↰	↕	↱↱
Volume (vph)	0	1611	700	135	1322	0	0	0	0	663	0	1057
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4715	1380	1752	3343					1665	1665	2632
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4715	1380	1752	3348					1665	1665	2632
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1661	722	139	1363	0	0	0	0	684	0	1090
RTOR Reduction (vph)	0	0	362	0	0	0	0	0	0	0	0	300
Lane Group Flow (vph)	0	1661	360	139	1363	0	0	0	0	342	342	790
Heavy Vehicles (%)	2%	10%	17%	3%	8%	2%	2%	2%	2%	3%	2%	8%
Turn Type			Perm	Prot						Split		custom
Protected Phases		2		1	6					4	4	4 5
Permitted Phases			2									
Actuated Green, G (s)		59.9	59.9	13.6	63.3					34.5	34.5	48.7
Effective Green, g (s)		59.9	59.9	13.6	63.3					34.5	34.5	48.7
Actuated g/C Ratio		0.50	0.50	0.11	0.53					0.29	0.29	0.41
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	
Vehicle Extension (s)		5.0	5.0	5.0	4.0					3.0	3.0	
Lane Grp Cap (vph)		2354	689	199	1763					479	479	1068
v/s Ratio Prot		0.35		0.08	c0.41					0.21	0.21	c0.30
v/s Ratio Perm			0.26									
v/c Ratio		0.71	0.52	0.70	0.77					0.71	0.71	0.74
Uniform Delay, d1		23.2	20.4	51.2	22.6					38.3	38.3	30.3
Progression Factor		1.00	1.00	1.20	0.65					1.00	1.00	1.00
Incremental Delay, d2		1.8	2.8	11.1	2.9					5.0	5.0	2.7
Delay (s)		25.0	23.2	72.6	17.5					43.3	43.3	33.0
Level of Service		C	C	E	B					D	D	C
Approach Delay (s)		24.5			22.6			0.0			37.0	
Approach LOS		C			C			A			D	

Intersection Summary			
HCM Average Control Delay	27.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱↱		↑↑	↱	↰	↑	↱			
Volume (vph)	0	1082	1192	0	472	998	985	7	246	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.5	4.0	4.0	4.0	4.0			
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00			
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85			
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)		3471	2561		3471	1568	1559	1565	1553			
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)		3471	2561		3471	1568	1559	1565	1553			
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	1127	1242	0	492	1040	1026	7	256	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	19	0	0	0
Lane Group Flow (vph)	0	1127	1242	0	492	1040	513	520	237	0	0	0
Heavy Vehicles (%)	2%	4%	11%	2%	4%	3%	10%	2%	4%	2%	2%	2%
Turn Type			Free			Free	Split		Perm			
Protected Phases		2			6		8	8				
Permitted Phases			Free			Free			8			
Actuated Green, G (s)		62.7	120.0		62.2	120.0	49.3	49.3	49.3			
Effective Green, g (s)		62.7	120.0		62.2	120.0	49.3	49.3	49.3			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.41	0.41	0.41			
Clearance Time (s)		4.0			4.5		4.0	4.0	4.0			
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)		1814	2561		1799	1568	640	643	638			
v/s Ratio Prot		0.32			0.14		0.33	c0.33				
v/s Ratio Perm			0.49			c0.66			0.15			
v/c Ratio		0.62	0.48		0.27	0.66	0.80	0.81	0.37			
Uniform Delay, d1		20.3	0.0		16.2	0.0	31.1	31.2	24.6			
Progression Factor		0.84	1.00		1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2		1.2	0.5		0.4	2.2	7.2	7.4	0.4			
Delay (s)		18.2	0.5		16.6	2.2	38.2	38.6	24.9			
Level of Service		B	A		B	A	D	D	C			
Approach Delay (s)		8.9			6.8			35.7			0.0	
Approach LOS		A			A			D			A	

Intersection Summary			
HCM Average Control Delay	15.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	64.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	172	1132	24	23	1302	72	113	2	3	54	5	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	0.97	0.95		1.00	*0.75			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.96	1.00
Satd. Flow (prot)	3433	3429		1570	2747			1663	1214		1781	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.68	1.00		0.66	1.00
Satd. Flow (perm)	3433	3429		1570	2747			1195	1214		1231	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	177	1167	25	24	1342	74	116	2	3	56	5	57
RTOR Reduction (vph)	0	1	0	0	3	0	0	0	3	0	0	49
Lane Group Flow (vph)	177	1191	0	24	1413	0	0	118	0	0	61	8
Heavy Vehicles (%)	2%	5%	2%	15%	3%	2%	9%	2%	33%	2%	2%	2%
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	5.1	50.6		2.2	47.7			11.8	11.8		11.8	11.8
Effective Green, g (s)	5.1	50.6		2.2	47.7			11.8	11.8		11.8	11.8
Actuated g/C Ratio	0.06	0.61		0.03	0.58			0.14	0.14		0.14	0.14
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	212	2101		42	1586			171	173		176	226
v/s Ratio Prot	c0.05	c0.35		0.02	c0.51							
v/s Ratio Perm								c0.10	0.00		0.05	0.01
v/c Ratio	0.83	0.57		0.57	0.89			0.69	0.00		0.35	0.04
Uniform Delay, d1	38.3	9.5		39.7	15.2			33.7	30.4		31.9	30.5
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	23.7	0.4		17.4	6.7			11.4	0.0		1.2	0.1
Delay (s)	62.0	9.8		57.1	21.9			45.0	30.4		33.1	30.6
Level of Service	E	A		E	C			D	C		C	C
Approach Delay (s)		16.6			22.5			44.7			31.9	
Approach LOS		B			C			D			C	

Intersection Summary			
HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	~~0.94~~ 0.84		
Actuated Cycle Length (s)	82.6	Sum of lost time (s)	~~24.0~~ 18.0
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	86	1008	24	16	927	2	37	5	44	13	5	371
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.97	1.00
Satd. Flow (prot)	1671	1836		1687	3470			1769	1429		1713	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.74	1.00		0.76	1.00
Satd. Flow (perm)	1671	1836		1687	3470			1363	1429		1347	1583
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	88	1029	24	16	946	2	38	5	45	13	5	379
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	41	0	0	46
Lane Group Flow (vph)	88	1052	0	16	948	0	0	43	4	0	18	333
Heavy Vehicles (%)	8%	3%	10%	7%	4%	2%	3%	2%	13%	9%	2%	2%
Turn Type	Prot			Prot			Perm		Perm	Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8		8	4		4
Actuated Green, G (s)	14.5	46.5		0.7	32.7			5.9	5.9		5.9	20.4
Effective Green, g (s)	14.5	46.5		0.7	32.7			5.9	5.9		5.9	20.4
Actuated g/C Ratio	0.20	0.65		0.01	0.46			0.08	0.08		0.08	0.29
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	2.4	2.5		2.6	2.5			1.6	1.6		1.6	2.4
Lane Grp Cap (vph)	341	1201		17	1596			113	119		112	588
v/s Ratio Prot	0.05	c0.57		0.01	0.27							c0.12
v/s Ratio Perm								0.03	0.00		0.01	0.09
v/c Ratio	0.26	0.88		0.94	0.59			0.38	0.03		0.16	0.57
Uniform Delay, d1	23.8	10.0		35.2	14.3			30.9	30.0		30.3	21.6
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.3	7.4		188.5	0.5			0.8	0.0		0.2	1.0
Delay (s)	24.0	17.3		223.7	14.8			31.7	30.0		30.5	22.6
Level of Service	C	B		F	B			C	C		C	C
Approach Delay (s)		17.8			18.2			30.8			22.9	
Approach LOS		B			B			C			C	

Intersection Summary				
HCM Average Control Delay	19.2	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.84			
Actuated Cycle Length (s)	71.1	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	82.7%	ICU Level of Service	E	
Analysis Period (min)	15			

c Critical Lane Group

Kittelson & Associates, Inc. - Project #9700

Year 2028 Background Traffic Conditions, Weekday AM Peak Hour

Scenario Report

Scenario:	am
Command:	Default Command
Volume:	am
Geometry:	am
Impact Fee:	Default Impact Fee
Trip Generation:	Nyberg Lodge am
Trip Distribution:	Nyberg Lodge Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Traffix 7.9.0415 (c) 2007 Dowling Assoc. Licensed to KITTELSON, TUCSON, AZ

Kittelson & Associates, Inc. - Project #9700

Year 2028 Background Traffic Conditions, Weekday AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Del/ Veh	V/ C	Future LOS	Del/ Veh	V/ C	Change in
# 5 SW 57th Ave / SW Nyberg Ln	B	10.4	0.000	B	10.4	0.000	+ 0.000 D/V
# 6 SW 65th Ave / SW Borland Rd	D	37.5	0.920	D	38.2	0.924	+ 0.629 D/V
# 7 SW 57th Ave / SW Borland Rd	C	17.3	0.000	C	22.4	0.000	+ 5.040 D/V
# 8 SW 50th Ave/SW Wilke Rd / SW B	C	15.4	0.000	C	19.2	0.000	+ 3.867 D/V

Kittelson & Associates, Inc. - Project #9700

Year 2028 Background Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 SW 57th Ave / SW Nyberg Ln

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: B[10.4]

Street Name:	SW 57th Ave									SW Nyberg Ln					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R			
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0 1! 0	0	0	0 0 0	0 0	0	0 0	1 0	0	1	0 0	0		
Volume Module: >> Count Date: 23 Oct 2008 << 7:10 AM to 8:10 AM															
Base Vol:	94	0	2	0	0	0	0	34	35	1	119	0			
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15			
Initial Bse:	108	0	2	0	0	0	0	39	40	1	137	0			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	108	0	2	0	0	0	0	39	40	1	137	0			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
PHF Volume:	114	0	2	0	0	0	0	41	42	1	144	0			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
FinalVolume:	114	0	2	0	0	0	0	41	42	1	144	0			
Critical Gap Module:															
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx			
Capacity Module:															
Cnflict Vol:	210	210	63	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	85	xxxx	xxxxx			
Potent Cap.:	778	687	1001	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1512	xxxx	xxxxx			
Move Cap.:	777	686	1000	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1511	xxxx	xxxxx			
Volume/Cap:	0.15	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx			
Level Of Service Module:															
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT			
Shared Cap.:	xxxx	781	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Shrd ConDel:	xxxxx	10.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx			
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*			
ApproachDel:	10.4			xxxxxx			xxxxxx			xxxxxx					
ApproachLOS:	B			*			*			*					

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2028 Background Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 SW 65th Ave / SW Borland Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.924
Loss Time (sec): 16 (Y+R=0.0 sec) Average Delay (sec/veh): 38.2
Optimal Cycle: 127 Level Of Service: D

Street Name:	SW 65th Ave									SW Borland Rd								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Prot+Permit					Prot+Permit					Split Phase					Split Phase				
Rights:	Include					Include					Include					Ovl				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Lanes:	1	0	0	1	0	1	0	0	1	0	0	0	1!	0	0	0	1	0	0	1
Volume Module: >> Count Date: 23 Oct 2008 << 7:35 AM to 8:35 AM																				
Base Vol:	2	452	180			222	228	32			5	2	2			246	10	297		
Growth Adj:	1.15	1.15	1.15			1.15	1.15	1.15			1.15	1.15	1.15			1.15	1.15	1.15		
Initial Bse:	2	521	207			256	263	37			6	2	2			283	12	342		
Added Vol:	0	0	5			0	0	0			0	0	0			1	0	10		
PasserByVol:	0	0	0			0	0	0			0	0	0			0	0	0		
Initial Fut:	2	521	212			256	263	37			6	2	2			284	12	352		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	0.96	0.96	0.96			0.96	0.96	0.96			0.96	0.96	0.96			0.96	0.96	0.96		
PHF Volume:	2	542	221			266	274	38			6	2	2			296	12	367		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	2	542	221			266	274	38			6	2	2			296	12	367		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
FinalVolume:	2	542	221			266	274	38			6	2	2			296	12	367		
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900			1900	1900	1900			1900	1900	1900			1900	1900	1900		
Adjustment:	0.91	0.92	0.92			0.90	0.93	0.93			0.92	0.92	0.92			0.92	0.92	0.82		
Lanes:	1.00	0.71	0.29			1.00	0.88	0.12			0.56	0.22	0.22			0.96	0.04	1.00		
Final Sat.:	1735	1242	507			1702	1543	217			975	390	390			1676	68	1554		
Capacity Analysis Module:																				
Vol/Sat:	0.00	0.44	0.44			0.16	0.18	0.18			0.01	0.01	0.01			0.18	0.18	0.24		
Crit Moves:		****				****					****						****			
Green/Cycle:	0.48	0.47	0.47			0.68	0.64	0.64			0.01	0.01	0.01			0.19	0.19	0.36		
Volume/Cap:	0.00	0.92	0.92			0.72	0.28	0.28			0.92	0.92	0.92			0.92	0.92	0.65		
Delay/Veh:	13.7	40.6	40.6			32.1	8.1	8.1			270.2	270	270.2			70.2	70.2	29.5		
User DelAdj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
AdjDel/Veh:	13.7	40.6	40.6			32.1	8.1	8.1			270.2	270	270.2			70.2	70.2	29.5		
LOS by Move:	B		D		D	C		A		A	F		F		F	E		E		C
HCM2kAvgQ:	0		26		26	7		4		4	1		1		1	13		13		10

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2028 Background Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 SW 57th Ave / SW Borland Rd

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: C[22.4]

Street Name:	SW 57th Ave									SW Borland Rd								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	1	0	0	0	0	0	1	0
Volume Module: >> Count Date: 23 Oct 2008 << 7:35 AM to 8:35 AM																				
Base Vol:	0	0	0			12	0	70			32	322	0			0	528	10		
Growth Adj:	1.15	1.15	1.15			1.15	1.15	1.15			1.15	1.15	1.15			1.15	1.15	1.15		
Initial Bse:	0	0	0			14	0	81			37	371	0			0	608	12		
Added Vol:	0	0	0			0	0	0			0	26	0			0	166	0		
PasserByVol:	0	0	0			0	0	0			0	0	0			0	0	0		
Initial Fut:	0	0	0			14	0	81			37	397	0			0	774	12		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95		
PHF Volume:	0	0	0			15	0	85			39	418	0			0	815	12		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
FinalVolume:	0	0	0			15	0	85			39	418	0			0	815	12		
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			6.4	6.6	6.3			4.2	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	4.0	3.3			2.3	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			1319	1320	835			829	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Potent Cap.:	xxxx	xxxx	xxxxx			171	155	363			777	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Move Cap.:	xxxx	xxxx	xxxxx			164	147	359			776	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Volume/Cap:	xxxx	xxxx	xxxx			0.09	0.00	0.24			0.05	xxxx	xxxx			xxxx	xxxx	xxxx		
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			0.2	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Control Del:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			9.9	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
LOS by Move:	*		*		*	*		*		*	A		*		*	*		*		*
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx		306	xxxxx		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx		1.4	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx		22.4	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*		*		*	*		C		*	*		*		*	*		*		*
ApproachDel:	xxxxxx					22.4					xxxxxx					xxxxxx				
ApproachLOS:	*					C					*					*				

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2028 Background Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 SW 50th Ave/SW Wilke Rd / SW Borland Rd

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: C[19.2]

Street Name:	SW 50th Ave/SW Wilke Rd						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 1 0 0			0 0 0 1 0		
Volume Module: >> Count Date: 23 Oct 2008 << 7:35 AM to 8:35 AM												
Base Vol:	0	0	0	44	0	44	19	246	0	0	416	14
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Initial Bse:	0	0	0	51	0	51	22	283	0	0	479	16
Added Vol:	0	0	0	0	0	0	0	26	0	0	166	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	51	0	51	22	309	0	0	645	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	53	0	53	23	326	0	0	679	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	53	0	53	23	326	0	0	679	17
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.3	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1059	xxxx	688	696	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	245	xxxx	441	886	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	240	xxxx	441	886	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.22	xxxx	0.12	0.03	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.8	xxxx	0.4	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	24.2	xxxx	14.3	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	B	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			19.2			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑					↰	↰	↱↱
Volume (vph)	0	1659	959	162	1120	0	0	0	0	934	2	1199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4988	1538	1770	3438					1649	1653	2707
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4988	1538	1770	3438					1649	1653	2707
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1710	989	167	1155	0	0	0	0	963	2	1236
RTOR Reduction (vph)	0	0	491	0	0	0	0	0	0	0	0	262
Lane Group Flow (vph)	0	1710	498	167	1155	0	0	0	0	481	484	974
Heavy Vehicles (%)	2%	4%	5%	2%	5%	2%	2%	2%	2%	4%	2%	5%
Turn Type			Perm	Prot						Split		custom
Protected Phases		2		1	6					4	4	4 5
Permitted Phases			2									
Actuated Green, G (s)		51.1	51.1	14.6	54.3					42.3	42.3	57.7
Effective Green, g (s)		51.1	51.1	14.6	54.3					42.3	42.3	57.7
Actuated g/C Ratio		0.43	0.43	0.12	0.45					0.35	0.35	0.48
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	
Vehicle Extension (s)		5.0	5.0	5.0	4.0					3.0	3.0	
Lane Grp Cap (vph)		2124	655	215	1556					581	583	1302
v/s Ratio Prot		c0.34		0.09	c0.34					0.29	c0.29	c0.36
v/s Ratio Perm			0.32									
v/c Ratio		0.81	0.76	0.78	0.74					0.83	0.83	0.75
Uniform Delay, d1		30.1	29.2	51.1	27.1					35.5	35.6	25.3
Progression Factor		1.00	1.00	0.88	0.86					1.00	1.00	1.00
Incremental Delay, d2		3.4	8.1	17.0	3.0					9.5	9.7	2.4
Delay (s)		33.5	37.3	62.2	26.4					45.0	45.3	27.6
Level of Service		C	D	E	C					D	D	C
Approach Delay (s)		34.9			30.9			0.0			35.3	
Approach LOS		C			C			A			D	

Intersection Summary			
HCM Average Control Delay	34.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱↱		↑↑	↱	↰	↰↑	↱			
Volume (vph)	0	1400	1193	0	665	993	617	6	169	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.5	4.0	4.0	4.0	4.0			
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00			
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85			
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)		3539	2682		3539	1583	1588	1595	1583			
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)		3539	2682		3539	1583	1588	1595	1583			
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	1458	1243	0	693	1034	643	6	176	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	30	0	0	0
Lane Group Flow (vph)	0	1458	1243	0	693	1034	321	328	146	0	0	0
Heavy Vehicles (%)	2%	2%	6%	2%	2%	2%	8%	2%	2%	2%	2%	2%
Turn Type			Free			Free	Split		Perm			
Protected Phases		2			6		8	8				
Permitted Phases			Free			Free			8			
Actuated Green, G (s)		81.2	120.0		80.7	120.0	30.8	30.8	30.8			
Effective Green, g (s)		81.2	120.0		80.7	120.0	30.8	30.8	30.8			
Actuated g/C Ratio		0.68	1.00		0.67	1.00	0.26	0.26	0.26			
Clearance Time (s)		4.0			4.5		4.0	4.0	4.0			
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)		2395	2682		2380	1583	408	409	406			
v/s Ratio Prot		0.41			0.20		0.20	c0.21				
v/s Ratio Perm			0.46			c0.65			0.09			
v/c Ratio		0.61	0.46		0.29	0.65	0.79	0.80	0.36			
Uniform Delay, d1		10.7	0.0		8.0	0.0	41.5	41.7	36.5			
Progression Factor		0.75	1.00		1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2		0.7	0.3		0.3	2.1	9.6	10.8	0.5			
Delay (s)		8.7	0.3		8.3	2.1	51.2	52.6	37.1			
Level of Service		A	A		A	A	D	D	D			
Approach Delay (s)		4.9			4.6			48.7			0.0	
Approach LOS		A			A			D			A	

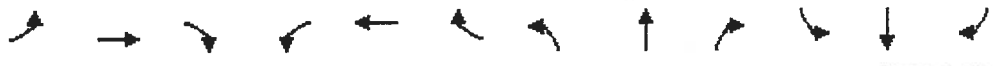
Intersection Summary			
HCM Average Control Delay	11.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	243	1264	88	23	1374	56	106	10	20	79	9	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	0.97	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.96	1.00
Satd. Flow (prot)	3433	3505		1787	3518			1782	1583		1782	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.68	1.00		0.66	1.00
Satd. Flow (perm)	3433	3505		1787	3518			1267	1583		1232	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	256	1331	93	24	1446	59	112	11	21	83	9	189
RTOR Reduction (vph)	0	5	0	0	3	0	0	0	17	0	0	109
Lane Group Flow (vph)	256	1419	0	24	1502	0	0	123	4	0	92	80
Heavy Vehicles (%)	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	7.1	47.4		1.8	42.1			13.5	13.5		13.5	13.5
Effective Green, g (s)	7.1	47.4		1.8	42.1			13.5	13.5		13.5	13.5
Actuated g/C Ratio	0.09	0.59		0.02	0.52			0.17	0.17		0.17	0.17
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	302	2059		40	1835			212	265		206	265
v/s Ratio Prot	c0.07	c0.41		0.01	c0.43							
v/s Ratio Perm								c0.10	0.00		0.07	0.05
v/c Ratio	0.85	0.69		0.60	0.82			0.58	0.01		0.45	0.30
Uniform Delay, d1	36.3	11.5		39.1	16.1			31.0	28.0		30.2	29.5
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	19.3	1.0		22.8	3.0			4.0	0.0		1.5	0.6
Delay (s)	55.5	12.5		61.9	19.1			35.0	28.1		31.8	30.1
Level of Service	E	B		E	B			C	C		C	C
Approach Delay (s)		19.1			19.8			34.0			30.7	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	20.8	HCM Level of Service	C
HCM Volume to Capacity ratio	~~0.86~~ 0.77		
Actuated Cycle Length (s)	80.7	Sum of lost time (s)	~~24.0~~ 18.0
Intersection Capacity Utilization	74.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	318	955	31	27	1254	27	35	9	52	10	10	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.98	1.00
Satd. Flow (prot)	1770	1854		1770	3528			1791	1583		1817	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.75	1.00		0.82	1.00
Satd. Flow (perm)	1770	1854		1770	3528			1403	1583		1524	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	335	1005	33	28	1320	28	37	9	55	11	11	148
RTOR Reduction (vph)	0	1	0	0	2	0	0	0	51	0	0	12
Lane Group Flow (vph)	335	1037	0	28	1346	0	0	46	4	0	22	136
Turn Type	Prot			Prot			Perm		Perm	Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8		8	4		4
Actuated Green, G (s)	17.8	52.5		1.7	36.4			6.2	6.2		6.2	24.0
Effective Green, g (s)	17.8	52.5		1.7	36.4			6.2	6.2		6.2	24.0
Actuated g/C Ratio	0.23	0.67		0.02	0.46			0.08	0.08		0.08	0.31
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	2.4	2.5		2.6	2.5			1.6	1.6		1.6	2.4
Lane Grp Cap (vph)	402	1242		38	1638			111	125		121	606
v/s Ratio Prot	c0.19	c0.56		0.02	0.38							0.05
v/s Ratio Perm								c0.03	0.00		0.01	0.03
v/c Ratio	0.83	0.83		0.74	0.82			0.41	0.03		0.18	0.22
Uniform Delay, d1	28.9	9.7		38.1	18.2			34.4	33.3		33.7	20.3
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	13.5	4.9		51.3	3.4			0.9	0.0		0.3	0.1
Delay (s)	42.4	14.6		89.5	21.6			35.3	33.4		34.0	20.4
Level of Service	D	B		F	C			D	C		C	C
Approach Delay (s)		21.4			23.0			34.2			22.2	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	22.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	78.4	Sum of lost time (s)	18.0
Intersection Capacity Utilization	80.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Kittelson & Associates, Inc. - Project #9700

Year 2028 Background Traffic Conditions, Weekday PM Peak Hour

Scenario Report

Scenario:	pm
Command:	Default Command
Volume:	pm
Geometry:	pm
Impact Fee:	Default Impact Fee
Trip Generation:	Nyberg Lodge pm
Trip Distribution:	Nyberg Lodge Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Kittelson & Associates, Inc. - Project #9700

Year 2028 Background Traffic Conditions, Weekday PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 5 SW 57th Ave / SW Nyberg Ln	B	10.8	0.000	B	10.8	0.000	+ 0.000 D/V
# 6 SW 65th Ave / SW Borland Rd	D	44.3	0.973	D	44.6	0.978	+ 0.361 D/V
# 7 SW 57th Ave / SW Borland Rd	B	14.2	0.000	C	16.8	0.000	+ 2.592 D/V
# 8 SW 50th Ave/SW Wilke Rd / SW B	C	16.8	0.000	C	22.3	0.000	+ 5.514 D/V

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Kittelson & Associates, Inc. - Project #9700

Year 2028 Background Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 SW 57th Ave / SW Nyberg Ln

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: B[10.8]

Street Name:	SW 57th Ave									SW Nyberg Ln					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R			
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0 1!	0 0	0	0 0 0	0 0	0	0 0 0	1 0	0	1 0	0 0			
Volume Module: >> Count Date: 23 Oct 2008 << 4:35 PM to 5:35 PM															
Base Vol:	60	0	2	0	0	0	0	113	76	2	74	0			
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15			
Initial Bse:	69	0	2	0	0	0	0	130	88	2	85	0			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	69	0	2	0	0	0	0	130	88	2	85	0			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
PHF Volume:	73	0	2	0	0	0	0	137	92	2	90	0			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
FinalVolume:	73	0	2	0	0	0	0	137	92	2	90	0			
Critical Gap Module:															
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx			
Capacity Module:															
Cnflict Vol:	290	288	184	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	230	xxxx	xxxxx			
Potent Cap.:	701	622	858	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1332	xxxx	xxxxx			
Move Cap.:	693	616	858	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1331	xxxx	xxxxx			
Volume/Cap:	0.10	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx			
Level Of Service Module:															
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT			
Shared Cap.:	xxxx	697	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Shrd ConDel:	xxxxx	10.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx			
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*			
ApproachDel:		10.8			xxxxxx			xxxxxx			xxxxxx				
ApproachLOS:		B			*			*			*				

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2028 Background Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 SW 65th Ave / SW Borland Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.978
Loss Time (sec):	16 (Y+R=0.0 sec)	Average Delay (sec/veh):	44.6
Optimal Cycle:	159	Level Of Service:	D

Street Name:	SW 65th Ave						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0	0 1	0	0 1
Volume Module: >> Count Date: 23 Oct 2008 << 4:35 PM to 5:35 PM												
Base Vol:	2	315	267	323	396	4	29	5	2	235	1	233
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Initial Bse:	2	363	308	372	456	5	33	6	2	271	1	268
Added Vol:	0	0	1	0	0	0	0	0	0	6	0	87
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	363	309	372	456	5	33	6	2	277	1	355
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	2	382	325	392	480	5	35	6	2	291	1	374
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	382	325	392	480	5	35	6	2	291	1	374
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	382	325	392	480	5	35	6	2	291	1	374
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.91	0.91	0.92	0.97	0.97	0.93	0.93	0.93	0.93	0.93	0.83
Lanes:	1.00	0.54	0.46	1.00	0.99	0.01	0.80	0.14	0.06	0.99	0.01	1.00
Final Sat.:	1768	934	794	1752	1825	18	1430	247	99	1767	7	1583
Capacity Analysis Module:												
Vol/Sat:	0.00	0.41	0.41	0.22	0.26	0.26	0.02	0.02	0.02	0.16	0.16	0.24
Crit Moves:		****		****			****				****	
Green/Cycle:	0.42	0.42	0.42	0.69	0.64	0.64	0.03	0.03	0.03	0.17	0.17	0.40
Volume/Cap:	0.01	0.98	0.98	0.83	0.41	0.41	0.98	0.98	0.98	0.98	0.98	0.60
Delay/Veh:	16.8	56.7	56.7	39.3	8.9	8.9	174.9	175	174.9	87.3	87.3	25.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.8	56.7	56.7	39.3	8.9	8.9	174.9	175	174.9	87.3	87.3	25.4
LOS by Move:	B	E	E	D	A	A	F	F	F	F	F	C
HCM2kAvgQ:	0	28	28	11	7	7	3	3	3	14	14	10

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2028 Background Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 SW 57th Ave / SW Borland Rd

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: C(16.8)

Street Name:	SW 57th Ave						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	0 0	0	0 0	1! 0	0	1 0	1 0	0	0 0	0 1	0
Volume Module: >> Count Date: 23 Oct 2008 << 4:45 PM to 5:45 PM												
Base Vol:	0	0	0	9	0	40	41	545	0	0	343	26
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Initial Bse:	0	0	0	10	0	46	47	628	0	0	395	30
Added Vol:	0	0	0	0	0	0	0	222	0	0	44	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	10	0	46	47	850	0	0	439	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	11	0	49	50	895	0	0	462	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	11	0	49	50	895	0	0	462	32
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1472	1472	478	494	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	140	127	587	1070	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	135	121	587	1070	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.08	0.00	0.08	0.05	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	363	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	16.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			16.8			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2028 Background Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 SW 50th Ave/SW Wilke Rd / SW Borland Rd

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: C[22.3]

Street Name:	SW 50th Ave/SW Wilke Rd									SW Borland Rd								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	1	0	0	0	0	0	1	0
Volume Module: >> Count Date: 23 Oct 2008 << 4:45 PM to 5:45 PM																				
Base Vol:	0	0	0			29	0	31			42	466	0			0	311	45		
Growth Adj:	1.15	1.15	1.15			1.15	1.15	1.15			1.15	1.15	1.15			1.15	1.15	1.15		
Initial Bse:	0	0	0			33	0	36			48	537	0			0	358	52		
Added Vol:	0	0	0			0	0	0			0	222	0			0	44	0		
PasserByVol:	0	0	0			0	0	0			0	0	0			0	0	0		
Initial Fut:	0	0	0			33	0	36			48	759	0			0	402	52		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95		
PHF Volume:	0	0	0			35	0	38			51	799	0			0	423	55		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
FinalVolume:	0	0	0			35	0	38			51	799	0			0	423	55		
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			6.4	xxxx	6.2			4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	xxxx	3.3			2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			1351	xxxx	459			478	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Potent Cap.:	xxxx	xxxx	xxxxx			165	xxxx	600			1084	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Move Cap.:	xxxx	xxxx	xxxxx			159	xxxx	596			1084	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Volume/Cap:	xxxx	xxxx	xxxx			0.22	xxxx	0.06			0.05	xxxx	xxxx		xxxx	xxxx	xxxx			
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx			0.8	xxxx	0.2			0.1	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx			34.0	xxxx	11.4			8.5	xxxx	xxxxx		xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*			D	*	B			A	*	*		*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*	*			*	*	*			*	*	*			*	*	*		
ApproachDel:	xxxxxx					22.3					xxxxxx					xxxxxx				
ApproachLOS:	*					C					*					*				

Note: Queue reported is the number of cars per lane.

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Appendix K
Year 2028 Total Traffic
Level-of-Service
Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑					↰	↑	↱↱
Volume (vph)	0	1618	700	137	1325	0	0	0	0	674	0	1057
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4715	1380	1752	3343					1665	1665	2632
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4715	1380	1752	3343					1665	1665	2632
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1668	722	141	1366	0	0	0	0	695	0	1090
RTOR Reduction (vph)	0	0	362	0	0	0	0	0	0	0	0	300
Lane Group Flow (vph)	0	1668	360	141	1366	0	0	0	0	347	348	790
Heavy Vehicles (%)	2%	10%	17%	3%	8%	2%	2%	2%	2%	3%	2%	8%
Turn Type			Perm	Prot						Split		custom
Protected Phases		2		1	6					4	4	4 5
Permitted Phases			2									
Actuated Green, G (s)		59.8	59.8	13.7	63.3					34.5	34.5	48.7
Effective Green, g (s)		59.8	59.8	13.7	63.3					34.5	34.5	48.7
Actuated g/C Ratio		0.50	0.50	0.11	0.53					0.29	0.29	0.41
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	
Vehicle Extension (s)		5.0	5.0	5.0	4.0					3.0	3.0	
Lane Grp Cap (vph)		2350	688	200	1763					479	479	1068
v/s Ratio Prot		0.35		0.08	c0.41					0.21	0.21	c0.30
v/s Ratio Perm			0.26									
v/c Ratio		0.71	0.52	0.70	0.77					0.72	0.73	0.74
Uniform Delay, d1		23.4	20.4	51.2	22.7					38.5	38.5	30.3
Progression Factor		1.00	1.00	1.23	0.65					1.00	1.00	1.00
Incremental Delay, d2		1.8	2.8	11.5	2.9					5.4	5.4	2.7
Delay (s)		25.2	23.3	74.5	17.7					43.8	43.9	33.0
Level of Service		C	C	E	B					D	D	C
Approach Delay (s)		24.6			23.0			0.0			37.2	
Approach LOS		C			C			A			D	

Intersection Summary			
HCM Average Control Delay	28.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱↑		↑↑	↱	↰	↑	↱			
Volume (vph)	0	1100	1192	0	477	1003	985	7	251	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.5	4.0	4.0	4.0	4.0			
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00			
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85			
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)		3471	2561		3471	1568	1559	1565	1553			
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)		3471	2561		3471	1568	1559	1565	1553			
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	1146	1242	0	497	1045	1026	7	261	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	18	0	0	0
Lane Group Flow (vph)	0	1146	1242	0	497	1045	513	520	243	0	0	0
Heavy Vehicles (%)	2%	4%	11%	2%	4%	3%	10%	2%	4%	2%	2%	2%
Turn Type			Free			Free	Split		Perm			
Protected Phases		2			6		8	8				
Permitted Phases			Free			Free			8			
Actuated Green, G (s)		62.7	120.0		62.2	120.0	49.3	49.3	49.3			
Effective Green, g (s)		62.7	120.0		62.2	120.0	49.3	49.3	49.3			
Actuated g/C Ratio		0.52	1.00		0.52	1.00	0.41	0.41	0.41			
Clearance Time (s)		4.0			4.5		4.0	4.0	4.0			
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)		1814	2561		1799	1568	640	643	638			
v/s Ratio Prot		0.33			0.14		0.33	c0.33				
v/s Ratio Perm			0.49			c0.67			0.16			
v/c Ratio		0.63	0.48		0.28	0.67	0.80	0.81	0.38			
Uniform Delay, d1		20.4	0.0		16.2	0.0	31.1	31.2	24.7			
Progression Factor		0.89	1.00		1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2		1.2	0.5		0.4	2.3	7.2	7.4	0.4			
Delay (s)		19.4	0.5		16.6	2.3	38.2	38.6	25.1			
Level of Service		B	A		B	A	D	D	C			
Approach Delay (s)		9.5			6.9			35.7			0.0	
Approach LOS		A			A			D			A	

Intersection Summary			
HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	172	1155	24	23	1312	72	113	2	3	54	5	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	0.97	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.96	1.00
Satd. Flow (prot)	3433	3430		1570	3479			1663	1214		1781	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.68	1.00		0.66	1.00
Satd. Flow (perm)	3433	3430		1570	3479			1195	1214		1231	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	177	1191	25	24	1353	74	116	2	3	56	5	56
RTOR Reduction (vph)	0	1	0	0	4	0	0	0	3	0	0	47
Lane Group Flow (vph)	177	1215	0	24	1423	0	0	118	0	0	61	9
Heavy Vehicles (%)	2%	5%	2%	15%	3%	2%	9%	2%	33%	2%	2%	2%
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	5.2	40.1		1.8	36.7			10.8	10.8		10.8	10.8
Effective Green, g (s)	5.2	40.1		1.8	36.7			10.8	10.8		10.8	10.8
Actuated g/C Ratio	0.07	0.57		0.03	0.52			0.15	0.15		0.15	0.15
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	252	1945		40	1806			183	185		188	242
v/s Ratio Prot	c0.05	c0.35		0.02	c0.41							
v/s Ratio Perm								c0.10	0.00		0.05	0.01
v/c Ratio	0.70	0.62		0.60	0.79			0.64	0.00		0.32	0.04
Uniform Delay, d1	32.0	10.3		34.1	13.8			28.1	25.4		26.7	25.5
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	8.6	0.6		22.8	2.4			7.6	0.0		1.0	0.1
Delay (s)	40.6	10.9		56.9	16.2			35.7	25.4		27.7	25.6
Level of Service	D	B		E	B			D	C		C	C
Approach Delay (s)		14.7			16.9			35.5			26.7	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM Average Control Delay	17.0	HCM Level of Service	B
HCM Volume to Capacity ratio	~~0.86~~ 0.75		
Actuated Cycle Length (s)	70.7	Sum of lost time (s)	~~24.0~~ 18.0
Intersection Capacity Utilization	71.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	109	1008	24	16	927	7	37	5	44	15	5	327
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.96	1.00
Satd. Flow (prot)	1671	1836		1687	3468			1769	1429		1708	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.74	1.00		0.75	1.00
Satd. Flow (perm)	1671	1836		1687	3468			1360	1429		1332	1583
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	111	1029	24	16	946	7	38	5	45	15	5	334
RTOR Reduction (vph)	0	1	0	0	1	0	0	0	41	0	0	51
Lane Group Flow (vph)	111	1052	0	16	952	0	0	43	4	0	20	283
Heavy Vehicles (%)	8%	3%	10%	7%	4%	2%	3%	2%	13%	9%	2%	2%
Turn Type	Prot			Prot			Perm		Perm	Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8		8	4		4
Actuated Green, G (s)	12.1	46.5		0.7	35.1			5.9	5.9		5.9	18.0
Effective Green, g (s)	12.1	46.5		0.7	35.1			5.9	5.9		5.9	18.0
Actuated g/C Ratio	0.17	0.65		0.01	0.49			0.08	0.08		0.08	0.25
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	2.4	2.5		2.6	2.5			1.6	1.6		1.6	2.4
Lane Grp Cap (vph)	284	1201		17	1712			113	119		111	534
v/s Ratio Prot	0.07	c0.57		0.01	0.27							c0.09
v/s Ratio Perm								0.03	0.00		0.02	0.09
v/c Ratio	0.39	0.88		0.94	0.56			0.38	0.03		0.18	0.53
Uniform Delay, d1	26.2	10.0		35.2	12.6			30.9	30.0		30.3	22.9
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.6	7.4		188.5	0.3			0.8	0.0		0.3	0.7
Delay (s)	26.8	17.3		223.7	12.9			31.7	30.0		30.6	23.6
Level of Service	C	B		F	B			C	C		C	C
Approach Delay (s)		18.2			16.4			30.8			24.0	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	18.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	71.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Kittelson & Associates, Inc. - Project #9700

Year 2028 Total Traffic Conditions, Weekday AM Peak Hour

Scenario Report

Scenario:	am
Command:	Default Command
Volume:	am
Geometry:	am
Impact Fee:	Default Impact Fee
Trip Generation:	Nyberg Lodge am
Trip Distribution:	Nyberg Lodge Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Kittelson & Associates, Inc. - Project #9700

Year 2028 Total Traffic Conditions, Weekday AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 5 SW 57th Ave / SW Nyberg Ln	B	10.4	0.000	B	10.5	0.000	+ 0.084 D/V
# 6 SW 65th Ave / SW Borland Rd	D	37.5	0.920	D	38.6	0.927	+ 1.055 D/V
# 7 SW 57th Ave / SW Borland Rd	C	17.3	0.000	C	22.7	0.000	+ 5.395 D/V
# 8 SW 50th Ave/SW Wilke Rd / SW B	C	15.4	0.000	C	19.6	0.000	+ 4.209 D/V
# 9 Nyberg Lodge Access	A	0.0	0.000	B	11.2	0.000	+11.193 D/V

Kittelson & Associates, Inc. - Project #9700

Year 2028 Total Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 SW 57th Ave / SW Nyberg Ln

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: B(10.5)

Street Name:	SW 57th Ave									SW Nyberg Ln					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R			
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0 0	1! 0	0	0 0	0	0 0	0 0	0	1 0	0	1	0 0	0		
Volume Module: >> Count Date: 23 Oct 2008 << 7:10 AM to 8:10 AM															
Base Vol:	94	0	2	0	0	0	0	34	35	1	119	0			
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15			
Initial Bse:	108	0	2	0	0	0	0	39	40	1	137	0			
Added Vol:	2	0	0	0	0	0	0	2	1	0	5	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	110	0	2	0	0	0	0	41	41	1	142	0			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
PHF Volume:	116	0	2	0	0	0	0	43	43	1	150	0			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
FinalVolume:	116	0	2	0	0	0	0	43	43	1	150	0			
Critical Gap Module:															
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx			
Capacity Module:															
Cnflict Vol:	218	218	66	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	88	xxxx	xxxxx			
Potent Cap.:	770	680	998	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1508	xxxx	xxxxx			
Move Cap.:	769	679	997	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1507	xxxx	xxxxx			
Volume/Cap:	0.15	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx			
Level Of Service Module:															
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT			
Shared Cap.:	xxxx	773	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Shrd ConDel:	xxxxx	10.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx			
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*			
ApproachDel:		10.5			xxxxxx			xxxxxx			xxxxxx				
ApproachLOS:		B			*			*			*				

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2028 Total Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 SW 65th Ave / SW Borland Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.927
Loss Time (sec):	16 (Y+R=0.0 sec)	Average Delay (sec/veh):	38.6
Optimal Cycle:	129	Level Of Service:	D

Street Name:	SW 65th Ave						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0 1	0	1	0 0 1	0	0	1! 0	0	0 1	0 0 1
Volume Module: >> Count Date: 23 Oct 2008 << 7:35 AM to 8:35 AM												
Base Vol:	2	452	180	222	228	32	5	2	2	246	10	297
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Initial Bse:	2	521	207	256	263	37	6	2	2	283	12	342
Added Vol:	0	5	5	0	2	0	0	0	0	1	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	526	212	256	265	37	6	2	2	284	12	352
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	2	548	221	266	276	38	6	2	2	296	12	367
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	548	221	266	276	38	6	2	2	296	12	367
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	548	221	266	276	38	6	2	2	296	12	367
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.91	0.92	0.92	0.90	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.82
Lanes:	1.00	0.71	0.29	1.00	0.88	0.12	0.56	0.22	0.22	0.96	0.04	1.00
Final Sat.:	1735	1246	503	1702	1544	215	975	390	390	1676	68	1554
Capacity Analysis Module:												
Vol/Sat:	0.00	0.44	0.44	0.16	0.18	0.18	0.01	0.01	0.01	0.18	0.18	0.24
Crit Moves:		****		****			****				****	
Green/Cycle:	0.48	0.47	0.47	0.68	0.64	0.64	0.01	0.01	0.01	0.19	0.19	0.36
Volume/Cap:	0.00	0.93	0.93	0.73	0.28	0.28	0.93	0.93	0.93	0.93	0.93	0.66
Delay/Veh:	13.6	41.0	41.0	32.9	8.1	8.1	272.7	273	272.7	71.0	71.0	29.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.6	41.0	41.0	32.9	8.1	8.1	272.7	273	272.7	71.0	71.0	29.7
LOS by Move:	B	D	D	C	A	A	F	F	F	E	E	C
HCM2kAvgQ:	0	27	27	7	4	4	1	1	1	13	13	10

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2028 Total Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 SW 57th Ave / SW Borland Rd

Average Delay (sec/veh):	1.9	Worst Case Level Of Service:	C[22.7]

Street Name:	SW 57th Ave									SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0 0	0 0	0	0 1!	0 0	1	0 1	0 0	0	0 0	0 1	0		
Volume Module: >> Count Date: 23 Oct 2008 << 7:35 AM to 8:35 AM															
Base Vol:	0	0	0	12	0	70	32	322	0	0	528	10			
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15			
Initial Bse:	0	0	0	14	0	81	37	371	0	0	608	12			
Added Vol:	0	0	0	1	0	0	0	26	0	0	166	2			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	0	0	0	15	0	81	37	397	0	0	774	14			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
PHF Volume:	0	0	0	16	0	85	39	418	0	0	815	14			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
FinalVolume:	0	0	0	16	0	85	39	418	0	0	815	14			
Critical Gap Module:															
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.6	6.3	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Capacity Module:															
Cnflict Vol:	xxxx	xxxx	xxxxx	1320	1321	836	831	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Potent Cap.:	xxxx	xxxx	xxxxx	171	155	363	776	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Move Cap.:	xxxx	xxxx	xxxxx	164	146	358	774	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Volume/Cap:	xxxx	xxxx	xxxx	0.10	0.00	0.24	0.05	xxxx	xxxx	xxxx	xxxx	xxxx			
Level Of Service Module:															
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*			
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT			
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	303	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	1.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	22.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx			22.7			xxxxxx			xxxxxx					
ApproachLOS:	*			C			*			*					

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2028 Total Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 SW 50th Ave/SW Wilke Rd / SW Borland Rd

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: C[19.6]

Street Name:	SW 50th Ave/SW Wilke Rd									SW Borland Rd								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	1	0	0	0	0	0	1	0
Volume Module: >> Count Date: 23 Oct 2008 << 7:35 AM to 8:35 AM																				
Base Vol:	0	0	0	44	0	44	19	246	0		0	416	14							
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15		1.15	1.15	1.15							
Initial Bse:	0	0	0	51	0	51	22	283	0		0	479	16							
Added Vol:	0	0	0	2	0	0	0	27	0		0	168	5							
PasserByVol:	0	0	0	0	0	0	0	0	0		0	0	0							
Initial Fut:	0	0	0	53	0	51	22	310	0		0	647	21							
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00							
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95	0.95							
PHF Volume:	0	0	0	55	0	53	23	327	0		0	681	22							
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0							
FinalVolume:	0	0	0	55	0	53	23	327	0		0	681	22							
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.3	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx	1065	xxxx	692	704	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Potent Cap.:	xxxx	xxxx	xxxxx	243	xxxx	439	880	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Move Cap.:	xxxx	xxxx	xxxxx	238	xxxx	439	880	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Volume/Cap:	xxxx	xxxx	xxxx	0.23	xxxx	0.12	0.03	xxxx	xxxx	xxxx	xxxx	xxxx								
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	0.9	xxxx	0.4	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Control Del:	xxxxx	xxxx	xxxxx	24.6	xxxx	14.3	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
LOS by Move:	*	*	*	C	*	B	A	*	*	*	*	*								
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT										
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*								
ApproachDel:	xxxxxx			19.6			xxxxxx			xxxxxx										
ApproachLOS:	*			C			*			*										

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2028 Total Traffic Conditions, Weekday AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Nyberg Lodge Access

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[11.2]

Street Name:	Nyberg Lodge Access Dwy									SW Nyberg Ln.								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	1!	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
Volume Module:																				
Base Vol:	0	0	0	0	0	0	0	81	0		0	290	0							
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15		1.15	1.15	1.15							
Initial Bse:	0	0	0	0	0	0	0	93	0		0	334	0							
Added Vol:	12	0	3	0	0	0	0	0	28		7	0	0							
PasserByVol:	0	0	0	0	0	0	0	0	0		0	0	0							
Initial Fut:	12	0	3	0	0	0	0	93	28		7	334	0							
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00							
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95	0.95							
PHF Volume:	13	0	3	0	0	0	0	98	29		7	352	0							
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0							
FinalVolume:	13	0	3	0	0	0	0	98	29		7	352	0							
Critical Gap Module:																				
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx							
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx							
Capacity Module:																				
Cnflict Vol:	479	479	113	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		128	xxxx	xxxxx							
Potent Cap.:	549	489	945	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		1471	xxxx	xxxxx							
Move Cap.:	547	486	945	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		1471	xxxx	xxxxx							
Volume/Cap:	0.02	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		0.01	xxxx	xxxx							
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		0.0	xxxx	xxxxx							
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		7.5	xxxx	xxxxx							
LOS by Move:	*	*	*	*	*	*	*	*	*		A	*	*							
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT				LT - LTR - RT									
Shared Cap.:	xxxx	597	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx							
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		0.0	xxxx	xxxxx							
Shrd ConDel:	xxxxx	11.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		7.5	xxxx	xxxxx							
Shared LOS:	*	B	*	*	*	*	*	*	*		A	*	*							
ApproachDel:	11.2			xxxxxx			xxxxxx				xxxxxx									
ApproachLOS:	B			*			*				*									

Note: Queue reported is the number of cars per lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑					↰	↰	↱↱
Volume (vph)	0	1665	959	165	1126	0	0	0	0	938	2	1199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.91	1.00	1.00	0.95					0.95	0.95	0.88
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		4988	1538	1770	3438					1649	1653	2707
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		4988	1538	1770	3438					1649	1653	2707
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1716	989	170	1161	0	0	0	0	967	2	1236
RTOR Reduction (vph)	0	0	491	0	0	0	0	0	0	0	0	262
Lane Group Flow (vph)	0	1716	498	170	1161	0	0	0	0	483	486	974
Heavy Vehicles (%)	2%	4%	5%	2%	5%	2%	2%	2%	2%	4%	2%	5%
Turn Type			Perm	Prot						Split		custom
Protected Phases		2		1	6					4	4	4 5
Permitted Phases			2									
Actuated Green, G (s)		51.1	51.1	14.6	54.3					42.3	42.3	57.7
Effective Green, g (s)		51.1	51.1	14.6	54.3					42.3	42.3	57.7
Actuated g/C Ratio		0.43	0.43	0.12	0.45					0.35	0.35	0.48
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0	4.0	
Vehicle Extension (s)		5.0	5.0	5.0	4.0					3.0	3.0	
Lane Grp Cap (vph)		2124	655	215	1556					581	583	1302
v/s Ratio Prot		c0.34		0.10	c0.34					0.29	c0.29	c0.36
v/s Ratio Perm			0.32									
v/c Ratio		0.81	0.76	0.79	0.75					0.83	0.83	0.75
Uniform Delay, d1		30.2	29.3	51.2	27.2					35.6	35.6	25.3
Progression Factor		1.00	1.00	0.89	0.86					1.00	1.00	1.00
Incremental Delay, d2		3.4	8.1	18.5	3.0					9.8	9.9	2.4
Delay (s)		33.6	37.4	64.0	26.4					45.4	45.6	27.6
Level of Service		C	D	E	C					D	D	C
Approach Delay (s)		35.0			31.2			0.0			35.5	
Approach LOS		C			C			A			D	

Intersection Summary				
HCM Average Control Delay	34.4	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.81			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	104.6%	ICU Level of Service	G	
Analysis Period (min)	15			

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱↱		↑↑	↱	↰	↰↑	↱			
Volume (vph)	0	1410	1193	0	674	1000	617	6	205	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.5	4.0	4.0	4.0	4.0			
Lane Util. Factor		0.95	0.88		0.95	1.00	0.95	0.95	1.00			
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85			
Flt Protected		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)		3539	2682		3539	1583	1588	1595	1583			
Flt Permitted		1.00	1.00		1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)		3539	2682		3539	1583	1588	1595	1583			
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	1469	1243	0	702	1042	643	6	214	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	30	0	0	0
Lane Group Flow (vph)	0	1469	1243	0	702	1042	321	328	184	0	0	0
Heavy Vehicles (%)	2%	2%	6%	2%	2%	2%	8%	2%	2%	2%	2%	2%
Turn Type			Free			Free	Split		Perm			
Protected Phases		2			6		8	8				
Permitted Phases			Free			Free			8			
Actuated Green, G (s)		81.0	120.0		80.5	120.0	31.0	31.0	31.0			
Effective Green, g (s)		81.0	120.0		80.5	120.0	31.0	31.0	31.0			
Actuated g/C Ratio		0.68	1.00		0.67	1.00	0.26	0.26	0.26			
Clearance Time (s)		4.0			4.5		4.0	4.0	4.0			
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)		2389	2682		2374	1583	410	412	409			
v/s Ratio Prot		0.42			0.20		0.20	c0.21				
v/s Ratio Perm			0.46			c0.66			0.12			
v/c Ratio		0.61	0.46		0.30	0.66	0.78	0.80	0.45			
Uniform Delay, d1		10.8	0.0		8.1	0.0	41.4	41.5	37.4			
Progression Factor		0.75	1.00		1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2		0.7	0.3		0.3	2.2	9.4	10.2	0.8			
Delay (s)		8.8	0.3		8.4	2.2	50.8	51.8	38.1			
Level of Service		A	A		A	A	D	D	D			
Approach Delay (s)		4.9			4.7			48.0			0.0	
Approach LOS		A			A			D			A	

Intersection Summary			
HCM Average Control Delay	11.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	243	1278	101	23	1390	56	106	10	20	79	9	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	0.97	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.96	1.00
Satd. Flow (prot)	3433	3500		1787	3519			1782	1583		1782	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.68	1.00		0.66	1.00
Satd. Flow (perm)	3433	3500		1787	3519			1267	1583		1232	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	256	1345	106	24	1463	59	112	11	21	83	9	189
RTOR Reduction (vph)	0	5	0	0	3	0	0	0	18	0	0	109
Lane Group Flow (vph)	256	1446	0	24	1519	0	0	123	3	0	92	80
Heavy Vehicles (%)	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)	7.1	47.8		1.8	42.5			13.5	13.5		13.5	13.5
Effective Green, g (s)	7.1	47.8		1.8	42.5			13.5	13.5		13.5	13.5
Actuated g/C Ratio	0.09	0.59		0.02	0.52			0.17	0.17		0.17	0.17
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	301	2063		40	1844			211	264		205	264
v/s Ratio Prot	c0.07	c0.41		0.01	c0.43							
v/s Ratio Perm								c0.10	0.00		0.07	0.05
v/c Ratio	0.85	0.70		0.60	0.82			0.58	0.01		0.45	0.30
Uniform Delay, d1	36.5	11.6		39.3	16.2			31.2	28.2		30.4	29.7
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	19.9	1.1		22.8	3.1			4.1	0.0		1.6	0.6
Delay (s)	56.4	12.7		62.1	19.3			35.3	28.3		32.0	30.3
Level of Service	E	B		E	B			D	C		C	C
Approach Delay (s)		19.3			20.0			34.2			30.9	
Approach LOS		B			B			C			C	

Intersection Summary				
HCM Average Control Delay	21.0	HCM Level of Service	C	
HCM Volume to Capacity ratio	~~0.86~~ 0.77			
Actuated Cycle Length (s)	81.1	Sum of lost time (s)	~~24.0~~ 18.0	
Intersection Capacity Utilization	75.2%	ICU Level of Service	D	
Analysis Period (min)	15			

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	331	955	31	27	1254	24	35	9	52	12	10	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.97	1.00
Satd. Flow (prot)	1770	1854		1770	3529			1791	1583		1814	1583
Flt Permitted	0.95	1.00		0.95	1.00			0.75	1.00		0.81	1.00
Satd. Flow (perm)	1770	1854		1770	3529			1400	1583		1501	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	348	1005	33	28	1320	25	37	9	55	13	11	164
RTOR Reduction (vph)	0	1	0	0	2	0	0	0	51	0	0	12
Lane Group Flow (vph)	348	1037	0	28	1343	0	0	46	4	0	24	152
Turn Type	Prot			Prot			Perm		Perm	Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8		8	4		4
Actuated Green, G (s)	18.7	53.0		1.7	36.0			6.2	6.2		6.2	24.9
Effective Green, g (s)	18.7	53.0		1.7	36.0			6.2	6.2		6.2	24.9
Actuated g/C Ratio	0.24	0.67		0.02	0.46			0.08	0.08		0.08	0.32
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Vehicle Extension (s)	2.4	2.5		2.6	2.5			1.6	1.6		1.6	2.4
Lane Grp Cap (vph)	420	1245		38	1610			110	124		118	620
v/s Ratio Prot	c0.20	c0.56		0.02	0.38							0.06
v/s Ratio Perm								c0.03	0.00		0.02	0.04
v/c Ratio	0.83	0.83		0.74	0.83			0.42	0.03		0.20	0.25
Uniform Delay, d1	28.6	9.7		38.4	18.8			34.6	33.6		34.0	20.0
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	12.4	4.8		51.3	3.8			0.9	0.0		0.3	0.1
Delay (s)	40.9	14.5		89.7	22.7			35.6	33.6		34.3	20.2
Level of Service	D	B		F	C			D	C		C	C
Approach Delay (s)		21.1			24.0			34.5			22.0	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	22.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	78.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	80.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Kittelson & Associates, Inc. - Project #9700

Year 2028 Total Traffic Conditions, Weekday PM Peak Hour

Scenario Report

Scenario:	pm
Command:	Default Command
Volume:	pm
Geometry:	pm
Impact Fee:	Default Impact Fee
Trip Generation:	Nyberg Lodge pm
Trip Distribution:	Nyberg Lodge Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Kittelson & Associates, Inc. - Project #9700

Year 2028 Total Traffic Conditions, Weekday PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 5 SW 57th Ave / SW Nyberg Ln	B	10.8	0.000	B	11.0	0.000	+ 0.176 D/V
# 6 SW 65th Ave / SW Borland Rd	D	44.3	0.973	D	45.0	0.979	+ 0.770 D/V
# 7 SW 57th Ave / SW Borland Rd	B	14.2	0.000	B	14.8	0.000	+ 0.537 D/V
# 8 SW 50th Ave/SW Wilke Rd / SW B	C	16.8	0.000	C	17.8	0.000	+ 0.998 D/V
# 9 Nyberg Lodge Access	A	0.0	0.000	B	12.4	0.000	+12.393 D/V

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Kittelson & Associates, Inc. - Project #9700

Year 2028 Total Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 SW 57th Ave / SW Nyberg Ln

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: B[11.0]

Street Name:	SW 57th Ave									SW Nyberg Ln					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R			
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0 1!	0 0	0	0 0	0 0	0	0 0	1 0	0	1 0	0 0			
Volume Module: >> Count Date: 23 Oct 2008 << 4:35 PM to 5:35 PM															
Base Vol:	60	0	2	0	0	0	0	113	76	2	74	0			
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15			
Initial Bse:	69	0	2	0	0	0	0	130	88	2	85	0			
Added Vol:	3	0	0	0	0	0	0	6	2	0	9	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	72	0	2	0	0	0	0	136	90	2	94	0			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
PHF Volume:	76	0	2	0	0	0	0	143	94	2	99	0			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
FinalVolume:	76	0	2	0	0	0	0	143	94	2	99	0			
Critical Gap Module:															
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx			
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx			
Capacity Module:															
Cnflict Vol:	307	305	191	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	239	xxxx	xxxxx			
Potent Cap.:	686	609	850	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1322	xxxx	xxxxx			
Move Cap.:	678	603	849	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1321	xxxx	xxxxx			
Volume/Cap:	0.11	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx			
Level Of Service Module:															
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT			
Shared Cap.:	xxxx	682	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Shrd ConDel:	xxxxx	11.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx			
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*			
ApproachDel:		11.0			xxxxxx			xxxxxx			xxxxxx				
ApproachLOS:		B			*			*			*				

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2028 Total Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 SW 65th Ave / SW Borland Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.979
Loss Time (sec):	16 (Y+R=0.0 sec)	Average Delay (sec/veh):	45.0
Optimal Cycle:	160	Level Of Service:	D

Street Name:	SW 65th Ave						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0 1	0	1	0 0 1	0	0	1! 0	0	0 1	0 0 1
Volume Module: >> Count Date: 23 Oct 2008 << 4:35 PM to 5:35 PM												
Base Vol:	2	315	267	323	396	4	29	5	2	235	1	233
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Initial Bse:	2	363	308	372	456	5	33	6	2	271	1	268
Added Vol:	0	9	0	0	6	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	372	308	372	462	5	33	6	2	271	1	268
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	2	391	324	392	487	5	35	6	2	285	1	283
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	391	324	392	487	5	35	6	2	285	1	283
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	391	324	392	487	5	35	6	2	285	1	283
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.91	0.91	0.92	0.97	0.97	0.93	0.93	0.93	0.93	0.93	0.83
Lanes:	1.00	0.55	0.45	1.00	0.99	0.01	0.80	0.14	0.06	0.99	0.01	1.00
Final Sat.:	1768	947	783	1752	1825	18	1430	247	99	1767	8	1583
Capacity Analysis Module:												
Vol/Sat:	0.00	0.41	0.41	0.22	0.27	0.27	0.02	0.02	0.02	0.16	0.16	0.18
Crit Moves:		****		****			****			****		
Green/Cycle:	0.43	0.42	0.42	0.69	0.65	0.65	0.03	0.03	0.03	0.16	0.16	0.39
Volume/Cap:	0.01	0.98	0.98	0.83	0.41	0.41	0.98	0.98	0.98	0.98	0.98	0.45
Delay/Veh:	16.6	56.6	56.6	39.5	8.7	8.7	175.3	175	175.3	88.4	88.4	23.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.6	56.6	56.6	39.5	8.7	8.7	175.3	175	175.3	88.4	88.4	23.0
LOS by Move:	B	E	E	D	A	A	F	F	F	F	F	C
HCM2kAvgQ:	0	28	28	11	7	7	3	3	3	14	14	7

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2028 Total Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 SW 57th Ave / SW Borland Rd

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B(14.8)

Street Name:	SW 57th Ave						SW Borland Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0 0 0	0	0	1! 0 0	1	0	1 0 0	0	0	0 1 0
Volume Module: >> Count Date: 23 Oct 2008 << 4:45 PM to 5:45 PM												
Base Vol:	0	0	0	9	0	40	41	545	0	0	343	26
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Initial Bse:	0	0	0	10	0	46	47	628	0	0	395	30
Added Vol:	0	0	0	2	0	0	0	0	0	0	0	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	12	0	46	47	628	0	0	395	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	13	0	49	50	661	0	0	416	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	13	0	49	50	661	0	0	416	35
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1194	1194	433	451	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	206	187	623	1110	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	199	178	623	1110	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.07	0.00	0.08	0.04	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	429	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	14.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			14.8			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2028 Total Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 SW 50th Ave/SW Wilke Rd / SW Borland Rd

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: C[17.8]

Street Name:	SW 50th Ave/SW Wilke Rd								SW Borland Rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	0	0 0	1	0	0	0 1	1	0	1	0 0	0	0	0	1 0
Volume Module: >> Count Date: 23 Oct 2008 << 4:45 PM to 5:45 PM																
Base Vol:	0	0	0		29	0	31		42	466	0		0	311		45
Growth Adj:	1.15	1.15	1.15		1.15	1.15	1.15		1.15	1.15	1.15		1.15	1.15		1.15
Initial Bse:	0	0	0		33	0	36		48	537	0		0	358		52
Added Vol:	0	0	0		6	0	0		0	2	0		0	3		9
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0		0
Initial Fut:	0	0	0		39	0	36		48	539	0		0	361		61
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95		0.95
PHF Volume:	0	0	0		41	0	38		51	567	0		0	380		64
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0		0
FinalVolume:	0	0	0		41	0	38		51	567	0		0	380		64
Critical Gap Module:																
Critical Gp:	xxxxx	xxxx	xxxxx		6.4	xxxx	6.2		4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
FollowUpTim:	xxxxx	xxxx	xxxxx		3.5	xxxx	3.3		2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
Capacity Module:																
Cnflict Vol:	xxxx	xxxx	xxxxx		1081	xxxx	420		444	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Potent Cap.:	xxxx	xxxx	xxxxx		240	xxxx	631		1116	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Move Cap.:	xxxx	xxxx	xxxxx		232	xxxx	627		1116	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Volume/Cap:	xxxx	xxxx	xxxx		0.18	xxxx	0.06		0.05	xxxx	xxxx		xxxx	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	xxxx	xxxx	xxxxx		0.6	xxxx	0.2		0.1	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx		23.9	xxxx	11.1		8.4	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
LOS by Move:	*	*	*		C	*	B		A	*	*		*	*	*	
Movement:	LT - LTR - RT				LT - LTR - RT				LT - LTR - RT				LT - LTR - RT			
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*		*	*	*		*	*	*		*	*	*	
ApproachDel:	xxxxxx				17.8				xxxxxx				xxxxxx			
ApproachLOS:	*				C				*				*			

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #9700

Year 2028 Total Traffic Conditions, Weekday PM Peak Hour

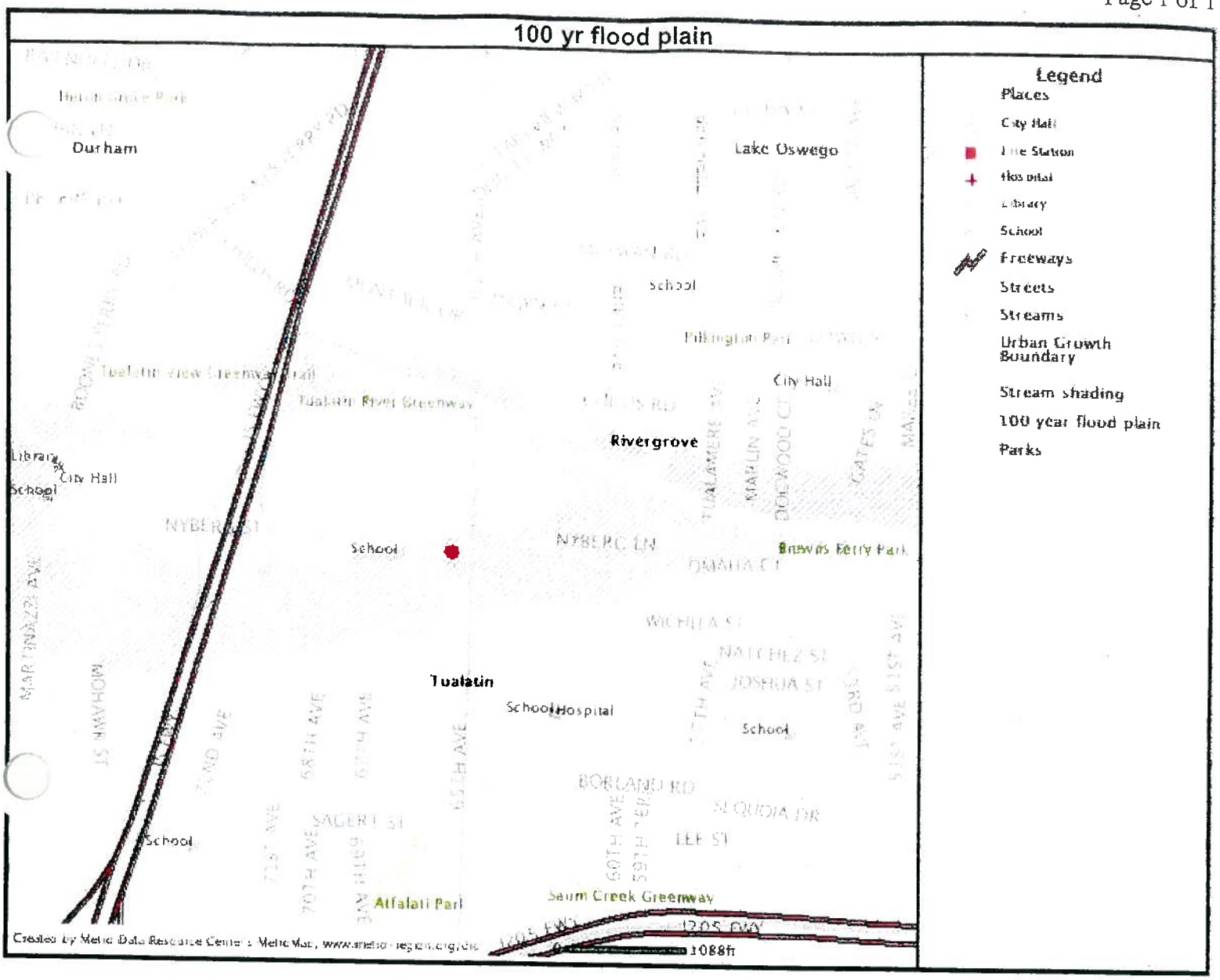
Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

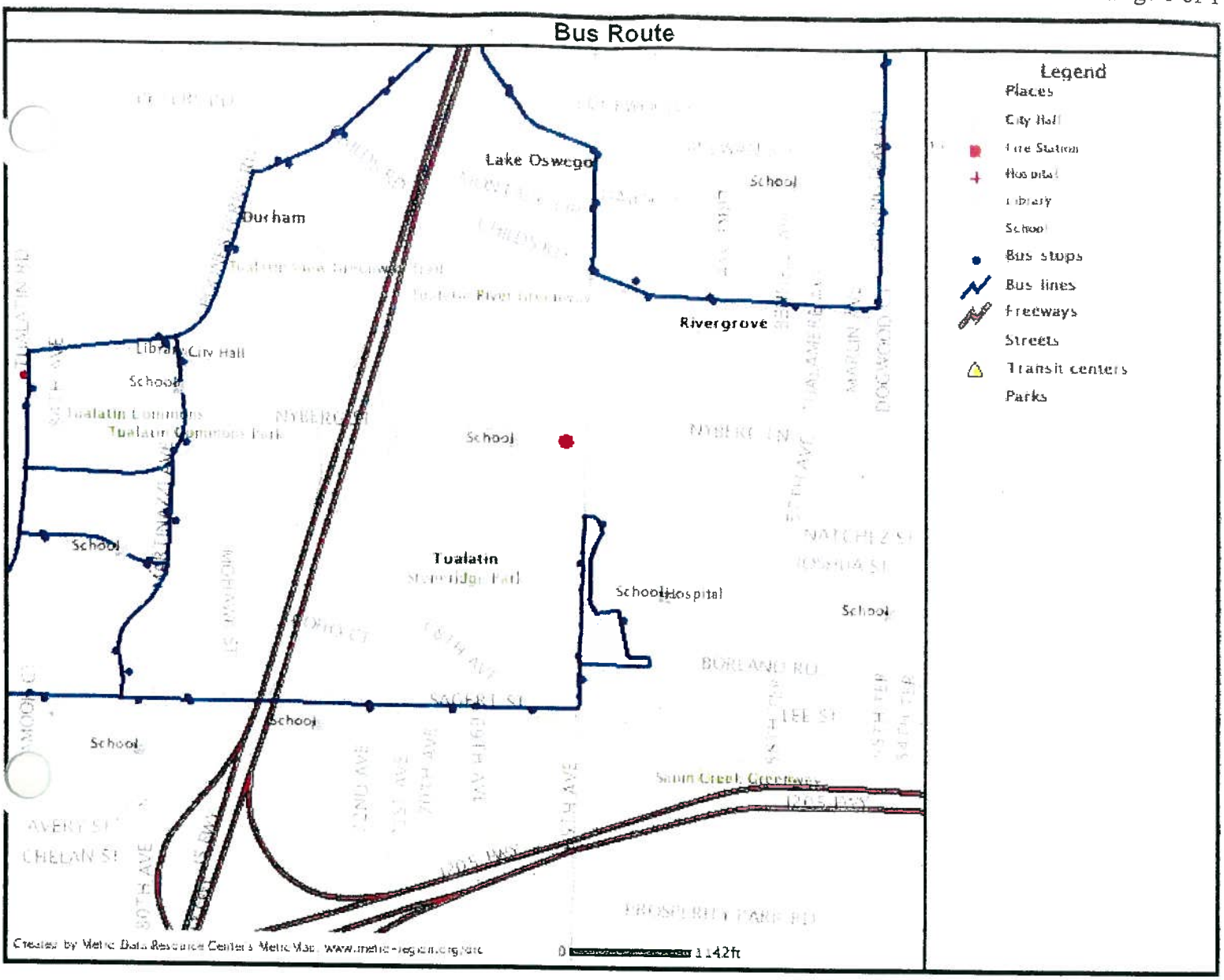
Intersection #9 Nyberg Lodge Access

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[12.4]

Street Name:	Nyberg Lodge Access Dwy								SW Nyberg Ln.							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	1!	0 0	0	0	0	0 0	0	0	0	1 0	0	1	0	0 0
Volume Module:																
Base Vol:	0	0	0		0	0	0		0	275	0		0	125		0
Growth Adj:	1.15	1.15	1.15		1.15	1.15	1.15		1.15	1.15	1.15		1.15	1.15		1.15
Initial Bse:	0	0	0		0	0	0		0	317	0		0	144		0
Added Vol:	34	0	9		0	0	0		0	0	46		12	0		0
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0		0
Initial Fut:	34	0	9		0	0	0		0	317	46		12	144		0
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95		0.95
PHF Volume:	36	0	9		0	0	0		0	333	48		13	152		0
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0		0
FinalVolume:	36	0	9		0	0	0		0	333	48		13	152		0
Critical Gap Module:																
Critical Gp:	6.4	6.5	6.2		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	4.0	3.3		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	535	535	358		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		382	xxxx	xxxxx	
Potent Cap.:	506	452	687		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		1177	xxxx	xxxxx	
Move Cap.:	502	447	687		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		1177	xxxx	xxxxx	
Volume/Cap:	0.07	0.00	0.01		xxxx	xxxx	xxxx		xxxx	xxxx	xxxx		0.01	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		0.0	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		8.1	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		*	*	*		A	*	*	
Movement:	LT - LTR - RT				LT - LTR - RT				LT - LTR - RT				LT - LTR - RT			
Shared Cap.:	xxxx	532	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	0.3	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.0	xxxx	xxxxx	
Shrd ConDel:	xxxxx	12.4	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		8.1	xxxx	xxxxx	
Shared LOS:	*	B	*		*	*	*		*	*	*		A	*	*	
ApproachDel:	12.4				xxxxxx				xxxxxx				xxxxxx			
ApproachLOS:	B				*				*				*			

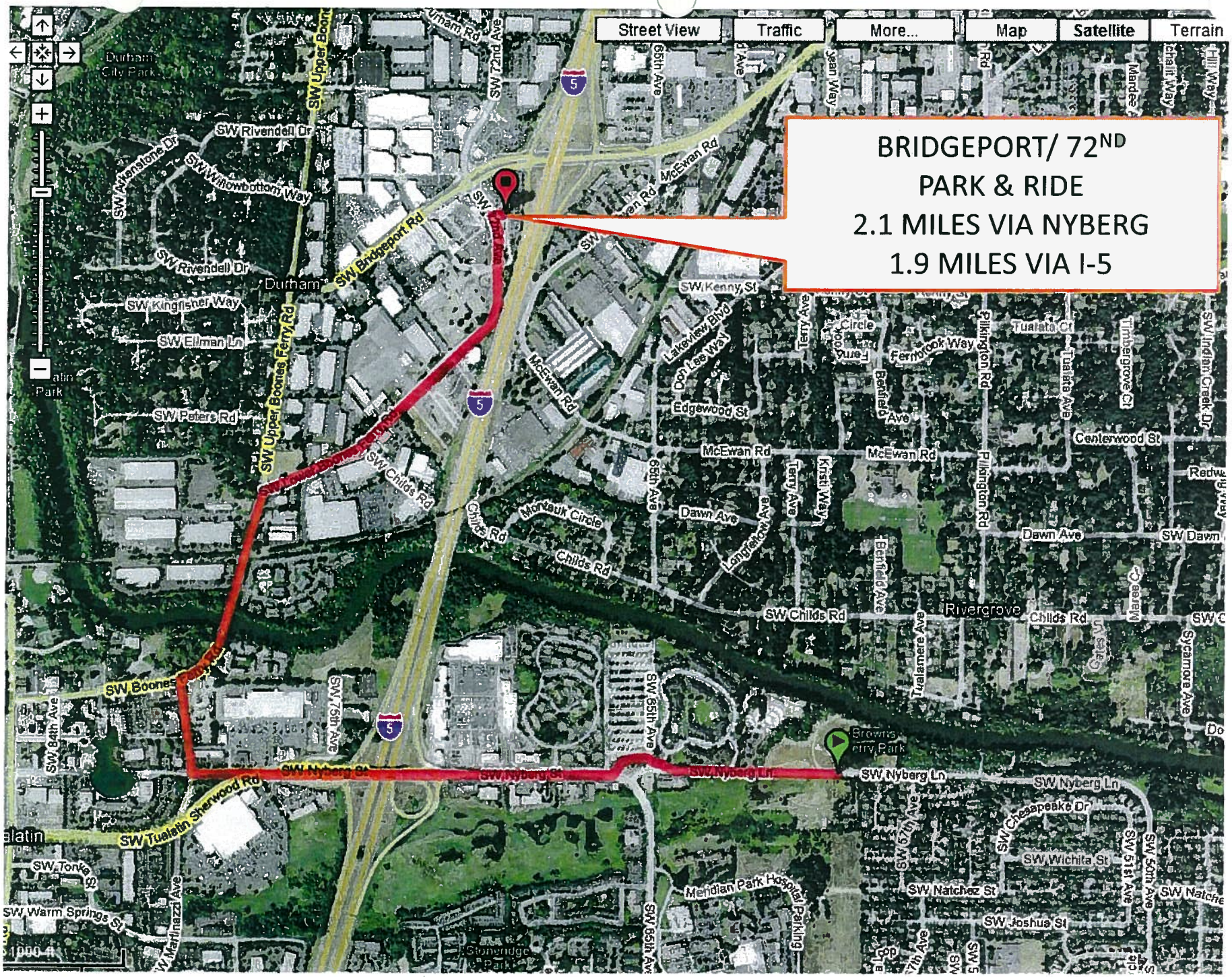
Note: Queue reported is the number of cars per lane.

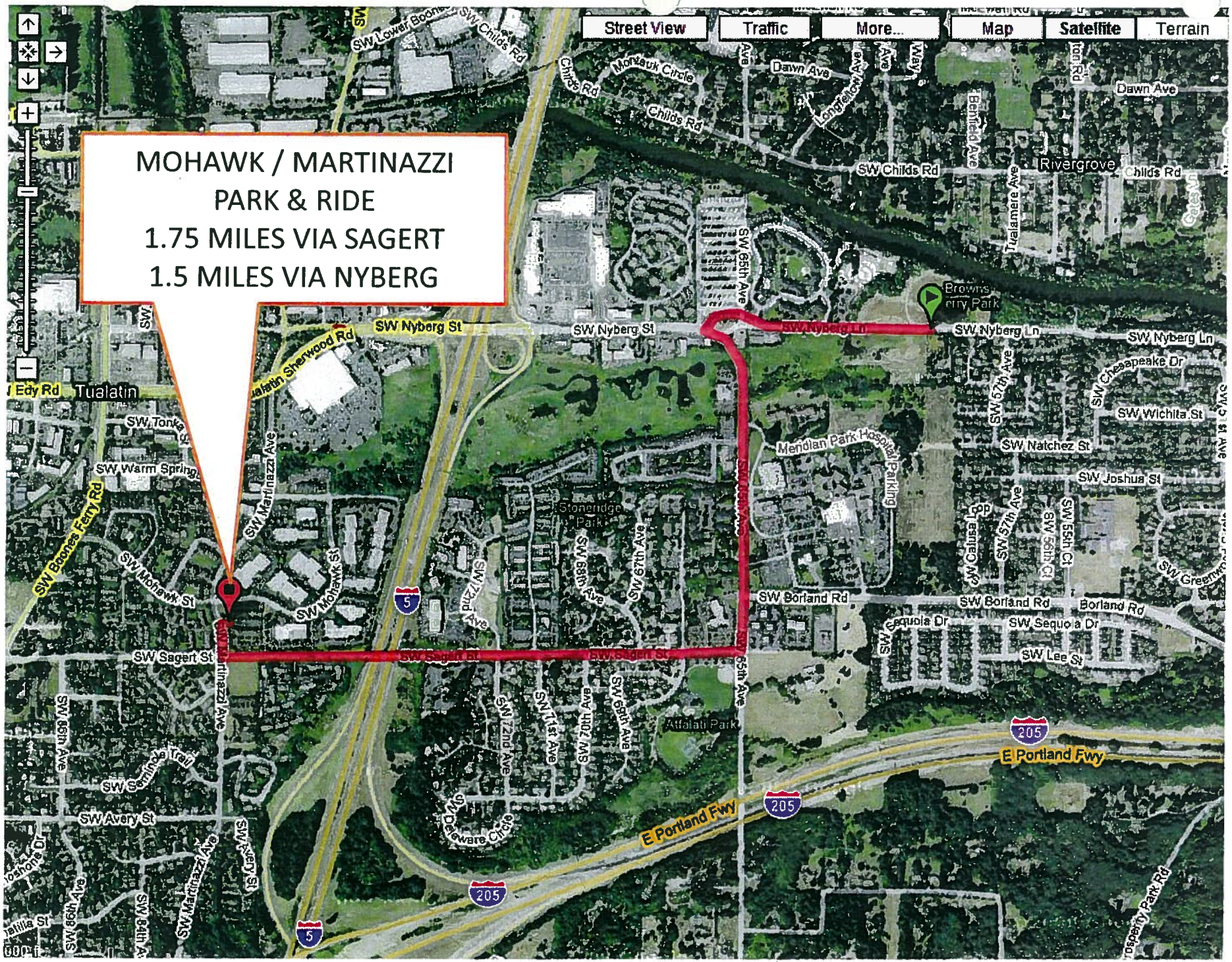

100 yr flood plain
Legend
Places
City Hall
Fire Station
Hospital
Library
School
Freeways
Streets
Streams
Urban Growth Boundary
Stream shading
100 year flood plain
Parks
Durham
Lake Oswego
School
City Hall
Tualatin River Greenway
Rivergrove
Library
City Hall
School
School
Brown's Ferry Park
Tualatin
School
Hospital
School
School
Atfalati Park
Saum Creek Greenway
1088ft
Created by Metro Data Resource Center's MetroMap, www.metro-region.org/drc



Attachment D
Section 11 – Alternate Transportation Map (Bus Route, Stop, Park & Ride, Walking)

Street View
Traffic
More...
Map
Satellite
Terrain
Browns Ferry Park
SW 65th Ave
SW Nyberg Ln
6601
6000
5800
19201
SW Nyberg Ln
SW 65th Ave
SW Nyberg Ln
SW 65th Ave
Meridian Park Hospital Parking
Meridian Park Hospital Parking
SW Matchez St
SW 57th Ave
5700
SW Joshua St
SW Nyberg Ln
SW 65TH / MERIDIAN PARK ROAD
BUS STOP – ROUTE 76
2000 FEET (1/3 MILE) VIA PARK PATHS


BRIDGEPORT/ 72ND
PARK & RIDE
2.1 MILES VIA NYBERG
1.9 MILES VIA I-5
Street View
Traffic
More...
Map
Satellite
Terrain
SW Nyberg St
SW Nyberg Ln
SW Boones Ferry Rd
SW Tualatin Sherwood Rd
SW Childs Rd
SW Bridgeport Rd
McEwan Rd
Dawn Ave
SW Kenny St
Edgewood St
Centerwood St
Rivergrove
Durham
Durham City Park
Meridian Park Hospital Parking
Browns Ferry Park
Stonegate Park


MOHAWK / MARTINAZZI
PARK & RIDE
1.75 MILES VIA SAGERT
1.5 MILES VIA NYBERG
Street View
Traffic
More...
Map
Satellite
Terrain
SW Childs Rd
Rivergrove
Dawn Ave
SW Nyberg St
SW Nyberg Ln
Browns Ferry Park
Tualatin
SW Boones Ferry Rd
SW Martinazzi Ave
SW Mohawk St
SW Sagert St
SW Borland Rd
Meridian Park Hospital Parking
Stonebridge Park
Atfalati Park
E Portland Fwy
SW Avery St
SW Sequoia Dr
SW Lee St
SW Natchez St
SW Joshua St
SW Wichita St
SW Cheasapeake Dr
SW Greenway
5
205

WALK TO HOSPITAL CAMPUS FROM PROPOSED BUILDING IS LESS THAN 1500 FEET, ASSUMING TRAILS ARE CONSTRUCTED
Street View
Traffic
More...
Map
Satellite
Terrain
SW Nyberg Ln
SW Nyberg
5800
SW 57th Ave
SW Mobile Pl
SW 56th Pl
SW Wichita St
5700
SW Natchez St
SW Joshua St
SW 65th Ave
19264
Meridian Park Hospital Parking
Legacy Meridian Park Hospital
SW Calusa Loop
SW Powl
200 ft

Disposition and Development Agreement

In preparation for submission of this application, the Applicant participated in a pre-application meeting and subsequently conferred on a number of occasions with Planning Staff.

In the course of these communications the advisability of a Disposition and Development Agreement ("DDA") was discussed. The DDA could address among other things, the following issues:

1. The manner of transfer of the land to expand Brown's Ferry Park
2. Consideration for such transfer of land
3. Improvements or enhancements to the expanded park area

It appears to be in the common interest of the City and the Applicant to identify, resolve and document certain key issues and related agreements so that all concerned may have a clearer understanding. This, of course, is not intended to supplant the necessary processes attendant to the conditional use permit or the Architectural Review Board, but is meant to supplement this application to promote clear understandings and expectations.

Proposed "Community" Features

As referenced previously in this application, this proposal provides for the potential of a Brown's Ferry Park expansion. It is envisioned that such expansion would include substantial public amenities such as:

1. Enhanced Wetlands
2. Improved Waterfowl Habitat
3. Development of Walking Trails
4. Picnic Benches
5. Educational Kiosks
6. Viewing Blinds
7. Connectivity to Legacy Meridian Park Hospital via Pedestrian Trails

Partnership with Local Public Schools

The Applicant is committed to the support of public education and sees the opportunity to enhance science and environmental education of students by promoting accessibility to and programs involving the expansion of Brown's Ferry Park.

The Applicant intends to collaborate with and support the Tigard-Tualatin School District West Linn – Wilsonville School District and the Lake Oswego School District to establish outdoor learning programs for students, and to help facilitate those programs via partnerships with the Wetlands Conservancy and the Audubon Society of Portland.

Additionally, the proposed facility will offer employment and externship opportunities for high school students, particularly during the summer season.

Partnership with Wetlands Conservancy

The Applicant has met and conferred with Esther Lev, Director of the Wetlands Conservancy, and established a good working relationship to begin development of a concept plan for the enhancement of the wetlands on the park expansion property.

The Wetlands Conservancy is interested in becoming a participant in expansion plans for Brown's Ferry Park and the Applicant encourages their involvement.

Attachment D
Section 15 – Partnership with Wetlands Conservancy

Partnership with Audubon Society of Portland

The Audubon Society of Portland is one of the most active chapters of the Audubon Society in the nation. The Applicant has engaged the Audubon Society of Portland in preliminary discussions concerning the improvement of the wildlife habitat in connection with the park expansion, and the Audubon Society of Portland has expressed sincere interest in becoming involved in the project.

Attachment D
Section 16 – Partnership with
Audubon Society of Portland

Partnership with Legacy Meridian Park Hospital

The Applicant has established a positive working relationship with the management of Legacy Meridian Park Hospital in relation to this project. As a result, the respective organizations have been conferring on ways to collaborate on the planning of the park expansion, connectivity and related issues.

Legacy Meridian Park, like many hospitals, has embraced the concept of "wellness" which combines not only treatment, but also prevention of disease and disorders through healthy lifestyle choices. A major component of that is physical activity and recreation. The expanded Brown's Ferry Park creates an excellent opportunity to create a connected system of paths between the hospital campus and the Tualatin River Greenway. This would help divert the public from hospital common areas (roads and parking lots) into a safer and more appropriate exercise venue.

In addition, the proximity of the Club to the hospital means that many employees could easily include tennis, swimming, or other fitness programs into their daily routine, before and after work, or even during breaks. The tennis facility also presents a complimentary neighboring use for the future expansion of the medical center.

Participation with Tualatin Chamber of Commerce

The Applicant understands the importance and value of community involvement, and intends to become a contributing member of the Tualatin Chamber of Commerce.

The Applicant appreciates that support of organizations such as the Chamber of Commerce not only promotes the community, but creates opportunities to establish long-term relationships that are personally fulfilling and enjoyable.

As stated in our "Requirements" section, a high-quality tennis facility will act as a regional attractor for tennis players throughout the Metro region. Because league play and tournaments are an integral part of a successful tennis program, the facility will bring visitors to Tualatin who may have had no other reason to visit, and these people will naturally shop, eat, and stay at nearby establishments. Thus, we feel that Stafford Hills will not only be a successful enterprise on its own account, but will also help other area businesses.

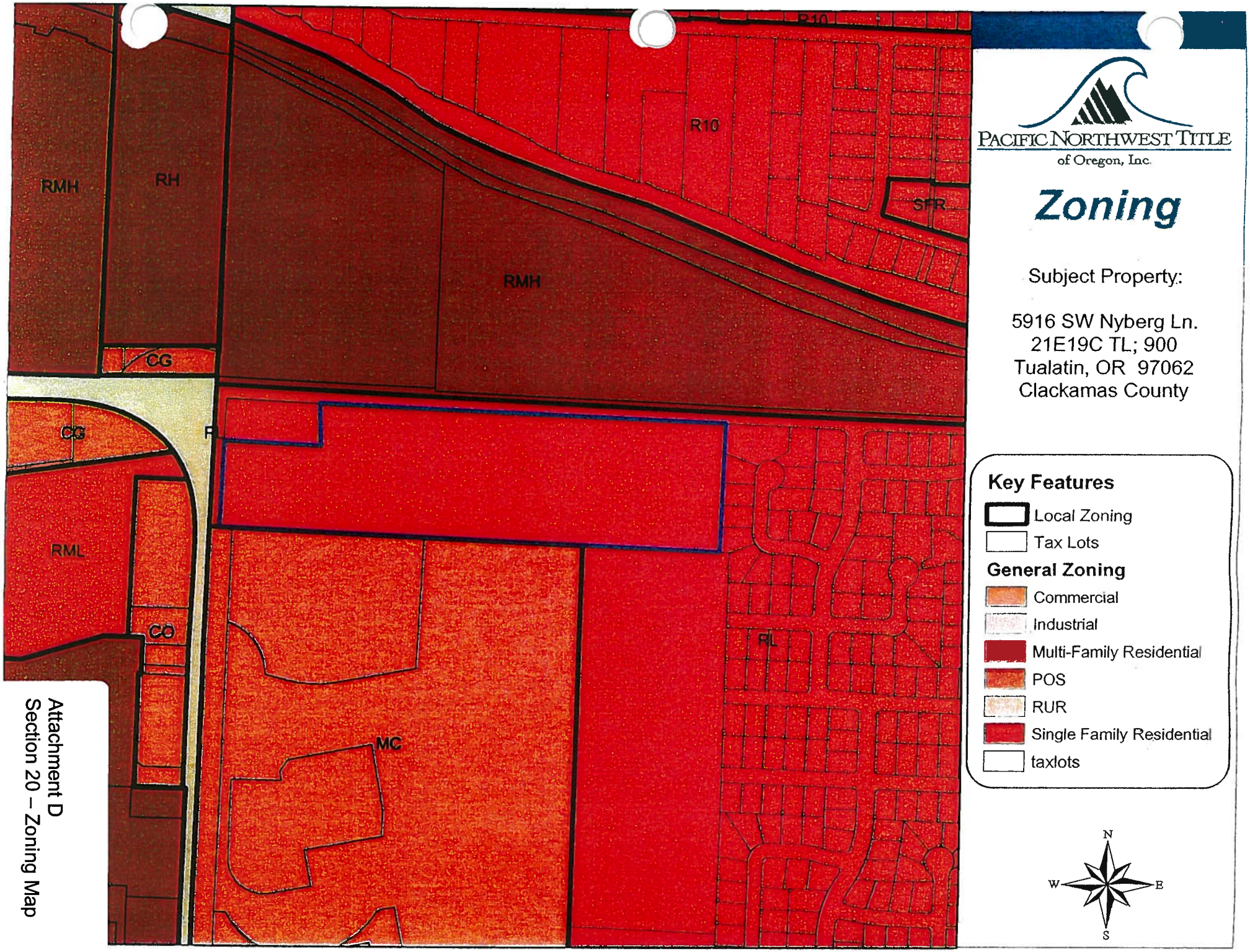
PACIFIC NORTHWEST TITLE
of Oregon, Inc.

Aerial

Subject Property:

5916 SW Nyberg Ln.
21E19C TL; 900
Tualatin, OR 97062
Clackamas County

Attachment D
Section 19 – Aerial Photo of Are



Attachment D
Section 20 – Zoning Map

Rendered Concept Plan

Building Program Summary

Clubhouse / Fitness Center (2 stories):	20,225 sf
Seven Indoor Tennis Courts:	52,230 sf
Activity Center (2 stories):	17,200 sf
Storage:	1,585 sf

TOTAL BUILDING PROGRAM
91,240 sf

Parking Program Summary

Standard Parking:	87 stalls
Compact Parking:	39 stalls
Accessible Parking:	5 stalls

TOTAL PARKING
131 stalls

Other Program

- Three Outdoor Tennis Courts w/ Removable Seasonal Cover
- Activity Center
  - Tennis Alleys
  - Kid's Club
  - Multi-Purpose Cabana / Snack Bar
    - changing rooms / open lockers
    - restrooms
    - storage
    - pool equipment
- Swimming Pool
- Tennis Alley
- Terrace

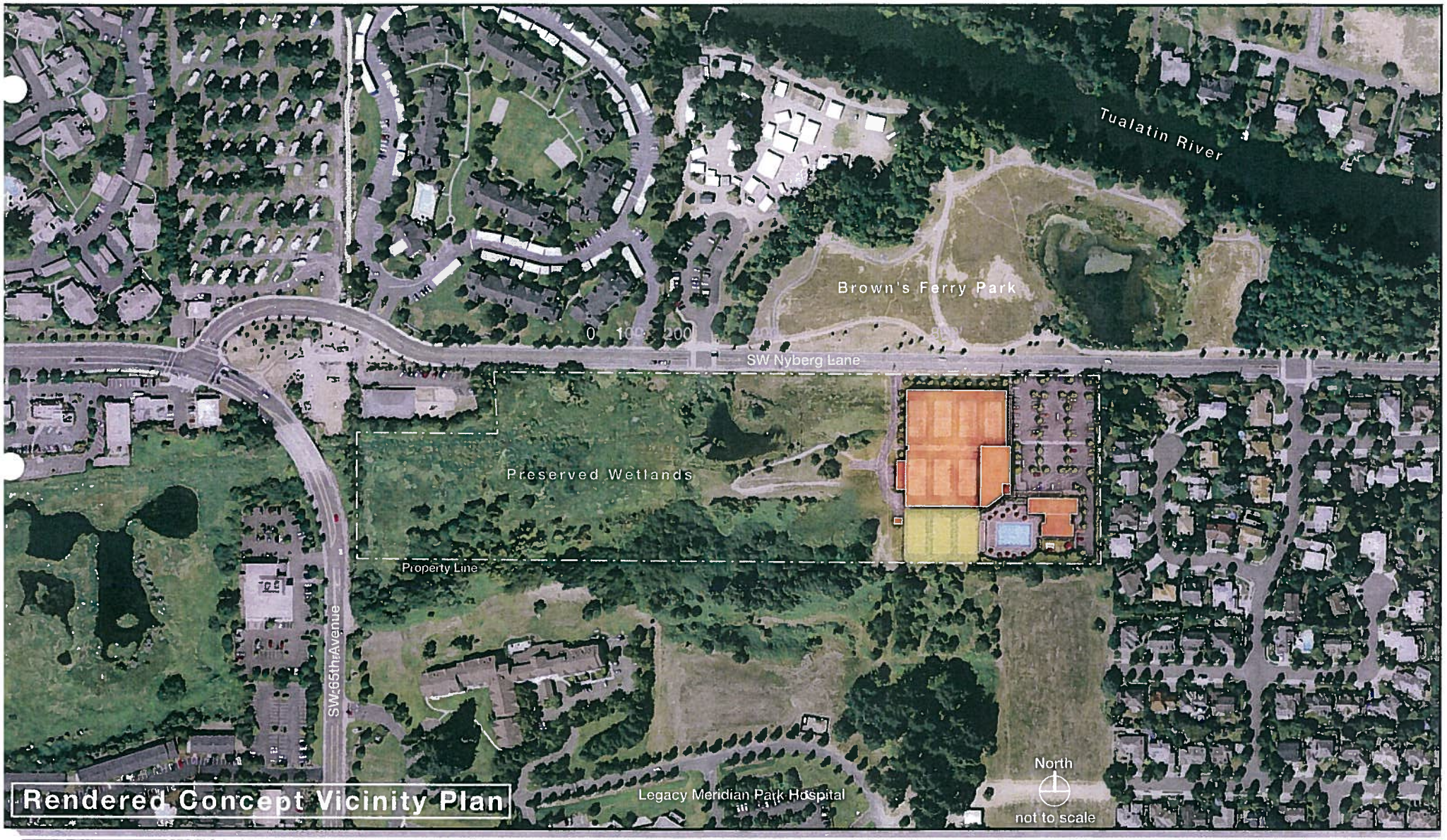
CUP-09-01
2nd Submittal
Date: 3/25/2009

Stafford Hills Racquet & Fitness Club
Tualatin, Oregon 084030 March 2009

Zupancic Group
Real Estate Advisors and Developers

MYHRE · GROUP
Architects

Attachment D
Section 21 – Proposed Preliminary Site Plan



Rendered Concept Vicinity Plan

Zupancic Group
Real Estate Counsel and Developers

March 26, 2009

CITY OF TUALATIN
RECEIVED
MAR 2 2009
COMMUNITY DEVELOPMENT
PLANNING DIVISION

Doug Rux
Community Development Director
City of Tualatin
18880 SW Martinazzi Ave.
Tualatin, OR 97062

HAND DELIVERED

Re: Project: Stafford Hills Racquet & Fitness Club
Application: Conditional Use Permit
Scheduled City Council Meeting, April 27, 2009

Dear Doug:

On February 17, 2009, we filed the application for the Conditional Use Permit in connection with the above-referenced project. This is an amendment to that application and we request that this information be included within the application binders previously provided, and reflected in the Staff Report.

We continue to refine the design of Stafford Hills Racquet & Fitness Club with our design team, as well as meet on a frequent basis with nearby neighbors and interested constituents. We believe that this amendment reflects significant improvements in the project design and also addresses concerns expressed by a few nearby neighbors. I have included an updated Rendered Concept Plan which reflects the design improvements. This new punched 11 x 17 color site map should be inserted under Tab 21 as an updated site plan. I have included 14 color copies for your convenience.

A summary of these design improvements are as follows:

1. The Activity Center has been reoriented to (a) create a better sound barrier around the aquatics area; and (b) reduce light emissions.

   This reorientation will require the demolition of the existing house and the construction of a new structure. However, the placement of a structure between the aquatics area and the nearby residences, with the tennis alleys located on the far east side, will provide maximum sound and visual protection for the neighbors. The absence of windows on the tennis alley means that the neighbors will not be troubled with potential light emissions from that building or anyone looking into their backyards.

2. The parking has been slightly reconfigured to add five additional parking stalls (total 131), with additional Activity Center (staff) parking directed away from the nearby residences.

3. By lowering the elevation of the Pool Terrace to +124, as well as the main floor of the Activity Center, we believe that this will provide a more convenient and accessible passageway between these two buildings. However, by lowering the Pool Terrace elevation to +124, it is necessary to recalculate the building height of the indoor tennis court structure. The actual height of the indoor tennis court structure has not changed, but by lowering the elevation of the pool terrace by 3 feet, the consequence is to add 3 feet to the height of the tennis court building simply because of the way that the building height is calculated. Therefore, Tab 6 (Height Requirements) should be amended to reflect that the tennis building height now measures 38 feet to the parapet. Again, this is simply a calculation change, with no proposed change to the physical structure.

4. The size of the buildings has been increased slightly to accommodate for additional program space.

5. A "beach entry" kiddie pool and play area have been added in the aquatics area.

With these additional refinements, we believe that the design of Stafford Hills is getting better and better. We continue to maintain good communication with the neighbors and are planning an additional neighborhood meeting on April 20, to update them on these changes. At that meeting we will also be sharing information that will be included in our Architectural Review Board application.

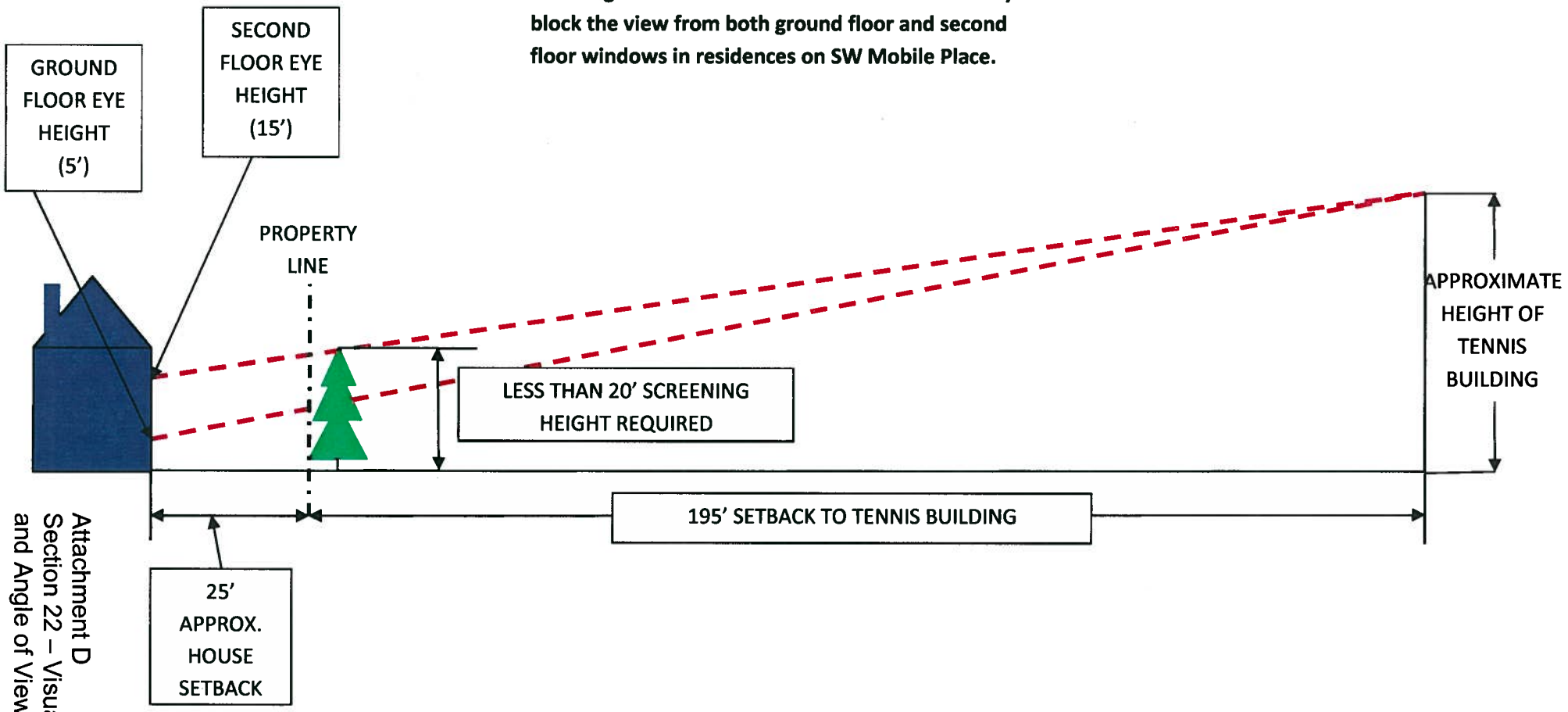
We sincerely appreciate the cooperation and assistance of Will Harper and your staff. If you have any questions with regard to this amendment, please feel free to contact me directly.

Cordially,
Zupancic Group

James D. Zupancic, Esq., CRE
President
Enclosures
cc: Myhre Group Architects
Harris-McMonagle Engineers

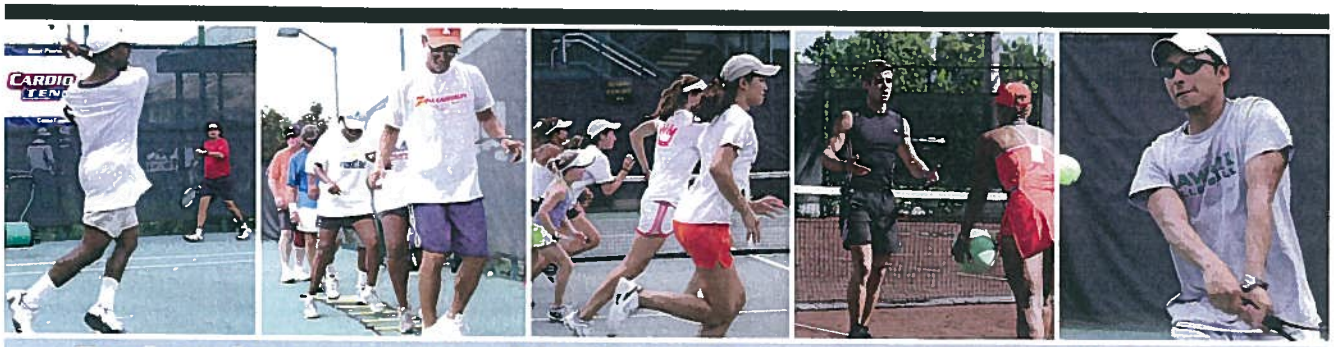
VIEWING ANGLES AND TREE HEIGHTS

This diagram shows that 18' to 20' trees effectively block the view from both ground floor and second floor windows in residences on SW Mobile Place.



Attachment D
Section 22 – Visual Mitigation
and Angle of View

TENNIS - FOR THE HEALTH OF IT!℠



Tennis can improve your overall health, including your mental and physical fitness, according to world-renowned scientists from a variety of disciplines. Here are the facts:

- People who play tennis three hours per week at a moderately vigorous intensity cut in half their risk of death from any cause.
- Tennis players scored higher in vigor, optimism and self-esteem while scoring lower in depression, anger, confusion, anxiety and tension than other athletes and nonathletes.
- Since tennis requires alertness and tactical thinking, it may generate new connections between nerves in the brain and promote a lifetime of continuing brain development.
- Tennis outperforms golf and most other sports in developing positive personality characteristics.
- Competitive tennis burns more calories than aerobics or cycling.

TENNIS for the health of it!
A USPTA initiative

With these facts in mind, review the 34 specific reasons why you should consider playing regularly!

Health, fitness, fun make sport excellent choice

Physical reasons to play tennis – Tennis enhances your:

1. **aerobic fitness** by burning fat and improving your cardiovascular fitness and maintaining higher energy levels.
2. **anaerobic fitness** by offering short, intense bursts of activity during a point followed by rest, which helps muscles use oxygen efficiently.
3. **ability to accelerate** by providing practice in sprinting, jumping and lunging quickly.
4. **powerful first step** by requiring anticipation, quick reaction time and explosion into action.
5. **speed** through a series of side-to-side and up and back sprints to chase the ball.
6. **leg strength** through hundreds of starts and stops that build stronger leg muscles.
7. **general body coordination** since you have to move into position and then adjust your upper body to hit the ball successfully.
8. **gross motor control** through movement and ball-striking skills that require control of your large muscle groups.
9. **fine motor control** by use of touch shots like angled volleys, drop shots and lobs.
10. **agility** by forcing you to change direction as many as five times in 10 seconds during a typical point.
11. **dynamic balance** through hundreds of starts, stops, changes of direction and hitting on the run.
12. **cross-training** through a physically demanding sport that's fun for athletes who specialize in other sports.
13. **bone strength and density** by strengthening bones of young players and helping prevent osteoporosis in older ones.
14. **immune system** through its conditioning effects, which promotes overall health, fitness and resistance to disease.
15. **nutritional habits** by eating appropriately before competition to enhance energy production and after competition to practice proper recovery methods.
16. **hand-eye coordination** because you constantly judge the timing between the oncoming ball and the proper contact point.
17. **flexibility** due to the constant stretching and maneuvering to return the ball to your opponent.

Psychological reasons to play tennis – Tennis helps you:

18. **develop a work ethic** because improvement through lessons or practice reinforces the value of hard work.
19. **develop discipline** since you learn to work on your skills in practice and control the pace of play in competition.
20. **manage mistakes** by learning to play within your abilities, and realizing that managing and minimizing mistakes in tennis or life is critical.
21. **learn to compete one-on-one** because the ability to do battle on court trains you in the ups and downs of a competitive world.
22. **accept responsibility** by practicing skills and checking your equipment before a match, and by making accurate line calls during a match.
23. **manage adversity** by learning to adjust to the elements (e.g. wind, sun) and still be able to compete tenaciously.
24. **control stress effectively** because the physical, mental and emotional stress of tennis will force you to increase your capacity for dealing with stress.
25. **learn how to recover** by adapting to the stress of a point and the recovery period between points, which is similar to the stress and recovery cycles in life.
26. **plan and implement strategies** since you naturally learn how to anticipate your opponent's moves and plan your countermoves.
27. **learn to solve problems** since tennis is a sport based on angles, geometry and physics.
28. **develop performance rituals** before serving or returning to control your rhythm of play and deal with pressure. These skills can transfer to taking exams, conducting a meeting or making an important sales presentation.
29. **learn sportsmanship** since tennis teaches you to compete fairly with opponents.
30. **learn to win graciously and lose with honor.** Gloating after a win or making excuses after a loss doesn't work in tennis or in life.
31. **learn teamwork** since successful doubles play depends on the ability of you and your partner to communicate and play as a cohesive unit.
32. **develop social skills** through interaction and communication before a match, while changing sides on the court and after play.
33. **have fun** – because the healthy feelings of enjoyment, competitiveness and physical challenge are inherent in the sport.

ry and reason No. 34

onder that scientists and physicians around the world view tennis as the most healthful activity in which you can participate? While other sports can provide health benefits and some can promote d emotional growth, none can compete with tennis in delivering overall physical, mental and emotional gains to those who play.

enefits make tennis the ideal sport for kids to learn early in life. And, it's never too late for adults of all ages to take up the game. The human system can be trained and improved at any stage key is to start playing now to get the most out of these benefits throughout your lifetime.

rings us to reason No. 34: **Tennis is truly the sport for a lifetime! The proof is in the playing.**

To start playing the game, call
800-USPTA-4U or visit www.usptafindapro.com

presented by USPTA

Attachment D
Section 23 – Tennis for the Health of It!

ATTACHMENT E

CUP-09-01: BACKGROUND INFORMATION

Pertinent background information obtained from the submitted application for CUP-09-01 and other supporting documents is summarized in this section.

The applicant is Jim Zupancic of the Zupancic Group. Joseph P. and Anita L. Kozlowski are the owners of the 15.6 acres, Tax Lot 900 (Map 21E19C) subject property located at 5916 SW Nyberg Lane in the Low Density Residential (RL) Planning District. The property is undeveloped except for a house and small accessory structures. The vicinity of the site includes single-family residential development to the east, the Meridian Park Hospital campus and vacant property adjoining on the south, an unoccupied child care center building on the west and the Stone's Throw Apartments and Brown's Ferry Park across SW Nyberg Lane to the north. A Vicinity Map, a Tax Map and a Site Map are included as Attachments A, B & C respectively. The applicant's materials including a site plan are included as Attachment D.

The applicants seek a Conditional Use permit to allow a private club facility use and allow an increase in building height to 38 ft. (40 ft. recommended by staff) in the RL Planning District. The proposed Stafford Hills Racquet & Fitness Club will feature indoor and outdoor tennis courts, an outdoor pool, indoor practice courts and fitness area, kids activity area and a clubhouse constructed on the approximately 5 acres eastern portion of the property and leave the NRPO protected wetlands and Nyberg Creek on the approximately 10 acres western portion of the property undeveloped. The application site plan shows 131 parking spaces on the site with access from SW Nyberg Lane.

ATTACHMENT F

CUP-09-01: ANALYSIS AND FINDINGS

The approval criteria of the Tualatin Development Code (TDC) 32.030 must be met if the proposed Conditional Use Permit for a private club use and increased building height is to be granted. The Applicants prepared a narrative that addresses the CUP criteria (Attachment D). Staff has reviewed the Applicants' material and included pertinent excerpts below.

1. The use is listed as a Conditional Use in the underlying planning district.

"Golf course, country club and private club" are a Conditional Use in the RL Planning District [40.030(4)(l)]. The proposed Stafford Hills Racquet and Fitness Club (SHR&F Club) is a "private club" that offers facilities, activities and services to a membership. As a membership tennis club that provides facilities for active athletic/recreation activities, tennis tournaments and events as well as personal health & fitness services, leisure and social activities including dining, member events and meetings, the SHR&F Club is similar to both a "golf course" and a "country club". The proposed SHR&F Club facility is a conditional use in the RL Planning District.

"Child day care center" is a Conditional Use in the RL Planning District [40.030(4)(e)].. The SHR&F Club application indicates the facility will include a "Kid's Club" supervised activity and child care for member families and guests and available when the member family is present on-site. This activity is consistent with member services offered by a private club, golf course or country club and allowed with those uses. At such time the child care service at the SHR&F Club facility are subject to licensing or certification as a child day center use available to non-members, conditional use permit approval will be required.

"Increased building height to a maximum of 75 feet, if all yards adjoining said building are not less than a distance equal to 1½ times the height of the building" is listed as a Conditional Use in the RL Planning District [40.030(4)(n)]. The applicant proposes an increase of structure height of the Tennis Building from the 35 ft. maximum allowed in the RL Planning District (TDC 40.100) to 38 ft. Staff recommends the additional height increase be to 40 ft. to allow for building and grade adjustments that may occur during the development process.

The private club use and increased building height are Conditional Uses in TDC 40.030(4)(l & n) listed above, meeting Criterion 1.

2. The characteristics of the site are suitable for the proposed use, considering size, shape, location, topography, existence of improvements and natural features.

Size:	The SHR&F Club site is a 5 acre development area on the eastern portion of the 15.6 acre Tax Lot 900. The site is currently undeveloped except for a house and outbuilding located at the southeast corner of the property. No development is proposed on the approximately 10 acre western portion of the property. The proposed site plan shows the proposed buildings and outdoor improvements and required building setbacks, parking and landscaping will fit on the 5 acre development area. The site size is suitable for the use.
Shape:	The shape of the subject property and the development area is a rectangular lot and is suitable for the proposed use. Access to the SHR&F Club facility is via a primary driveway and a service/fire driveway from SW Nyberg Lane.
Location:	The site is located on the south side of SW Nyberg Lane and east of SW 65th Avenue in the RL Planning District. The vicinity of the site includes single-family residential development to the east (SW Mobile Place), the Meridian Park Hospital campus and vacant property adjoining on the south, an unoccupied child day care center on the west and the Stone's Throw Apartments and Brown's Ferry Park across SW Nyberg Lane to the north. (Vicinity Map A).
Topography:	The development area is low-lying, relatively flat while sloping south away from the creek and public street. The western portion of the property is the Nyberg Creek stream course with associated wetland that lie within the Tualatin River floodplain.
Improvements:	The existing site improvements include a house and small outbuildings.
Natural Features:	The 10 acre western portion of Tax Lot 900 includes Nyberg Creek and its associated wetland areas extending at the SW 65th Avenue bridge on the west to the SW Nyberg Lane culvert crossing on the north. TDC Map 72-1 designates the creek on Tax Lot 900 as part of the Nyberg Creek NRPO-CG Creek Greenway (Attachment B) The Nyberg Creek wetland on the property is designated a Wetland Preservation Natural Area NRPO-WPNA and the wooded upland on the south side of Tax Lot 900 and the adjoining Meridian Park Hospital property is designated Open Space Natural Area NRPO-OSNA. No development is proposed in the NRPO designated greenway, wetlands or open space. The plans show 3 wetlands (A, B & C) within the development area (Attachment D, Section 21) that are subject to a pending Wetland Fill Permit application filed by the applicant. The plans also show existing conifer and deciduous trees in the area around the existing house that will conflict with the proposed SHR&F Club development. Removal of the

existing trees will be addressed in the Architectural Review process.

The applicant describes the characteristics of the site in relation to location, site topography, the proposed development to the surrounding neighborhood and to the City at large. The applicant states, "Once constructed, the proposed Stafford Hills Racquet & Fitness Club will add a high quality, private athletic club on the eastern portion of the subject parcel." (Attachment D Section 5-Application Narrative, pg. 3).

The 2nd Submittal site plan shows the development area occupied by the 52,000 sq. ft. indoor tennis building, the attached 2-level Clubhouse, the 2-level Activity Center building, the 3 outdoor/seasonally covered tennis courts, the outdoor pool terrace and play area, surface parking for 131 cars, and landscaping. The 38-40 ft. parapet walls of the Clubhouse building are set back 195 ft. from the east property line and 125 ft. to the south property line and 165 ft. to the north property line which satisfy the setback standards for increased building height. If a tract is created for the CWS Vegetated Corridors on the west edge of the development area, the parapet wall of the Clubhouse wing will be setback approximately 180 ft. or more and meet the standard.

Parking and vehicular areas are shown and required (TDC 40.080) to be setback a minimum of 10 ft. to property lines, including the residential properties on the east. Vehicle access will be obtained from SW Nyberg Lane and a network of pedestrian paths is proposed connecting SHR&F Club with the Meridian Park Hospital campus, natural areas, and Brown's Ferry Park. Wetland mitigation and natural area enhancements are proposed on the adjacent Nyberg Creek wetland. The proposed private athletic club use and the requested increase in building height are shown in the application to be suitable for the site.

The applicant details how the SHR&F Club facility will fit on the site and is suitable for the use, citing the building and outdoor activity locations and setbacks in respect to the residential areas to the east, buffering of the larger building and outdoor activity areas to adjacent properties and SW Nyberg Lane, the separation of the access from other developments and streets and retaining the 10 acre natural wetland and creek area on the western portion of the property (Attachment D-Section 5 Application Narrative, pp. 1-8).

Email messages/letters from Julie Sepp and Janice Dove, neighboring residents on SW Mobile Place (Attachment H), both raise concerns about the potential for noise disturbances in early morning and late hours that may occur when locating employee parking near the residences adjoining the SHR&F Club east property line. The Applicant's March 26, 2006 letter and the 2nd Submittal Site Plan (Attachment D Section 21) shows the proposed relocation of the Activity Building to provide a buffer between the club's outdoor activity areas and the residences to the east and a reconfiguration of parking away from the east side of the drive aisle to stalls facing the building. Location of parking in this area is acceptable, but as a measure to avoid the potential for early morning and late evening noise associated with employee or member arrival/departure activity, parking can be restricted from stalls along the east of the site. Under the findings for Criterion #4, Staff recommends a parking

management plan specifying parking before 8 a.m. be restricted from parking stalls within 100 ft. of the SHR&F Club east property line.

Given the features and improvements of the subject property listed above, and the condition of approval restricting parking from the east side of the parking before 8:00 a.m., it is concluded the characteristics of the site are suitable for the proposed uses.

Criterion 2 is met.

3. The proposed development is timely, considering the adequacy of transportation systems, public facilities and services existing or planned for the area affected by the use.

Public sewer and water facilities are available to serve the site and proposed use (Attachment G-Engineering Division Memorandum). The public and private sewer, water and stormwater facilities for the proposed SHR&F Club development will be evaluated and determined the Architectural Review Public Facilities decision.

Letter #2 from Janice Dove, a resident property owners adjoining the site on SW Mobile Place (Attachment H - Janice Dove Email Letter) submitted concerns about stormwater runoff from the site and its effect on flooding of SW Nyberg Lane. The Engineering Division Memo (Attachment G) responds that a Architectural Review Public Facilities Decision will apply the City's storm water and floodplain requirements that will designed to minimize the impacts of a development.

The site is adjacent to and takes access from SW Nyberg Lane, a Minor Collector (Cb) Street, which connects to the signaled intersection at SW 65th Avenue on the west. The submitted application included a traffic study (Attachment D, Kittelson & Associates, Inc. Stafford Hills Racquet & Fitness Club Traffic Impact Analysis).

The Engineering Division reviewed the Applicant's submitted Traffic Impact Analysis (TIA) that showed adequate capacity at the intersection of SW Nyberg Road/SW 65th Avenue/SW Nyberg Lane (LOS B/B for AM/PM Peaks, respectively) and seven other intersections in addition to the site access for the proposed SHR&F Club development (Attachment G). The table below shows the Site Trip Generation Summary based on a conservative estimate of traffic entering and leaving the site access on SW Nyberg Lane:

SHR&F Club Site	Entering Trips	Exiting Trips	Total Trips
AM Peak Hour	35	15	50
PM Peak Hour	55	45	100

The TIA estimates (using conservative ITE and comparative rates) that the proposed SHR&F Club development will generate up to 1,010 daily (weekday) trips, contributing 50 additional AM Peak Hour Trips and 100 PM Peak Hour Trips to SW Nyberg Lane.

The City Engineer generally agrees with the impact analysis (Attachment G-Memorandum) that the existing transportation improvements are adequate to support the proposed use.

The Engineering Division Memo reports the TIA estimates the average daily trip traffic on SW 57th Avenue is expected to increase by 3 to 5 percent (35 to 60 trips per day). Average daily traffic on SW 50th Avenue is expected to increase by around 8 percent (140 to 160 trips per day). Both are within the day-to-day fluctuation in daily traffic volume. Neither increase changes the character or intended purpose of the streets.

The Engineering Division prepared the following table to provide a comparison of the Peak Hour Vehicle Trips estimated for the proposed private club use to the vehicle trips possible for detached single family residential lots allowed as a permitted use in the RL Planning District. The most feasible comparison is the 6-lot subdivision, due to the presence of wetlands, floodplain regulations, Clean Water Services requirements and other constraints and the amount of developable land occupied by a public street. In a reasonable scenario of residential development under the permitted RL standards, the proposed private club development will increase the number of vehicle trips on SW Nyberg Lane.

# Single Family Residential Lots	**AM Peak**	**PM Peak**	**Average Daily Trips**
3 (w/ Public Street ROW) (Increased floodplain & water quality standards)	3	4	29
6 (5 acre development area w/ private Access Drive)	5	7	58
CUP-09-01	50	100	1010
***105** (all 15. 6 Acres of Tax Lot 900)	*80	*110	*1090

*Infeasible development scenario due to 10+ acres of unbuildable floodplain and wetland. This scenario was reported in previous traffic analysis for a withdrawn Plan Map Amendment application on Tax Lot 900.

Concerns about increased traffic on SW Nyberg Lane associated with the SHR&F Club were raised in comments by neighboring residents (Attachment H) and mentioned in the Criterion #4 analysis. The concerns are for neighborhood safety and for wildlife that frequent Nyberg Creek and Brown's Ferry Park and cross SW Nyberg Lane. The traffic study establishes that the streets and intersections that serve the subject property have capacity to support the SHR&R Club use. Safety of wildlife that stray onto a public street cannot be evaluated and is not germane to the Conditional Use Criteria.

Traffic generation from the Conditional Use will not limit, impair or preclude surrounding properties from primary uses allowed in this Planning District.

Based on staff review and analysis of the application, public facilities are available for the site are adequate for the proposed use and the development is timely.

Criterion 3 is met.

4. The proposed use will not alter the character of the surrounding area in any manner that substantially limits, impairs, or precludes the use of surrounding properties for the primary uses listed in the underlying planning district.

The subject territory is in the RL Planning District (Attachment B). Surrounding land uses are:

N:	RMH	(across SW Nyberg Lane) Stones Throw Apartments Brown's Ferry Park
E:	RL	Fox Hills #3 Residential Subdivision
S:	RL	Undeveloped (Tax Lot 2000, Former farm, now Legacy Health Systems property)
	MC	Legacy Meridian Park Hospital Campus
W:	RL	(Unoccupied) La Petite Child Care Center Building
	RML	Wetland (Across SW 65th Avenue)
	CO	Whitney Office Building (Across SW 65th Avenue)

The properties adjoining the south property line of the SHR&F Club site are both owned by Legacy Health Systems and are designated single-family residential (Tax Lot 2000) (RL, vacant) and Medical Center (MC)(Legacy Meridian Park Hospital campus). The western portion of the subject site includes the 10 acres Nyberg Creek wetlands on the property that the applicant proposes to enhance and not develop. The creek wetland adjoins the unoccupied childcare center. The vicinity to the north across SW Nyberg Lane is the Stones Throw Apartment complex and the public Brown's Ferry Park. The area to the east is designated RL and developed as a single-family residential subdivision and includes the abutting residential properties located on SW Mobile Place and accessed off of SW 57th Avenue. (Attachment B)

The applicant states, "The RL District is primarily a residential district. However the area to the east is essentially 'built out' and the area to the north is already reserved as parkland. The area to the south is owned by Legacy Health systems, and we understand that the hospital is preparing an application to have the vacant parcel (Tax Lot 2000) rezoned to 'Medical Campus' (MC)" designation. Thus, the only area potentially left for a large scale residential development is presumably not going to be residential, and the proposed use as a private athletic club is complimentary to medical office and professional buildings" (Attachment D-Application Narrative, pg. 9). The

applicant describes the access to the site (from SW Nyberg Lane), the proposed site and building design, expected traffic patterns from the east and west, on-site surface parking (131 spaces), the list of indoor and outdoor activities, the hours of operation (5:30 a.m. to 10:00 p.m.).

Area West and North. The proposed SHR&F Club facility as a private athletic club use and with a proposed building height increase to 40 ft. will not alter the character or preclude the uses in the areas to the west and north of the facility site. With the layout of the buildings and the site, the presence of the Nyberg Creek wetlands to the west of the development area and with the distances separating the SHR&R Club facility from the day care center, the apartments to the west/northwest and the Brown's Ferry Park to the north will not be limited or impaired.

Area South. The Legacy Health Systems property to the south is the site of the present Meridian Park Hospital campus with room for future development on the largely vacant Tax Lot 2000 in the RL Planning District. The property rises in an undeveloped slope from the SHR&F Club with trees and other natural vegetation and a former farm field on the east. The SHR&F Club site plan shows the parking, Activity Center building, pool terrace and the outdoor tennis courts (with seasonal cover) adjoining the south property line with landscaping and retaining walls that will provide an adequate buffer to the Legacy property. The tennis courts are shown with a 3 ft. setback and will likely have a perimeter net/fence to enclose the court area on the south. The indoor tennis courts building will have a 50,000 sq. ft. rooftop that will be at a lower elevation and visible from the existing and future Legacy Meridian Park Hospital campus and buildings. A visual buffer to the SHR&F Club building and outdoor facilities is necessary to avoid impairing the uses allowed in the MC or RL Planning District and meet Criterion 4. To ensure an adequate visual buffer between the Legacy Health Systems property to the proposed SHR&F Club outdoor/covered courts and indoor tennis building, the proposed club facility shall submit an Architectural Review plan that shows a buffer of evergreen and deciduous plantings on the south perimeter of the development area that extend from planter grade to 10 ft. in height to provide screening of the outdoor courts and include trees that will reach a minimum mature height of 30 ft. or more to provide a buffer to the indoor tennis building rooftop.

Area East. The SHR&F Club conditional use permit application site plan shows the facility parking area bordered by a 10 ft. wide landscape planter adjoining the single family residential home properties on the east side of the site. The Activity building is setback approximately 50 ft. from the east property line and screens the outdoor pool terrace to the residential properties on the east. The Clubhouse and Indoor Tennis Buildings are setback 195 ft. to the east property line and separated by the parking field and parking area landscaping. The applicant states, "As to the impact on the existing residential community, we have received numerous communications in support of this project from the adjoining neighborhood residents. We believe that the facility's proximity will be a 'selling point' for marketing homes in these neighborhoods, and will

act to help support property values. In any event, through careful consideration of setbacks, landscaping, and layout, the facility will not impair or negatively impact the existing residential uses." (Attachment D Section 5, pg. 9)

Minimizing the impacts of the private athletic club with increased building height and achieving compatibility with the existing residential area east of the site represents the primary challenge for the SHR&F Club facility in terms of meeting conditional use Criterion 4. While there have been supportive comments by Tualatin property owners that have been received in the conditional use process, three letters submitted by Fox Hills 3 residents that raise issues with the proposal were received and discussed below.

Letter #1 & #2. Resident property owners adjoining the site on SW Mobile Place (Attachment H - Julie Sepp & Janice Dove Email Letters) submitted concerns about early and late hours of operation, location of employee parking near residential property creating a potential for disruptive early morning/late evening noise, increase in traffic, and the potential for tournaments and events at the athletic club resulting in visitors parking on nearby residential streets. Janice Dove also was concerned about retaining larger trees on the SHR&F Club east property line as a buffer and concerns about noise from activities at the Kid's Play area, the outdoor pool and tennis courts. The Julie Sepp comment letter also stated:

> "Allowing a large business to be developed on property where the city intended for single family homes, will negatively impact the character of our neighborhood and the value of our home. I am also concerned about the potential risk of water contamination, the effects on the water table and how the displaced water will effect the neighboring properties. This project will have a huge negative impact on light pollution, sewer services, and harm to wildlife, including the death of many large beautiful mature trees." "I would please ask that a fifty foot setback from the residential property line be enforced and that the hours of operation be limited from 8:00 a.m. to 8:00 p.m. "

Janice Dove also requested conditions requiring a 50 ft. setback and restricting hours from 8:00 a.m. to 8:00 p.m. and asked that the proposed roll-up doors of the indoor tennis courts be kept closed except for cleaning and flood conditions.

Letter #3. A resident property owner adjoining the site on SW Mobile Place (Attachment H - Doug Rasmussen Email) submitted concerns about the SHR&F Club project causing more traffic on SW Nyberg Lane and a potential for harm to wildlife that frequent the creek and ponds and cross SW Nyberg Lane. The comment letter stated:

> "I don't think this is good for our neighborhood. More traffic on Nyberg Lane, We already have people using it as a drag strip from the stop sign at 57th west. I think 4-6 homes would add more to our community than a business that drives wildlife away."

The concerns raised in Letters #1, #2 and #3 about traffic impacts of the SHR&F Club are timeliness and public facilities issues that are addressed in the analysis of Criterion #3.

The proposed site plan and narrative show the Clubhouse and indoor tennis center buildings setback a minimum of 195 ft. from the residential areas to the east with 18 to 20 ft. trees on the planter along the site's east property line providing screening of the buildings. The Clubhouse is shown with a height of 38 ft. that if approved would meet the increase in building height setback standard for a conditional use. The applicant provides a diagram (Attachment D, Section 22) showing the viewing angles from 1st and 2nd floor windows in houses located east of the SHR&F Club site. The applicant states "As the diagram shows, trees from 18 to 20 ft. tall along the property line will effectively block the view of the proposed (Clubhouse) building, even from second story windows." (Attachment D Section 5, pg. 6)

The 2nd Submittal Site Plan shows the 2-story Activity Center Building located at the southeast corner of the site, providing a separation between the outdoor activity areas and the residential properties to the east. The Activity Center is setback approximately 60 ft. from the east property line adjoining the Fox Hills 3 residential properties. The plans and narrative do not specify screening between the Activity Center Building and neighboring residences. Neighbor comments raise the issue of the compatibility of a large facility in a residential area and the effect of larger trees on visual and noise buffers. Using setbacks and screening provides a means to buffer the uses and minimize impacts on the character of the residential areas to the east. To ensure that the SHR&F Club buildings with the proposed increased building height is adequately buffered to the residences east of the site and meet Criterion 4, the proposed athletic club facility shall submit an Architectural Review plan that shows a buffer of evergreen and deciduous plantings on the east perimeter of the development area that that extend from planter grade to a minimum height of 12 ft. and include trees that have a minimum planted size of 12 ft. or 3" caliper and will reach a minimum mature height of 30 ft. or more.

Letters #1 & #2 raise concerns about the proposed hours of operation of the SHR&F Club, asking to limit the hours from 8:00 a.m. to 8 p.m., and locating employee parking where there is a potential for disruptive early morning/late evening noise. The site plan shows the location of parking fields on the east side of the buildings which creates a separation between the buildings and residents to the east while putting some parking stalls and the activities of car occupants closer to adjoining residences. The applicant indicates the hours of operation will be from "5:30 a.m. to 10:00 p.m." and it can be expected that employees and members would be arriving and departing before and after the operating hours. Tournaments and events on the site will introduce the potential for late-hour activity in parking fields. In regard to the parking field issues, the applicant states "The noise generated by the club patrons and associated traffic is also a concern. We have routed the main traffic access (from SW Nyberg Lane) as far west as possible (from the east property line) and will utilize the parking closest to the eastern property line (residential border) for staff parking."(Attachment D Section 5, pg. 6)

Staff agrees that locating buildings on the western portion of the development area and locating parking on the eastern portion is a suitable approach to site design, providing setbacks and separation between residential neighbors to the buildings and athletic club activity areas. In response to the concerns that early and late activity in the parking fields may be disruptive to residential neighbors and to meet Criterion 4, staff recommends establishing parking measures that will minimize impacts on neighboring residential uses. Staff recommends a condition of approval requiring the SHR&F Club to establish a parking management program that will restrict on-site parking before 8 am from parking stalls within 100 ft. of the SHR&F Club east property line. This allows member and staff parking in three rows of parking stalls near the Clubhouse/Tennis Building entrance (approximately 56 spaces) for the early morning tennis court times. With 7 indoor courts, the fitness center and practice alleys drawing patrons and an estimated 4-6 staff people on-site during the opening to 8 a.m. hours, the approximately 56 parking spaces are sufficient in consideration of the 1 stall per 1,000 s.f. minimum parking standard of TDC 73.370. This measure will reduce the potential for early morning disruptions by opening the remaining parking stalls including the stalls adjacent to the Activity Building that are closer to the residential properties after the 8 a.m. hour. Staff also recommends a condition of approval requiring that SHR&F Club activities in the buildings and on-site end by 10:00 p.m. and that the buildings and parking areas be closed by 10:30 p.m. The required closure hours will discourage, if not eliminate disruptive noise and activity in the athletic club's parking areas into the late evening hours. This will be especially important when tournaments and special events are held and there is a significant increase in the number of visitors and staff on the site.

Letter #1 also raised a concern about people parking on nearby residential streets while attending tournaments and events occurring at the proposed SHR&F Club. No information about the expected attendance of tournaments and events is provided in the application. The adjacent SW Nyberg Lane is classified a Minor Collector (Cb) and does not have on-street parking. A total of 131 on-site parking spaces are proposed and based on the proposed use and activities, the needed parking will be evaluated in the Architectural Review process. To ensure there is adequate on-site parking and to avoid spill over parking onto neighboring residential streets, staff recommends a condition of approval requiring submittal of a Parking Management Plan for the SHR&F Club use with an Architectural Review application. The Parking Management Plan shall include provisions for tournament and event parking that may include limits on attendance, mechanisms for restricting SHR&F Club visitor parking on public streets, and providing off-site parking in approved parking areas.

Letter #1 listed "light pollution" as a concern. The applicant responded (Attachment D Section 5, Page 6) to "...'glow' from the windows of the tennis building as well as lights from automobile headlights shining into the back yard." The applicant indicates that headlights in the parking field will be screened by vegetation and fences. Features to reduce the exterior effects of interior lighting and windows will be included in the

building design. No mention of exterior lighting of the courts, pool terrace, service area and parking is mentioned. The TDC [73.380(6)] requires parking, loading and pedestrian lighting that does not cause glare onto adjacent streets, natural areas and properties. This is evaluated in the Architectural Review process. To ensure that outdoor lighting does not create glare to the adjoining public street, to the natural wetland to the west of the SHR&F Club development area and onto adjacent properties and to meet Criterion 4, the proposed private club facility shall submit an Architectural Review plan that shows exterior building and site lighting will not shine or create glare in a manner that impairs the use of a property by residents or wildlife.

Approval of this Conditional Use application will allow the Zupancic Group to develop and operate the private athletic club facility on the site. Based on the applicant's submitted information, review by staff, comments by neighboring residents and the conditions of approval regarding planting buffers to adjoining Legacy Health properties and a residential area, parking restrictions for early morning activities, requiring submittal of a parking management plan and a lighting plan, it is concluded that the proposed SHR&F Club facility will not alter the character of the surrounding area in any manner which substantially limits, impairs or precludes the surrounding properties for the primary uses listed in the underlying Planning Districts.

Criterion 4 is met.

5. The proposal is consistent with plan policies.

The applicant surveys and analyzes a number of TDC objectives related to growth, commercial districts, transportation, natural areas, parks and recreation, concluding that the proposed private club use is suitable in this location, meets transportation objectives, increases recreation facilities in the City and provides protection of the Nyberg Creek wetland area on the property with opportunity for expanded park uses. (Attachment D-Section 5 Application Narrative, pp. 16-30). Consideration of the Oregon Statewide Land Use Planning Goals is also provided.

In a review of Tualatin Community Plan objectives for residential areas, for semi-public facilities and recreation uses in the TDC, Staff did not find objectives that apply to uses such as a private athletic club locating in a RL Planning District or a 5 ft. increase in maximum building height. The purpose and intent statement of the Conditional Uses Chapter 32.010 states:

> It is the intent of this chapter to provide a set of procedures and standards for conditional uses of land or structures which, because of their unique characteristics relative to locational features, design, size, operation, circulation and public interest or service, require special consideration in relation to the welfare of adjacent properties and the community as a whole. It is the purpose of the regulations and standards set forth below to: (1) Allow, on one hand, practical

latitude for utilization of land and structures, but at the same time maintain adequate provision for the protection of the health, safety, convenience and general welfare of the community and adjacent properties;..."

The SHR&FClub conditional use application proposes an athletic club use and operation and the proposed increase in building height that are intended to be compatible with nearby residential development and a site design that creates separation and buffering between the club facilities and nearby residential uses. Staff agrees with the applicant's narrative survey of various objectives and concludes that relevant policies in the TDC including buffering residential and natural resource areas from impacts by the proposed athletic club development and adequacy of public facility needs including transportation are satisfied.

The proposal is consistent with plan policies.

Criterion 5 is met.

Based on the application and the above findings and analysis and with the recommended conditions of approval listed below, the SHR&FClub Conditional Use permit application for a private athletic club use and an increase in building height to 40 feet meets the criteria of TDC 32.030.

Recommended Conditions of Approval:

1. To ensure an adequate visual buffer between the Legacy Health Systems property to the proposed SHR&F Club outdoor/covered courts and indoor tennis building, the proposed club facility shall submit an Architectural Review plan that shows a buffer of evergreen and deciduous plantings on the south perimeter of the development area that extend from planter grade to 10 ft. in height to provide screening of the outdoor courts and include trees that will reach a minimum mature height of 30 ft. or more to provide a buffer to the indoor tennis building rooftop.
2. To ensure that the SHR&F Club buildings with the proposed increased building height is adequately buffered to the residences east of the site and meet Criterion 4, the proposed athletic club facility shall submit an Architectural Review plan that shows a buffer of evergreen and deciduous plantings on the east perimeter of the development area that that extend from planter grade to a minimum height of 12 ft. and include trees that have a minimum planted size of 12 ft. or 3" caliper and will reach a minimum mature height of 30 ft. or more.
3. The SHR&F Club shall establish a parking management program that will restrict on-site parking before 8 am from parking stalls within 100 ft. of the SHR&F Club east property line.
4. Activities in the SHR&F Club buildings and on-site shall end by 10:00 p.m. and that the buildings and parking areas be closed by 10:30 p.m.

5. To ensure there is adequate on-site parking and to avoid spill-over parking onto neighboring residential streets, a Parking Management Plan for the SHR&F Club use shall be submitted with an Architectural Review application. The Parking Management Plan shall include provisions for tournament and event parking that may include limits on attendance, mechanisms for restricting SHR&F Club visitor parking on public streets, and providing off-site parking in approved parking areas.
6. To ensure that outdoor lighting does not create glare to the adjoining public street, to the natural wetland to the west of the SHR&F Club development area and onto adjacent properties, the proposed private club facility shall submit an Architectural Review plan that shows exterior building and site lighting will not shine or create glare in a manner that impairs the use of a property by residents or wildlife.

City of Tualatin

www.ci.tualatin.or.us

MEMORANDUM

DATE: April 7, 2008

TO: Will Harper, AICP
Associate Planner

FROM: Tony Doran, EIT
Engineering Associate

SUBJECT: CUP 09-01, STAFFORD HILLS CLUB - TO ALLOW A PRIVATE CLUB (RACQUET & FITNESS) AND AN INCREASE IN BUILDING HEIGHT (TO 39 FEET) 5916 SW NYBERG LANE TAX LOT: 21E19C00900

Will,

TDC 32.030 (3) The proposed development is timely, considering the adequacy of transportation systems, public facilities, and services existing or planned for the area affected by the use.

Transportation

The site is adjacent to and development will have access to SW Nyberg Lane. While adjacent to SW 65th Avenue, no access from this site to SW 65th Avenue is plausible as NRPO covers the west side of the lot, access management doesn't allow for access from this lot, and an expired partition (PAR 04-03, Koslowski) received a response from Clackamas County for a non-access reservation strip.

SW Nyberg Lane

SW Nyberg Lane is a City of Tualatin facility and designated as Minor Collectors (Cb), which has a right-of-way width of 60 to 64 feet. Currently there is 50 feet of right-of-way, with 30 feet from centerline on the south side. The street is fully constructed with a curb tight sidewalk.

Direct access from newly constructed single-family homes, duplexes, or triplexes is required to not have access directly to Cb type Minor Collectors, requiring a public street or private tract to consolidate traffic to one location. The proposed development under CUP 09-01 is non-residential and shows one main access on the east side of the lot to SW Nyberg Lane for general use. This meets the intent of consolidating development traffic to one location. A secondary access exists on the west side of the site, but is only for occasional fire and maintenance issues.

Attachment G
Engineering Memorandum

SW 65th Avenue

SW 65th Avenue is a Clackamas and Washington County facility maintained by Washington County and designated by the City of Tualatin as a Major Arterial (Eb&t), which would ultimately have a right-of-way width of 98 to 102 feet that includes four 12-foot travel lanes, one center turn lane, 6-foot bike lanes, 6–foot planter strips, and 6–foot sidewalks. From PAR 04-03, the current width of SW 65th Avenue right-of-way along the property frontage is 20 feet east of centerline. Future dedication of right-of-way with development is expected to be an additional 31 feet (to total 51 feet from centerline).

The development as reviewed consists of 7 indoor and 3 outdoor tennis courts and a 16,000 square-foot clubhouse that includes an 8,000 square-foot fitness center.

The submitted traffic study and follow-up memorandum showed adequate capacity at all intersections for the current year and +20 year with proposed development during AM and PM Peaks. *

ODOT and Washington County have submitted responses indicating no requirements.

Reasonable Worst Case Site Trip Generation:

CUP	Inbound	Outbound	Total
AM Peak	35	15	50
PM Peak	55	45	100

Peak Level Of Service:

	2011				2028**			
	Background		Developed		Background		Developed	
Intersection	AM	PM	AM	PM	AM	PM	AM	PM
Nyberg Rd & I-5 SB	C	C	C	C	C	C	C	C
Nyberg Rd & I-5 NB	B	B	B	B	B	B	B	B
Nyberg Rd & Nyberg Woods	B	B	B	B	C	C	B	C
Nyberg Rd & Nyberg Ln & 65th Ave	B	B	B	B	B	C	B	C
Nyberg Ln & 57th Ave	B	B	B	B	B	B	B	B
Borland Rd & 65th Ave	C	C	C	C	D	D	D	D
Borland Rd & 57th Ave	C	B	C	B	C	C	C	B
Borland Rd & Wilke Rd & 50th Ave	C	C	C	C	C	D	C	C
Site Access			B	B			B	B

***TDC 11.610 Transportation Goals and Objectives (2) (e) For development applications, including, but not limited to subdivisions and architectural reviews, a LOS of at least D and E are encouraged for signalized and unsignalized intersections, respectively.**

**** Year 2028 assumes all future developments outlined in TDC Chapter 11 are constructed.**

Average daily traffic on SW 57th Avenue is expected to increase by 3 to 5 percent (35 to 60 trips per day). Average daily traffic on SW 50th Avenue is expected to increase by around 8 percent (140 to 160 trips per day). Both are within the day-to-day fluctuation in daily traffic volume. Neither increase changes the character or intended purpose of the streets.

A prior preliminary traffic study for the former Nyberg Lodge Condominiums indicated that 15.7 acres were developable as RL with a maximum density of 6.7 lots/acre. With those assumptions, 105 single-family homes could be built. This would result in 1090 daily, 80 AM Peak, and 110 PM Peak trips.

The City disagrees with the premise that all 15.7 acres are developable due to approximately 10 acres undevelopable NRPO and almost 14.5 acres in the 100-year floodplain, and no area allocated to public streets. Single-family homes and public streets are required to be at least 1-foot above the 100-year floodplain. Balanced cut & fill is required in this floodplain, restricting the amount of developable area considerably.

The floodplain covers all except the southeast corner 50,000 square feet, which is not adjacent to SW Nyberg Lane. If a developer proposed to serve the areas using a public street, it would require a 50-foot width right-of-way with a length over 150 feet that ends in a 45-foot radius cul-de-sac to reach the area above the floodplain along with the requirement for a public water quality facility in a tract. The required right-of-way along with balanced cut and fill due to the street would reduce developable area to approximately 3 lots. PAR 04-03, Kowsloski, is a expired land use decision on this site that showed the plausibility of 6 lots if a private tract was used instead of a public street.

The above scenarios generate the following traffic:

# of Lots	AM Peak	PM Peak	ADT
3	3	4	29
6	5	7	58
CUP 09-01	50	100	1010
105	80	110	1090

Sanitary Sewer, Stormwater, & Water

For the future Architectural Review, downstream sizing for all public utilities will need to be evaluated by the developer for the change from residential to the proposed development. Any upsizing will be a requirement in the Architectural Review decision.

A public sanitary sewer line and easement exists in the southeast corner of the development. Tennis courts, fences, and a covered walkway will be proposed over this easement. No issues have arisen to eliminate this possibility, but a special agreement will need to be created prior to Building Permits for the future Architectural Review to allow the courts, fences, and covered walkway over the public easement.

Treated stormwater from this development is expected to be routed to the wetlands on the same lot, however a public stormwater line is available in SW Nyberg Lane. A Water Quality Permit, for the private treatment facility for stormwater, will be a requirement of the future Architectural Review. Stormwater conveyance to the wetlands will require no detention, but conveyance through public lines will require adequate capacity (appropriate detention or upsizing pipes as needed.) Water service is available from a public line in SW Nyberg Lane as well.

Flood Plain & NRPO

SW Nyberg Lane adjacent to this site has experienced flooding in the past. Additionally, FEMA is currently evaluating and will approve revised floodplain maps that reflect increases in floodplain area and elevation based on updated data. Both the current potential for flooding and change in floodplain mapping are independent of any development.

A portion of this development that includes tennis courts is shown within the 100-year floodplain. A requirement of the Architectural Review will be to obtain a Flood Hazard Area Development Permit that includes balanced cut & fill, for no rise of the floodplain. Comments addressing the NRPO restrictions will be within the future Architectural Review that includes feedback from the Parks Department.

Please let me know if you have questions, ext 3035.

Letter #1

-----Original Message-----
From: Julie Sepp <jlsepp@hotmail.com>
To: Doug Rux
Sent: Wed Mar 25 18:30:51 2009
Subject: Nyberg Lane/Tennis Club

Mr. Doug Rux,

Per our previous conversation regarding the application by the Zupancic Group for a conditional use permit, please consider this my written letter to the City of Tualatin in regards to the Nyberg Lane property development.

If the City of Tualatin finds a reason why the conditional use permit should be allowed, I please ask that a fifty foot setback from the residential property line be enforced and that the hours of operation be limited to 8:00 a.m. to 8:00 p.m. Here are my reasons why:

The negative impact that a tennis club would have on the traffic and safety of children in our neighborhood is a major concern. The developer proposed that the "Stafford Hills Tennis Club" would be hosting tournaments and special events which will result in hundreds of cars coming and going. This means that cars will park along the streets of our neighborhood during these events, decreasing the visibility and increasing the chances of an accident, especially for children crossing the road.

This project will have a very negative impact on noise pollution and the impact will be felt during very early hours of the morning and late in the evening when most residents and families are trying to sleep. The hours of operation for the proposed tennis club is a huge concern!! There will be several tennis club employees arriving to work as early as 4:30 a.m., with members arriving shortly after that. According to the developer's proposal, the employees will be parking in the stalls farthest from the club, which is along our fence line. This will create loud noise such as car engine noise, doors and trunks slamming and horns honking from drivers double clicking their lock button on their keyless entry remotes to make sure that their cars are secure. The disruption of sleep will have a negative effect on the health and well being of neighboring residents.

Allowing a large business to be developed on property where the city intended for single family homes, will negatively impact the character of our neighborhood and the value of our home. I am also concerned about the potential risk of water contamination, the effects on the water table and how the displaced water will effect the neighboring properties. This project will have a huge negative impact on light pollution, sewer services, and harm to wildlife, including the death of many large beautiful mature trees.

I am counting on our City Council members to consider the negative impact this project will have on the neighboring residents and surrounding area. Again, if the City of Tualatin finds a reason why the conditional use permit should be allowed, I would please ask that a fifty

foot setback from the residential property line be enforced and that the hours of operation be limited from 8:00 a.m. to 8:00 p.m. Thank you in advance for your consideration.

Sincerely,

Julie Sepp
Mother of Four
19065 SW Mobile Pl
Tualatin, OR 97062
503/454-0326

Letter #2

April 13, 2009

To: Doug Rux, Community Development Director, The City of Tualatin
From: Janice Dove, Fox Hills Resident, 19135 SW Mobile Pl., Tualatin OR 97062
Re: Jim Zupancic Racquet & Fitness Club Proposal at 5916 SW Nyberg Lane, Tualatin

Dear Mr. Rux,

When Mr. Zupancic informed a small group of local residents about his "Plan B" being indoor tennis courts instead of the prior condo project plan, we were elated. He described and drew the concept on a drawing board. The indoor courts would be away from the residences, the noise would be contained inside since they're indoor courts, that a small number of parking spots would be needed and located away from the residences, and that there may be an outdoor pool but it would be more of a lounging pool. The Application he submitted to the City is quite different than how the concept was portrayed to us. I now have concerns about the large scale project and effects on neighboring residences.

1. **Water Runoff**. Almost all the 5+ buildable acres will be covered by buildings, pool, outdoor courts and parking lots. Where is all the water runoff going to drain or soak in? I'm afraid this will make the flooding problem on Nyberg Lane worse and affect the homes along the northeastern property line.

2. **Large Trees**. From the concept plan drawings and talking with Mr. Zupancic about the necessary grading of the land, I surmise many of the old large trees will be removed. Even though he plans to plant new trees in other areas, these replacement trees cannot compare to the loss of the existing huge trees. These tree canopies provide food & homes for birds/small animals, provide noise blocks from traffic on I-5 & 65th, create visual barriers for the neighborhood residents to other commercial buildings, and the trees soak up water runoff from the hillside.

3. **Setbacks**. The plan stresses the 195' setback to the indoor tennis building, but does not address the Activity Center and Tennis Alley which are shown to be very close to our back

fence. These are commercial sized buildings and the setbacks should be considered in the same manner as the indoor tennis building.

4. **Noise Pollution**. This is an area where his submitted plan vastly differs from his initial Plan B talks with us. Please keep in mind the neighboring properties already have distant noise pollution from I-5 and 65th Street traffic. The added noise from the large scale indoor and outdoor facility will exacerbate the noise pollution problem.

a) *Parking Lot:* The parking lot is once again positioned along the neighbor's fence line. The minimal proposed 10' buffer will not mitigate the noise of car doors/trunks closing, electronic key locking sounding, patrons chatting as they walk to and from the courts, and the continual engine noise (and fumes) of cars starting and leaving the facility. With 126 parking spaces planned, Mr. Zupancic is expecting a high volume of vehicles, which creates constant noise pollution.

b) *Pool:* From listening to the neighborhood meeting, I believe Mr. Zupancic said the pool will be a 25 yard lap pool with 6 lanes. In his application he talks about offering swimming lessons and local competitive swimming with other clubs. This is not being designed as a "lounging pool" and will instead generate a lot of outside noise.

c) *Tennis Courts:* The indoor courts are being designed so that large roll-up doors will be opened to bring the outside in, during warmer weather. This will allow the noise/light to go out at the same time, basically making them all outdoor tennis courts. Having continual ball bouncing noise and people talking loudly will disturb the neighbors and peaceful park areas throughout the day/night.

d) *Kids Playground:* The outdoor playground located directly behind the neighbor's houses will generate an unacceptable amount of continuous noise.

If the city accepts the application, please consider amending his plan to include the following conditions or changes that would help mitigate my concerns:

- **Increase Setback/Barrier to 50'.** This includes all buildings, pool, parking lot, and any outdoor activity areas. Since this land is being developed for a commercial use, I strongly feel he needs a larger setback from the existing residences. This will also save more of the large trees that are near the fence line.

- **Set Hours of Operations for Outdoor Activities from 8:00am – 8:00pm.** If the noise from outdoor activities (swimming, playground, outdoor tennis, doors up from the indoor courts) can be reduced, only the parking lot noise will be left.

- **Move Noisy Areas away from Residences or Cover them.** This includes playground, pool and outdoor courts. Also, only allow the roll-up doors on the indoor tennis courts to be opened when needed for cleaning up the debris from any flooding. This restriction will also prevent the many birds that live in the area from flying into the building and getting trapped.

I can see how the majority of the neighborhood would find a high-end tennis club an asset to the community. I'm not flat out opposed to a tennis club being built there, but I have issues with the enormity of it and those affects. This land is zoned Low-Density Residential and the proposed plan in essence is for building and operating a small business (60 employees) with high customer turnover. Being that our home and four others are adjacent to this 5 acre recreational facility, our homes will be automatically devalued since losing the qualities that made our house appealing when we chose this one. We paid more money for this house over many others in Fox Hills because of the privacy, low-level noise, open views of the wetlands/park and the serenity this gave us.

Thank you for your time and careful consideration of the impacts before approving the Application as it's written. With conditions, it could be an acceptable plan.

Letter #3

From: DOUG RASMUSSEN [mailto:lilrass@msn.com]
Sent: Tuesday, February 24, 2009 6:25 PM
To: Doug Rux
Subject: New Tennis Club

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I don't think this is good for our neighborhood. More traffic on Nyberg Lane, We already have people using it as a drag strip from the stop sign at 57th west. I think 4-6 homes would add more to our community than a business that drives wildlife away. I live next to the proposed project. I have seen as many as 4 Ducks killed crossing the street at one time. I here people honking there horns at the ducks as they cross because they are in a heary. If people have court time and think the animals are in there way will they run them over sense most don't live in the area will not care. We lose 10-12 animals in the street now and now we want to add to it. PLEASE THINK ABOUT OUR NEIGHBORHOOD AND NOT DEEP MONEY POCKETS.

Thanks for your conciderations.
Doug Rasmussen
19025 SW Mobile Pl.

Other Letters Received:

From: JJ Thomas [mailto:jj@specialtyheating.com]
Sent: Monday, February 23, 2009 7:59 AM
To: Doug Rux
Subject: Stafford Hills Racquet Club

Drux: My husband and I have been associated with the Clackamas River Racquet Club for many years. Mainly because this was the only club available in our area. We are SO EXCITED about the prospect of this new club and feel that it would have HUGH SUPPORT from this area. Our hope is that it passes with FLYING COLORS!

Janice R. Thomas
Sales & Marketing
Specialty Heating & Cooling, Inc.
(503) 620-5643

-----Original Message-----
From: Greg McCarty [mailto:gregbizz@earthlink.net]
Sent: Tuesday, February 24, 2009 4:14 PM
To: Doug Rux
Subject: Stafford Tennis facility

A new tennis facility sounds great. While it's not a public facility, I hope it won't be priced so that only wealthier tennis players can afford a membership. I'm not poor, but can't afford Club Sport or Mountain Park prices. I'm assuming that membership cost has been discussed. Is that info available to the public? I sure don't see any mention of it anywhere on the developer's website. If I knew the membership cost will be in the range of middle income folks, I'd be more likely to support it.

Thanks,
Greg McCarty

From: timothy catlin [mailto:timcat812@hotmail.com]
Sent: Tuesday, February 24, 2009 9:26 PM
To: Doug Rux
Subject:

Dear Gentlemen:

I understand that you are considering approving a conditional use permit for the proposed Stafford Hills Racquet and Fitness Club. I urge you to approve such an enriching and valuable new business and service for your community and surrounding cities such as W. Linn where we reside. We certainly need to continue to promote solid family values and good health through recreational sports and fitness facilities. Please give this your most serious due diligence and thought. Our country and all its past glory needs healthy adults

and a young new generation that can rise to the challenges of today and the future and sports certainly is a very useful means of ensuring these values to the benefit of all!! Tim Catlin...W. Linn

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From: R. Lewis [mailto:newhopeinvestments@qwestoffice.net]
Sent: Wednesday, February 25, 2009 9:46 AM
To: Doug Rux
Subject: Conditional Use Hearing

Mr. Rux, I strongly urge the City of Tualatin to approve the Conditional Use Application to establish th Stafford Hills Racquet and Fitness Club.
What a great boon that would be to our community. Thank you , Richard Lewis

---

From: Pat Brink [mailto:pat.brink@biotronik.com]
Sent: Thursday, February 26, 2009 9:38 AM
To: Doug Rux
Subject: New Club

This is very exciting news--please keep Tim and I informed.

Patricia Brink
Micro Systems Engineering, Inc.
6024 S.W. Jean Road
Lake Oswego, OR 97035
Phone: (503) 635-4016 x1177
email: pat.brink@biotronik.com

From: Jeff Hamilton [mailto:jeff.hamilton@webfootss.com]
Sent: Tuesday, February 24, 2009 4:56 PM
To: Doug Rux
Subject: new tennis center

I think the addition of another indoor tennis club in the area would be a great benefit to the community.
Thanks,

Jeff
Jeff Hamilton - Managing Partner
Webfoot Software Solutions, llc.
503-245-5864

From: Kelly Robertson [mailto:kellyr@laneinternational.com]
Sent: Wednesday, February 25, 2009 8:48 AM
To: Doug Rux
Subject: New Tennis Club

This will be the best thing that has ever happened to Tualatin. You pull this off you will be a hero.

From: Sherry Palmer [mailto:sphygiene1@yahoo.com]
Sent: Wednesday, February 25, 2009 6:56 PM
To: Doug Rux
Subject: Proposed Stafford Hills Racquet & Fitness Clud

To whom it may concern,

My husband, Bruce Johnson, and I would like to inform you of our support for this proposed facility. We would like to be of help in furthering this project.
Please feel free to contact if we can be of any help.

Sincerely,
Sherry Palmer & Bruce Johnson
West Linn

From: Kit Kohler [mailto:kitkohler@comcast.net]
Sent: Wednesday, February 25, 2009 11:44 AM
To: Doug Rux
Subject: Stafford Club

Mr. Rux,

My wife and I have always felt this community needed an indoor recreational facility of some sort. We are excited about the oppty to join a place where our family can go and enjoy working out, swimming, general activities, meet other familiies, etc.

Hopefully, the facility would be reasonably priced for families (versus places like Club Sport).

Regards,

Kit and Stacey Kohler

From: Colleen Nicholson [mailto:colleen.tennis@gmail.com]
Sent: Sunday, February 22, 2009 11:13 AM
To: Doug Rux
Subject: Stafford Hill Club

This is a great idea. This area has needed another tennis club for years!!!!
Colleen

From: Azin [mailto:azinvanalebeek@mac.com]
Sent: Tuesday, February 24, 2009 10:10 PM
To: Doug Rux
Subject: Stafford Hills club

Dear Doug Rux,

It was with great pleasure that I read an article last week in the Lake Oswego Review discussing the tentative plans to build Stafford Hills Racquet and Fitness Club. As I understand the club would offer tennis and clubhouse facilities as well as a swimming pool. I have been searching for a club to meet these needs since our move here in 2003. I believe West Hills club offers both tennis and swimming but as I live close to the Stafford-Bergis intersection I have always believed the commute to West Hills would preclude me from using the club. The proposed location of the Stafford Hills club would be terrific for our family.

I hope you favorably consider their application.

Regards,

Azin van Alebeek
azinvanalebeek@mac.com

From: Bill Berry [mailto:bill@berrymediaworks.com]
Sent: Wednesday, February 25, 2009 1:37 PM
To: Doug Rux
Subject: Stafford Hills

Hi-
I just wanted to drop you a note in support of the new tennis club. I have been a member at Clackamas River for over 10 years and we have been in desperate need of an alternative (it is a pathetic club) but the only alternatives were too far away to be convenient. The facility sounds like it would be a wonderful addition to the community.
If you have any questions, please call.
Thank you-
Bill Berry
503-936-9422

From: Linn Beswick [mailto:linnbeswick@yahoo.com]
Sent: Thursday, February 26, 2009 8:25 AM
To: Doug Rux
Subject: STAFFORD HILLS

i'M BEEN A RESIDENT IN TUALATIN FOR 22 YEARS NOW. I've BEEN PLAYING TENNIS IN THE Pacific North West FOR HALF THE TIME. I WANTED TO TELL YOU THERE IS MUCH EXCITEMENT AMONG OUR LOCAL CLUBS (CRRC,EASTMORLAND,CHARBONNEAU AND LO) ABOUT THE "NEW TENNIS FACILITY OPENING UP IN TUALATIN. I'M SURE WITH THE ECONOMY THE WAY IT IS , YOU MUST ME NERVOUS ABOUT THIS ENDEAVOR. I'M HERE TO TELL YOU NOT TO WORRY. More PEOPLE HAVE TOLD ME THEY ARE PLANNING ON JOINING THEN THE THOUSANDS OF PEOPLE THAT WENT TO THE DAVIS CUP. I THINK PORTLAND FOUND OUT HOW BIG TENNIS IS HERE WHEN THE DAVIS CUP WAS BROUGHT TO OUR TOWN. THE JUNIOR PROGRAM ALONE IS HUGH, NOT TO MENTION THE OLDER TENNIS PLAYERS LIKE ME. MANY OF US PLAY OVER 15 HOURS A WEEK AND THAT DOES NOT INCLUDE OUR USTA MATCHES,CITY LEAGUE AND SENIOR TEAMS. ONE OF THE REASONS FOR THE EXCITEMENT OF LEAVING OUR OLD CLUBS IS THE POOR LIGHTING IN MOST FACILITIES (CHARBONNEAU'S IS THE BEST) I WANTED TO MENTION THAT WHEN IT COMES TO PUTTING IN YOURS. (KEY ITEM).

BEST WISHES TO THE FUTURE OF YOUR CLUB.
LINN BESWICK

From: Diana Miller [mailto:miller.dte@comcast.net]
Sent: Wednesday, February 25, 2009 8:34 PM
To: Doug Rux
Subject: Stafford Hills Racquet and Fitness club

We have lived in Lake Oswego for nine years now and are extremely excited at the prospect of this kind of club in our area. We are "captive" members at MPRC and offer our total support of this project and hope it gets final approval from the city of Tualatin.

Diana & Bernie Miller

From: steve [mailto:sc_block@comcast.net]
Sent: Wednesday, February 25, 2009 6:19 PM
To: Doug Rux
Subject: Stafford Hills Racquet and Fitness Club

Dear Mr. Rux-My name is Steve Block and as a resident of Lake Oswego, I have never been as excited as I am with the potential building of the new Stafford Hills Racquet and Fitness Club. As a long time fitness enthusiast, a facility of this kind is not only needed in our community but will bring jobs, prosperity and a facility that we all can be proud of. Let's get this baby rolling and make our community proud to have such a great place for family and friends to workout and feel better about themselves. I appreciate your time Mr. Rux.

ATTITUDE IS EVERYTHING!!!!!!!!

STEVE

From: Chris Wohlers [mailto:chrisw@wohlersenvironmental.com]
Sent: Wednesday, February 25, 2009 7:50 AM
To: Doug Rux
Subject: Stafford Hills Racquet and Fitness Club

Mr. Doug Rux: I understand that you are involved in the decision making associated with the proposed Stafford Hills Racquet Club. I am currently a member at the Mountain Park Racquet Club (MPRC) and am following the development and progress of the Zupancic plans. I have heard only positive response regarding the Zupancic's commitment to quality and family tennis, and a significant number of my fellow members at MPRC are considering joining the new club. My belief is that the proposed facility will be very well received in the community and that it will serve an important role in providing opportunities for Tualatin residents for tennis and associated activities.

Please contact me if you wish to discuss, or for other applicable reasons.

Yours,

Chris Wohlers

Christopher C. Wohlers, President
Wohlers Environmental Services, Inc.
7440 S.W. Hunziker Street, Suite C
Tigard, Oregon 97223
503.670.1344 (telephone)
503.670.1701 (fax)

From: Linda Clayton [mailto:linda@claytonemail.com]
Sent: Wednesday, February 25, 2009 5:55 PM
To: Doug Rux
Subject: Stafford Hills Racquet Club

Dear Mr Rux-Add this note to what I expect is a growing number of positive reactions to news of a potential new tennis facility. It would be a boon for the City of Tualatin as well as

for the many tennis & fitness enthusiasts in the area. I believe the city should whole-heartedly back this project. Regards, Linda Clayton

---

From: dave polito [mailto:dave@harmonyroadmusic.com]
Sent: Wednesday, February 25, 2009 11:41 AM
To: Doug Rux
Subject: stafford hills raquet club

Its not often that our community has the chance to get an opportunity to add to the community through private funding such as the building of the proposed Stafford hills raquet club...With the lack of public funding interest in such a project, I emplore you to do everything in your power to move this proposal forward.
We sorely need a new tennis facility in this region.

Sincerely,

Dave Polito
Wilsonville Oregon

From: Rich Reiner [mailto:richreiner@comcast.net]
Sent: Wednesday, February 25, 2009 9:17 PM
To: Doug Rux
Subject: Fw: Stafford Hills Tennis Club

Mr Rux,

I'm writing you to encourage you to approve a conditional use permit for the new Stafford Hills Tennis Club. It's been over 35 years since a new tennis club has been built in the Portland area. The sport of tennis has grown immensely in recent years, and current clubs are overwhelmed. I'm excited about the possibility of a new club, and it obviously means more jobs and a boost for the local economy of Tualatin. Please expedite all approvals, and let's get our economy rolling again. Thanks.

From: Jim Feeney [mailto:jim.feeney@comcast.net]
Sent: Tuesday, February 24, 2009 5:04 PM
To: Doug Rux
Subject: Stafford Hills Tennis Club

Hi Doug,

I am a long time member of Mountain Park tennis club and I wanted to take a minute to say that I support the new Stafford Hills Club. There are very few public tennis facilities in the Lake Oswego area.
The public facilities at parks and schools can not really support the game like a membership facility does especially during the wet winter months.

We really need some new alternatives.

Players get taken advantage of because of the lack of any new facilities in this growing area for over twenty years.

Stafford Hills will be great for families in and around the community and there's plenty enough new members available for added capacity in the area.

Thanks,
James Feeney
Lake Oswego

From: Tom Meier (cassiroo%40comcast.net) [mailto:cassiroo@comcast.net]
Sent: Tuesday, February 24, 2009 4:54 PM
To: Doug Rux
Subject: Stafford Hills Tennis Club

Mr Rux,

I'm writing you to encourage you to approve a conditional use permit for the new Stafford Hills Tennis Club. It's been over 35 years since a new tennis club has been built in the Portland area. The sport of tennis has grown immensely in recent years, and current clubs are overwhelmed. I'm excited about the possibility of a new club, and it obviously means more jobs and a boost for the local economy of Tualatin. Please expedite all approvals, and let's get our economy rolling again. Thanks.

From: Jim Harrop [mailto:harropconsulting@comcast.net]
Sent: Wednesday, February 25, 2009 8:31 AM
To: Doug Rux
Subject: Stafford Hills Tennis Club

Mr. Rux,

I'm writing you to encourage you to approve a conditional use permit for the new Stafford Hills Tennis Club. It's been over 35 years since a new tennis club has been built in the Portland area. The sport of tennis has grown immensely in recent years, and current clubs

are overwhelmed. I'm excited about the possibility of a new club, and it obviously means more jobs and a boost for the local economy of Tualatin. Please expedite all approvals, and let's get our economy rolling again.

Thanks,

-jim

From: Willee Broberg [mailto:willeebus@yahoo.com]
Sent: Tuesday, February 17, 2009 4:19 PM
To: Doug Rux
Subject: support of statfford hills

the community of west linn/tualatin is in need of more pools ii would propose part of the approval hinge on allowing west Linn HS swim team which currently does not have a "home Pool" be allowed to practice at this new facility

i am in favor of this facility

Willee Broberg
Fitness Consultant
ACE Certified Personal Trainer
503-888-5372
www.teamlivefit.com

From: Scott Schroeter [mailto:woodcraftinteriors@me.com]
Sent: Sunday, March 01, 2009 2:32 PM
To: Doug Rux
Subject: New Stafford hills tennis club

I would like to voice my support for this new tennis Club proposal. I will continue to study the plan in the next few months, Please send me any information that you have on this issue.
thank you Doug.

Scott Schroeter
Woodcraft Interiors Inc.
503-636-0783

From: darcymoore@comcast.net [mailto:darcymoore@comcast.net]
Sent: Sunday, March 01, 2009 3:05 PM
To: Doug Rux
Subject: Stafford Hills Tennis Club

Hi Doug-just a note to lend support for the approval of the new Stafford Hills Tennis Club. Our community deperately needs more tennis courts as it is nearly impossible to get court time in this area. Thank you, Darcy and Mike Moore 503-635-4456

From: Doug Rux
Sent: Tuesday, March 31, 2009 8:28 AM
To: Will Harper; TONY DORAN
Subject: Fw: Stafford Hills

-----Original Message-----
From: debbie <debbie.reiss@comcast.net>
To: Doug Rux
Sent: Tue Mar 31 08:24:48 2009
Subject: Stafford Hills

Doug,

As long time Tualatin and Fox Hill residents, we couldn't be more excited about this project. This club will be in my back yard basiclly, I have NO reservations about this project. It will only enhance our property values and neighborhood. Can't wait to join.

Thank you, Mike and Debbie Reiss

CUP-09-01
ATT H
Comment Letter
II

From: Angela Wrahtz <angela.wrahtz@comcast.net>
To: Doug Rux
Sent: Tue Apr 14 19:50:06 2009
Subject: Concerns about Zupancic's application

April 14, 2009

To: Mr. Doug Rux, Community Development Director, The City of Tualatin
From: Angela Wrahtz, Fox Hills Resident, 19155 SW Mobile Pl., Tualatin OR 97062

Re: Zupancic's Tennis Club Proposal for property located at 5916 SW Nyberg Lane, Tualatin

Dear Mr. Rux,

I have concerns about Mr. Zupancic's large scale project and potential damaging effects on my property value and quality of life and that of the neighboring residences. The application he submitted to the City is quite different than the initial concept. Zupancic wishes to optimize the buildable portion of the property almost straight up to the fence-line, which makes sense for him, but will harm quality of life and resale values for all the other fence-line neighbors. I will lay out my problem with the plan and offer some amendments or conditions that I'd like the City to enforce below.

In a nutshell, the problem is essentially one of buffers, setbacks, transitional space, and/or adequate barriers between a large-scale business operation and a higher-end residential subdivision.

Specifically, there are 4 areas of concern:

1. Irreplaceable Mature Trees & Visual Barrier. Discussions with Zupancic about the necessary grading of the land suggest that many large, old large trees will be removed. New trees in other areas will not replace the existing trees some of which are several hundred years old and frankly irreplaceable. The tree canopies provide, besides their natural beauty, a living environment for birds/small animals, good noise blocks from traffic on I-5 & SW 65th, and excellent visual barriers for the neighboring residents. Their root systems aid in absorption of rain and water runoff from the hillside. Eliminating certain trees creates a problem that leaving them there solves.

2. Reasonable Setbacks and Transition Space. The plan stresses the 195' setback to the indoor tennis building, but does not address the activity center and tennis alley which are shown to be very close to my back fence. These are commercial sized buildings and the setbacks should be considered in the same manner as the indoor tennis building. A small barrier of 10 feet is completely inadequate to provide a transition from a lovely residential neighborhood to a commercial enterprise.

3. Noise Pollution & Quality of Life. This is an area where Zupancic's submitted plan vastly differs from his initial talks with us. When I purchased my property at a premium for the exceptional privacy and quiet of my lot, I expected at some point to lose some tranquility due to the possible development of the adjacent property. I did not expect to completely lose the peacefulness you'd expect in a higher end residential subdivision. The noise from Zupancic's large scale indoor and outdoor facility will eliminate any possibly of quiet outdoor barbeques in the summer or any lounging on my deck to read a book. The noise pollution problem will come from these things:

a) Parking Lot: The parking lot is once again positioned along the fence line. The minimal proposed 10 foot buffer will not mitigate the noise of opening/closing car doors and trunks, electronic key locking sounding, patrons chatting as they walk to and from the courts, and the continual engine noise (and fumes) of cars starting and leaving the facility. With 126 parking spaces planned, Mr. Zupancic is expecting a high volume of vehicles, which creates constant noise pollution.

b) Pool: At the neighborhood meeting, Mr. Zupancic said the pool would probably be a 25 yard lap pool with 6 lanes. In his application he talks about offering swimming lessons and competitive swimming with other local clubs. This is NOT a "lounging pool" and will instead generate a lot of outside noise. Granted, the entire community will be happy to flock to this new recreational asset in the summer, and the voices of the merry will carry. What compensation is there for those of us who lose peace and quiet while the entire community benefits?

c) Tennis Courts: The indoor courts are being designed so that the roll up doors open to bring the outside in during warmer weather. This will allow the noise/light to go out at the same time, basically making them outdoor tennis courts. The sound of hitting balls will be a stressful drumbeat, hard to ignore.

d) Kids Playground: The outdoor playground located directly behind the neighbors' houses will generate an unacceptable amount of continuous noise. I love kids but did not choose to live next to a park or daycare business. I moved into a residential community and wish for the character of that to be maintained.

4. Water Runoff and Flooding. Almost all of the 5+ buildable acres of Zupancic's property will be covered by buildings, pool, outdoor courts and parking lots. Where is all the water runoff going to drain or soak in? My concern is there will be a flooding problem on Nyberg Lane and also along the properties on the northeastern property line.

If the City chooses to accept Mr. Zupancic's application, then please recognize the City's obligation to protect the rights of residents and consider placing conditions on his plan to include the following changes which would help mitigate the above concerns:

- Increase Setback/Barrier/Transition Space/Buffer to 50 Feet. This includes all buildings, pool, parking lot, and any outdoor activity areas. Since this land is being developed for a commercial use, a larger setback from the existing residences is absolutely necessary and appropriate. The large trees that are near the fence line which would be retained by this approach would contribute positively to creating the kind of buffer or transitional space that is needed to preserve a good visual and provide for quiet.

- Limit Hours of Operations for Outdoor Activities from 8am – 8pm. If the outdoor activities noise (swimming, playground, outdoor tennis, doors up from the indoor courts) can be reduced, only the parking lot noise will be left.
- Relocate and/or Enclose Noisy Facilities Away from Residences. This includes playground, pool and outdoor courts. Aren't there are 15+ acres to contemplate?

In summary, I can see how the majority of the neighborhood would find a high-end tennis club an asset to the community. I also appreciate the complexity and challenge of building on this particular tax lot. I'm not completely opposed to a tennis club being built there, but I have issues with the enormity of it and potential damaging affects to quality of life and property values.

The property in question is zoned Low-Density Residential while the proposed plan in essence is for building and operating a small business (60 employees) with high customer usage which creates a conflict of interest. Being adjacent to this 5 acre recreational facility will necessarily devalue my property's resale value. If I choose to move now, I will have to disclose to any potential buyer Zupancic's plans to develop which would drive away any buyer, unless I sold my property for $100,000 below market value. After construction begins, I will be unable to sell my property. After the tennis club goes in, I will have to settle for selling my property at a reduced value to the rest of the neighborhood because nobody chooses to live next to a noisy commercial operation if they have other choices, which they always do.

Zupancic seems to think that just because the larger community will appreciate having a new recreational opportunity that, therefore, the fence-line neighbors should love it, too. How can we if we endure significant, concrete, tangible losses? Let's mitigate those.

Please carefully consider the negative impacts before approving the Zupancic's application as it is currently written. With certain required improvements/conditions to the plan, it could be an acceptable to all of us.

Thank you very much.

For conditional use approval the city should require this designation and the deeding of the remaining property on Nyberg lane to the city or to another entity that will guaranteed it's status as a designated preserve. This should not be left to a good faith arrangement or promise by the developer.

4. Swimming Pool

The location of this complex on the east side of the development with the closest possible proximity to residential properties creates the maximum noise pollution for the residents. It also potentially creates a significant chemical safety and health hazard for Fox Hill residents.

The Pool complex should be moved to the West Side of the property. This new location will reduce the noise pollution and help reduce the hazard potential.

5. Water treatment

It's assumed that chlorine will be used as the water treatment method for this complex. The hazard of chlorine leaks from swimming pool complexes are well documented. Chlorine is a deadly gas that does not readily disperse into the atmosphere. The proximity of this pool to residents of Fox Hill creates a safety and health hazard.

Relocating the pool to the west side of the property begins to reduce the risk. Secondly, TVF&R should be contacted to advise the city and the developer on the requirements of an Emergency Evacuation Plan for the area in the event of a Chlorine leak from the complex.

6. Overall Environmental/Sustainability requirements

Finally, with respect to the many unique aspects of this commercial development (i.e. build next to a wetlands and in a residential area) I would believe it important to the city to insure this project meet the highest level of environmental standards. One way to insure this would be to require that the developer meet the "2009 Platinum Leed" standard for new building construction.

Thank you for your consideration in this matter.

I look forward to hearing your thoughts about these concerns and how they can best be addressed.

Mark Coolican
19050 SW Mobile Pl
Tualatin, OR 97062

home 503-692-2064
cell 269-569-8428

From: CoolicanM1@aol.com [mailto:CoolicanM1@aol.com]
Sent: Sunday, April 19, 2009 12:05 PM
To: Doug Rux
Cc: lou.ogden@juno.com
Subject: Zupancic's proposal "Plan B"

Doug,

As a resident of Tualatin and SW Mobile Pl, I want to raise the following concerns and offer some options as requirements for granting conditional use for the property on Nyberg lane to the Zupancic development.

1. Property Buffer

The new plan "B" presented a 10 ft buffer between parking lot and SW Mobile property line. This is not sufficient to maintain the current type of neighborhood environment and living standard for homeowners on SW Mobile Pl and other Fox Hill properties.

In order to maintain the neighborhood living standard this buffer should be a minimum of 35 ft. This should be easily accepted by Zupancic. When this point was raised at the previous community meeting, Zupancic stated that the parking area would be for staff and not heavily utilized. With such usage it would be easy enough for Zupancic to put staff parking on the west side of the property and expand the buffer zone into the designated parking area.

Simply put a 10 ft buffer between a low density residential area and the commercial enterprise being proposed is not sufficient to maintain the current designated residential zoning for the Fox Hill area. The plan should contain specific requirements to minimize light and sound pollution with a green buffer that clearly delineates and protects Fox Hill residential property.

2. Tree Canopy

The developer's plan also indicated an attempt to maintain as much of the canopy as possible. This proposal carries no commitment or guarantee to protect the mature tree canopy that exists on this property.

As a requirement for conditional use approval, our city should require that Zupancic replace any destroyed mature canopy with trees of equal canopy level. This will insure that Tualatin continues it's designation as a "Tree City".

3. Wet Land Designation/Protection

Zupancic's new Plan B has withdrawn the commitment to deed this remaining acreage to the city as a protected wetland/wildlife preserve.

From: Gretchen McCallum [mailto:rothmccallum@msn.com]
Sent: Saturday, April 18, 2009 11:32 AM
To: Doug Rux
Subject: Please support the Stafford Hills Racket and Fitness Club

Hi Doug,

As an avid tennis player, I can attest to the fact that the Portland Area is lacking tennis facilities. The Stafford Hills Racket and Fitness Club is a tremendous idea and my hat's off to the developer for changing his plans from a high end Apartment Complex to a Top Rated Fitness Facility.

Tualatin is lucky to have a proposal of this kind in its area. I hope you vote in favor of it.

Sincerely,

Gretchen McCallum
1315 N. Oak Street
Canby, Oregon 97013
503-266-1197
Pager # 503-202-4537

From: carolyn.osmond@comcast.net [mailto:carolyn.osmond@comcast.net]
Sent: Monday, April 20, 2009 11:31 AM
To: Doug Rux
Subject: Stafford Hills Racquet and Fitness Club

Please consider this e-mail my registration for support of the proposed Stafford Hills Racquet and Fitness Club.

Carolyn Osmond
4140 Chapman Way
Lake Oswego, OR 97035
503-869-8592

From: Sally Ackley [mailto:AckleyS@wlwv.k12.or.us]
Sent: Monday, April 20, 2009 10:47 AM
To: DRUX@ci.tualatin.or.us.
Cc: angela.wrahtz@comcast.net; amgml55@verizon.net
Subject: Property across from Brown's Ferry Park

Doug,

We respectfully request that you halt the construction to the athletic club Jim Zupanic wants to construct across from Browns Ferry Park in Tualatin.

It will ruin what is left of the rural area of Tualatin. The extra Traffic it will bring, not to mention the construction traffic, will damage the wildlife future and be damaging to the property value of our neighborhoods.
We feel as taxpayers we pay more so we can enjoy more peace and good quality of life. More construction, permanent lighting, more traffic will destroy what we enjoy and try to preserve.

Thank you,
Joe and Sally Ackley
Fox Hill Park

Sally Ackley
Receptionist/
Applications

Administration Building
P.O. Box 35
West Linn, OR. 97068
503 673-7000
503 673-7001 Fax

ackleys@wlwv.k12.or.us

From: Bert Berends [mailto:bbci@comcast.net]
Sent: Sunday, April 19, 2009 7:34 PM
To: Doug Rux
Subject: Stafford Hills Raquet and swim club

My wife and I fully support the building and facility of the newly proposed Stafford Hills Racquet and Swim Club. We are avid and competitive tennis players and the growing need for a new club is reflected in the over crowding of our current club, Mountain Park Racquet Club. Please accord them the appropriate permits so this asset to the community becomes a reality.

Bert J Berends
BBCI
4282 Albert Circle
Lake Oswego, OR 97035
Phone: (503) 624- 1923
Cell (503) 729-4995
BBCI@comcast.net

From: Robbi Matarrese [mailto:rlmat@verizon.net]
Sent: Sunday, April 19, 2009 3:31 PM
To: Doug Rux
Subject:

Dear Doug,
We would very much like to offer support to the proposed Stafford Hills Racquet and Fitness Center. We are involved in tennis in the metro area and have know doubt this venture would be a great addition to the south end of the
metro area. We strongly feel this would be a positive addition to
the city in terms of revenue, community sponsorship and a positive business.
Please vote YES!!!

Respectfully,
Robbi and Vince Matarrese

Will Harper

To: Doug Rux

Subject: RE: Stafford Hills Racquet and Fitness Club-Tualatin

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From: Doug Rux
Sent: Friday, April 24, 2009 2:26 PM
To: Will Harper; TONY DORAN
Subject: FW: Stafford Hills Racquet and Fitness Club-Tualatin

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From: Greg and Barbara Fronczak [mailto:gfronz2@earthlink.net]
Sent: Friday, April 24, 2009 2:24 PM
To: Doug Rux
Cc: Angela Wrahtz
Subject: Stafford Hills Racquet and Fitness Club-Tualatin

Dear Mrs. Rux,

I am writing to you today to convey my concerns regarding the Stafford Hills Racquet and Fitness Club being proposed to be built in my neighborhood, Fox Hills.

I have serious concerns that this commercial business is entering our residential area. I have listed my main points below:

Hours of operation are 5:30am to 11:30pm which will create a nuisance to our neighborhood with service personnel and guests coming all day long

The view of 126 parking spaces from Nyberg lane is unacceptable.

The traffic will be constant all day long with frequent trips at every hour. It will create more traffic than the proposed 130 unit residential complex. As with this most leave in the morning and return in the evening. The traffic with this will be ongoing and create cutting through our neighborhood as well.

The destroying of this wetland and wildlife is not acceptable

The 10ft set back from the residences along Nyberg is unacceptable and there needs to be more adequate space between the two.

Major changes need to take place if the neighbors are to agree with this project.

I along with many neighbors will be attending the meeting on Monday, April 27th to voice our concerns about this project entering our neighborhood.

Sincerely,

Barbara Fronczak
19135 SW 52nd Court
Tualatin, OR 97062

RESOLUTION NO. _____

A RESOLUTION GRANTING A CONDITIONAL USE PERMIT FOR THE STAFFORD HILLS RACQUET & FITNESS CLUB AS A PRIVATE CLUB USE AND FOR ADDITIONAL BUILDING HEIGHT IN THE LOW-DENSITY RESIDENTIAL (RL) PLANNING DISTRICT AT 5916 SW NYBERG LANE (TAX MAP 21E19C, TAX LOT 900) (CUP 09-01).

WHEREAS a quasi-judicial public hearing was held before the City Council of the City of Tualatin on April 27, 2009, upon the application of Zupancic Group, requesting a Conditional Use Permit to allow 1. The Stafford Hills Racquet & Fitness Club (SHR&F Club) as a private club use in the Low Density Residential (RL) Planning District at 5916 SW Nyberg Lane; 2. Increased building height from the maximum 35 ft. in a RL Planning District to a height of up to 40 ft.; and

WHEREAS notice of public hearing was given as required by the Tualatin Development Code by mailing a copy of the notice to affected property owners located within 300 feet of the property, which is evidenced by the Affidavit of Mailing marked "Exhibit A," attached and incorporated by this reference, and by posting a copy of the notice in two public and conspicuous places within the City, which is evidenced by the Affidavit of Posting marked "Exhibit B," attached and incorporated by this reference; and

WHEREAS the Council heard and considered the testimony and evidence presented on behalf of the applicant, the City staff, and those appearing at the public hearing; and

WHEREAS after the conclusion of the public hearing the Council vote resulted in approval of the application [Vote _-_]; and

WHEREAS based upon the evidence and testimony heard and considered by the Council, the Council makes, enters, and adopts as its findings of fact the findings and analysis in the City staff report, dated April 27, 2009, marked "Exhibit C," attached and incorporated by reference; and

WHEREAS based upon the foregoing Findings of Fact, the Council finds that the applicant has provided sufficient evidence to demonstrate that all of the requirements of the Tualatin Development Code relative to a conditional use have been satisfied and that granting the conditional use permit is in the best interests of the residents and inhabitants of the City, the applicant, and the public generally.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF TUALATIN, OREGON, that:

Section 1. The City Council agrees with the staff report CUP-09-01 to allow a private club use and increase building height up to 40 ft. with the following conditions:

1. To ensure an adequate visual buffer between the Legacy Health Systems property to the proposed SHR&F Club outdoor/covered courts and indoor tennis building, the proposed club facility shall submit an Architectural Review plan that shows a buffer of evergreen and deciduous plantings on the south perimeter of the development area that extend from planter grade to 10 ft. in height to provide screening of the outdoor courts and include trees that will reach a minimum mature height of 30 ft. or more to provide a buffer to the indoor tennis building rooftop.

2. To ensure that the SHR&F Club buildings with the proposed increased building height is adequately buffered to the residences east of the site, the proposed athletic club facility shall submit an Architectural Review plan that shows a buffer of evergreen and deciduous plantings on the east perimeter of the development area that that extend from planter grade to a minimum height of 12 ft. and include trees that have a minimum planted size of 12 ft. or 3" caliper and will reach a minimum mature height of 30 ft. or more.

3. The SHR&F Club shall establish a parking management program that will restrict on-site parking before 8 am from parking stalls within 100 ft. of the SHR&F Club east property line.

4. Activities in the SHR&F Club buildings and on-site shall end by 10:00 p.m. and that the buildings and parking areas be closed by 10:30 p.m.

5. To ensure there is adequate on-site parking and to avoid spill-over parking onto neighboring residential streets, a Parking Management Plan for the SHR&F Club use shall be submitted with an Architectural Review application. The Parking Management Plan shall contain provisions for tournament and event parking that may include limits on attendance, mechanisms for restricting SHR&F Club visitor parking on public streets, and providing off-site parking in approved parking areas.

6. To ensure that outdoor lighting does not create glare to the adjoining public street, to the natural wetland to the west of the development area and onto adjacent properties, the proposed private club facility shall submit an Architectural Review plan that shows exterior building and site lighting will not shine or create glare in a manner that impairs the use of a property by residents or wildlife.

INTRODUCED AND ADOPTED this 27th day of April, 2009.

CITY OF TUALATIN, Oregon

By_____
Mayor

ATTEST:

By_____
City Recorder

APPROVED AS TO LEGAL FORM

Brenda L. Braden
CITY ATTORNEY

AFFIDAVIT OF MAILING

STATE OF OREGON)
) SS
COUNTY OF WASHINGTON)

I, Stacy Crawford, being first duly sworn, depose and say:

That on the 2nd day of April, 2009, I served upon the persons shown on Exhibit "A," attached hereto and by this reference incorporated herein, a copy of a Proposed Conditional Use Permit Notice of Hearing marked Exhibit "B," attached hereto and by this reference incorporated herein, by mailing to them a true and correct copy of the original hereof. I further certify that the addresses shown on said Exhibit "A" are their regular addresses as determined from the books and records of the Washington County and/or Clackamas County Departments of Assessment and Taxation Tax Rolls, and that said envelopes were placed in the United States Mail at Tualatin, Oregon, with postage fully prepared thereon.

Stacy Crawford

SUBSCRIBED AND SWORN to before me this 2nd day of April, 2009.

Notary Public for Oregon
My commission expires: 9/21/2011

OFFICIAL SEAL
CORTNEY RAE COX
NOTARY PUBLIC-OREGON
COMMISSION NO. 421300
MY COMMISSION EXPIRES SEPTEMBER 21, 2011

RE: CUP-09-01—CONDITIONAL USE PERMIT TO ALLOW FOR THE STAFFORD HILLS RACQUET & FITNESS CLUB AS A PRIVATE CLUB USE AND FOR ADDITIONAL BUILDING HEIGHT IN THE LOW-DENSITY RESIDENTIAL (RL) PLANNING DISTRICT AT 5916 SW NYBERG LANE (TAX MAP 21E19C, TAX LOT 900)

EXHIBIT A

Exhibit "A"

2 1E 19C 01200
Tualatin Senior Care, LLC
PO Box 3006
Salem, OR 97302

2 1E 19C 00200
City of Tualatin
18880 SW Martinazzi Ave.
Tualatin, OR 97062

2 1E 19C 01400
Meridian Park Hospital
19300 SW 65th
Tualatin, OR 97062

2 1E 19C 00700
Donald L. Waterman
18342 NW Gillihan Road
Portland, OR 97231

2 1E 19C 02000
Legacy Health System
1919 NW Lovejoy
Portland, OR 97209

Exhibit "A"

2 1E 19CA 010300
Thomas and Debra Conchuratt
19000 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010400
Doug and Kevan Rasmussen
19025 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010200
Mark Coolican
19050 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010500
Robert & Julie Sepp
19065 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010100
Kip and Laurel Aszman
19080 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010600
Marajen O'Neil
19095 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010000
William & Helene Sanders
19120 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010700
Robert Dove
19135 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010800
Walter & Angela Wrahz
19155 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010900
Michael & Deborah Reiss
19185 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 011000
Ryan White
19220 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 011100
Jake & Sarah Douglas
19260 SW Mobile Place
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2 1E 19CA 009900
Kyle & Theresa Petersen
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Jim & Laurie Harris
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PO Box 1606
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2S 1 24 DA 00100
Richard Reeves
15174 NW Troon Way
Portland, OR 97229

2S 1 24 DA 00800
The Randall Robert
9500 SW Barbur Blvd. Ste 300
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2S 1 24 DA 01200
Ani-Kal LLC
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2S 1 24 DA 01000
Meridian Medical Office, LLC
6711 SW Amber Lane
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2S 1 24 A 02601
Ken Hamilton
770 Tamalpais Drive 401-B
Corte Madera, CA 94925

2S 1 24A 02800
Forest Rim Vaf, LLC
8100 NE Parkway Drive Ste 330
Vancouver, WA 98662

2 1E 19C 00300
William Wilson III Management
Co., LLC
4 Embarcadero Center Ste 3330
San Francisco, CA 94111

Exhibit "A"

21E19C 09700
Gunnar Olson
19075 SW 57th Avenue
Tualatin, OR 97062

Exhibit "B"

City of Tualatin

www.ci.tualatin.or.us

NOTICE OF HEARING
CITY OF TUALATIN, OREGON

NOTICE IS HEREBY GIVEN that a public hearing will be held before the City of Tualatin City Council at **7:00 p.m., Monday, April 27, 2009**, at the Council Building, 18880 SW Martinazzi Avenue, to consider:

CUP-09-01—CONDITIONAL USE PERMIT TO ALLOW FOR THE STAFFORD HILLS RACQUET & FITNESS CLUB AS A PRIVATE CLUB USE AND FOR ADDITIONAL BUILDING HEIGHT IN THE LOW-DENSITY RESIDENTIAL (RL) PLANNING DISTRICT AT 5916 SW NYBERG LANE (TAX MAP 21E19C, TAX LOT 900)

In reviewing the conditional use the City Council must find that:

(1) The use is listed as a conditional use in the underlying planning district;
(2) The characteristics of the site are suitable for the proposed use;
(3) The proposed use is timely;
(4) The proposed use will not alter the character of the surrounding area in any manner that substantially limits, impairs, or precludes the uses of surrounding properties for the primary uses listed in the underlying planning district;
(5) The proposal satisfies those objectives and policies of the Tualatin Community Plan that are applicable to the proposed use.

All citizens are invited to attend and be heard upon the application. Failure of an issue to be raised in the hearing, in person, or by letter, or failure to provide sufficient specificity to afford the decision maker an opportunity to respond to the issue precludes appeal to the State Land Use Board of Appeals (LUBA) based on that issue. The failure of the applicant to raise constitutional or other issues relating to proposed conditions of approval with sufficient specificity to the decision maker to respond to the issue precludes an action for damages in circuit court.

Individuals wishing to comment may do so in writing to the Planning Division prior to the hearing and/or present written and/or verbal testimony to the City Council at the hearing. Hearings are commenced with a staff presentation, followed by testimony by proponents, testimony by opponents, and rebuttal. The time of individual testimony may be limited. If a participant requests, before the hearing is closed, the record shall remain open for at least 7 days after the hearing.

Copies of the applications, all documents and evidence relied upon by the applicant and applicable criteria are available for inspection at no cost and will be provided at reasonable cost. A copy of the staff report will be available for inspection at the City Library and Planning Division at least seven days prior to the hearing, and will be provided at reasonable cost. For information contact **William Harper, Associate Planner, at (503) 691-3027**. This meeting and any materials being considered can be made accessible upon request.

CITY OF TUALATIN, OREGON

By: Sherilyn Lombos
City Recorder

file: CUP-09-01

AFFIDAVIT OF POSTING

STATE OF OREGON)
) SS
COUNTY OF WASHINGTON)

I, Stacy Crawford, being first duly sworn, depose and say:

That at the request of Sherilyn Lombos, City Recorder for the City of Tualatin, Oregon; that I posted two copies of the Notice of Hearing on the 2nd day of April, 2009, a copy of which Notice is attached hereto; and that I posted said copies in two public and conspicuous places within the City, to wit:

1. U.S. Post Office - Tualatin Branch

2. City of Tualatin City Center Building

Dated this 2nd day of April, 2009.

Stacy Crawford
Stacy Crawford

Subscribed and sworn to before me this 2nd day of April, 2009.

Cortney Rae Cox
Notary Public for Oregon
My Commission expires: 9/21/2011

OFFICIAL SEAL
CORTNEY RAE COX
NOTARY PUBLIC-OREGON
COMMISSION NO. 421300
MY COMMISSION EXPIRES SEPTEMBER 21, 2011

RE: CUP-09-01—CONDITIONAL USE PERMIT TO ALLOW FOR THE STAFFORD HILLS RACQUET & FITNESS CLUB AS A PRIVATE CLUB USE AND FOR ADDITIONAL BUILDING HEIGHT IN THE LOW-DENSITY RESIDENTIAL (RL) PLANNING DISTRICT AT 5916 SW NYBERG LANE (TAX MAP 21E19C, TAX LOT 900)

EXHIBIT B

City of Tualatin

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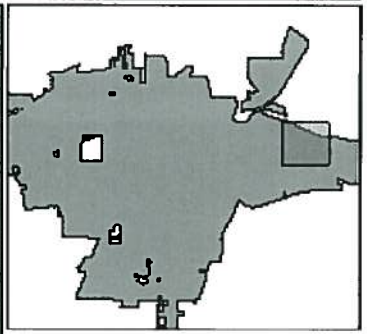
CITY OF TUALATIN, OREGON

By: Sherilyn Lombos
City Recorder

file: CUP-09-01

TualMap: Area of Interest Map



CUP-09-01

VICINITY MAP

Stafford Hills Racquet + Fitness Club

2 1E 19CA 010300
Thomas and Debra Conchuratt
19000 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010400
Doug and Kevan Rasmussen
19025 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010200
Mark Coolican
19050 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010500
Robert & Julie Sepp
19065 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010100
Kip and Laurel Aszman
19080 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010600
Marajen O'Neil
19095 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010000
William & Helene Sanders
19120 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010700
Robert Dove
19135 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010800
Walter & Angela Wrahz
19155 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 010900
Michael & Deborah Reiss
19185 SW Mobile Place
Tualatin, OR 97062

2 1E 19CA 011000
Ryan White
19220 SW Mobile Place
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2 1E 19C 00300
William Wilson III Management Co., LLC
4 Embarcadero Center Ste 3330
San Francisco, CA 94111

2 1E 19C 01200
Tualatin Senior Care, LLC
PO Box 3006
Salem, OR 97302

2 1E 19C 00200
City of Tualatin
18880 SW Martinazzi Ave.
Tualatin, OR 97062

2 1E 19C 01400
Meridian Park Hospital
19300 SW 65th
Tualatin, OR 97062

2 1E 19C 00700
Donald L. Waterman
18342 NW Gillihan Road
Portland, OR 97231

2 1E 19C 02000
Legacy Health System
1919 NW Lovejoy
Portland, OR 97209

ATTACHMENT F

CUP-09-01: ANALYSIS AND FINDINGS

The approval criteria of the Tualatin Development Code (TDC) 32.030 must be met if the proposed Conditional Use Permit for a private club use and increased building height is to be granted. The Applicants prepared a narrative that addresses the CUP criteria (Attachment D). Staff has reviewed the Applicants' material and included pertinent excerpts below.

1. The use is listed as a Conditional Use in the underlying planning district.

"Golf course, country club and private club" are a Conditional Use in the RL Planning District [40.030(4)(l)]. The proposed Stafford Hills Racquet and Fitness Club (SHR&F Club) is a "private club" that offers facilities, activities and services to a membership. As a membership tennis club that provides facilities for active athletic/recreation activities, tennis tournaments and events as well as personal health & fitness services, leisure and social activities including dining, member events and meetings, the SHR&F Club is similar to both a "golf course" and a "country club". The proposed SHR&F Club facility is a conditional use in the RL Planning District.

"Child day care center" is a Conditional Use in the RL Planning District [40.030(4)(e)].. The SHR&F Club application indicates the facility will include a "Kid's Club" supervised activity and child care for member families and guests and available when the member family is present on-site. This activity is consistent with member services offered by a private club, golf course or country club and allowed with those uses. At such time the child care service at the SHR&F Club facility are subject to licensing or certification as a child day center use available to non-members, conditional use permit approval will be required.

"Increased building height to a maximum of 75 feet, if all yards adjoining said building are not less than a distance equal to 1½ times the height of the building" is listed as a Conditional Use in the RL Planning District [40.030(4)(n)]. The applicant proposes an increase of structure height of the Tennis Building from the 35 ft. maximum allowed in the RL Planning District (TDC 40.100) to 38 ft. Staff recommends the additional height increase be to 40 ft. to allow for building and grade adjustments that may occur during the development process.

The private club use and increased building height are Conditional Uses in TDC 40.030(4)(l & n) listed above, meeting Criterion 1.

2. The characteristics of the site are suitable for the proposed use, considering size, shape, location, topography, existence of improvements and natural features.

EXHIBIT C

Size:	The SHR&F Club site is a 5 acre development area on the eastern portion of the 15.6 acre Tax Lot 900. The site is currently undeveloped except for a house and outbuilding located at the southeast corner of the property. No development is proposed on the approximately 10 acre western portion of the property. The proposed site plan shows the proposed buildings and outdoor improvements and required building setbacks, parking and landscaping will fit on the 5 acre development area. The site size is suitable for the use.
Shape:	The shape of the subject property and the development area is a rectangular lot and is suitable for the proposed use. Access to the SHR&F Club facility is via a primary driveway and a service/fire driveway from SW Nyberg Lane.
Location:	The site is located on the south side of SW Nyberg Lane and east of SW 65th Avenue in the RL Planning District. The vicinity of the site includes single-family residential development to the east (SW Mobile Place), the Meridian Park Hospital campus and vacant property adjoining on the south, an unoccupied child day care center on the west and the Stone's Throw Apartments and Brown's Ferry Park across SW Nyberg Lane to the north. (Vicinity Map A).
Topography:	The development area is low-lying, relatively flat while sloping south away from the creek and public street. The western portion of the property is the Nyberg Creek stream course with associated wetland that lie within the Tualatin River floodplain.
Improvements:	The existing site improvements include a house and small outbuildings.
Natural Features:	The 10 acre western portion of Tax Lot 900 includes Nyberg Creek and its associated wetland areas extending at the SW 65th Avenue bridge on the west to the SW Nyberg Lane culvert crossing on the north. TDC Map 72-1 designates the creek on Tax Lot 900 as part of the Nyberg Creek NRPO-CG Creek Greenway (Attachment B) The Nyberg Creek wetland on the property is designated a Wetland Preservation Natural Area NRPO-WPNA and the wooded upland on the south side of Tax Lot 900 and the adjoining Meridian Park Hospital property is designated Open Space Natural Area NRPO-OSNA. No development is proposed in the NRPO designated greenway, wetlands or open space. The plans show 3 wetlands (A, B & C) within the development area (Attachment D, Section 21) that are subject to a pending Wetland Fill Permit application filed by the applicant. The plans also show existing conifer and deciduous trees in the area around the existing house that will conflict with the proposed SHR&F Club development. Removal of the

existing trees will be addressed in the Architectural Review process.

The applicant describes the characteristics of the site in relation to location, site topography, the proposed development to the surrounding neighborhood and to the City at large. The applicant states, "Once constructed, the proposed Stafford Hills Racquet & Fitness Club will add a high quality, private athletic club on the eastern portion of the subject parcel." (Attachment D Section 5-Application Narrative, pg. 3).

The 2nd Submittal site plan shows the development area occupied by the 52,000 sq. ft. indoor tennis building, the attached 2-level Clubhouse, the 2-level Activity Center building, the 3 outdoor/seasonally covered tennis courts, the outdoor pool terrace and play area, surface parking for 131 cars, and landscaping. The 38-40 ft. parapet walls of the Clubhouse building are set back 195 ft. from the east property line and 125 ft. to the south property line and 165 ft. to the north property line which satisfy the setback standards for increased building height. If a tract is created for the CWS Vegetated Corridors on the west edge of the development area, the parapet wall of the Clubhouse wing will be setback approximately 180 ft. or more and meet the standard.

Parking and vehicular areas are shown and required (TDC 40.080) to be setback a minimum of 10 ft. to property lines, including the residential properties on the east. Vehicle access will be obtained from SW Nyberg Lane and a network of pedestrian paths is proposed connecting SHR&F Club with the Meridian Park Hospital campus, natural areas, and Brown's Ferry Park. Wetland mitigation and natural area enhancements are proposed on the adjacent Nyberg Creek wetland. The proposed private athletic club use and the requested increase in building height are shown in the application to be suitable for the site.

The applicant details how the SHR&F Club facility will fit on the site and is suitable for the use, citing the building and outdoor activity locations and setbacks in respect to the residential areas to the east, buffering of the larger building and outdoor activity areas to adjacent properties and SW Nyberg Lane, the separation of the access from other developments and streets and retaining the 10 acre natural wetland and creek area on the western portion of the property (Attachment D-Section 5 Application Narrative, pp. 1-8).

Email messages/letters from Julie Sepp and Janice Dove, neighboring residents on SW Mobile Place (Attachment H), both raise concerns about the potential for noise disturbances in early morning and late hours that may occur when locating employee parking near the residences adjoining the SHR&F Club east property line. The Applicant's March 26, 2006 letter and the 2nd Submittal Site Plan (Attachment D Section 21) shows the proposed relocation of the Activity Building to provide a buffer between the club's outdoor activity areas and the residences to the east and a reconfiguration of parking away from the east side of the drive aisle to stalls facing the building. Location of parking in this area is acceptable, but as a measure to avoid the potential for early morning and late evening noise associated with employee or member arrival/departure activity, parking can be restricted from stalls along the east of the site. Under the findings for Criterion #4, Staff recommends a parking

management plan specifying parking before 8 a.m. be restricted from parking stalls within 100 ft. of the SHR&F Club east property line.

Given the features and improvements of the subject property listed above, and the condition of approval restricting parking from the east side of the parking before 8:00 a.m., it is concluded the characteristics of the site are suitable for the proposed uses.

Criterion 2 is met.

3. The proposed development is timely, considering the adequacy of transportation systems, public facilities and services existing or planned for the area affected by the use.

Public sewer and water facilities are available to serve the site and proposed use (Attachment G-Engineering Division Memorandum). The public and private sewer, water and stormwater facilities for the proposed SHR&F Club development will be evaluated and determined the Architectural Review Public Facilities decision.

Letter #2 from Janice Dove, a resident property owners adjoining the site on SW Mobile Place (Attachment H - Janice Dove Email Letter) submitted concerns about stormwater runoff from the site and its effect on flooding of SW Nyberg Lane. The Engineering Division Memo (Attachment G) responds that a Architectural Review Public Facilities Decision will apply the City's storm water and floodplain requirements that will designed to minimize the impacts of a development.

The site is adjacent to and takes access from SW Nyberg Lane, a Minor Collector (Cb) Street, which connects to the signaled intersection at SW 65th Avenue on the west. The submitted application included a traffic study (Attachment D, Kittelson & Associates, Inc. Stafford Hills Racquet & Fitness Club Traffic Impact Analysis).

The Engineering Division reviewed the Applicant's submitted Traffic Impact Analysis (TIA) that showed adequate capacity at the intersection of SW Nyberg Road/SW 65th Avenue/SW Nyberg Lane (LOS B/B for AM/PM Peaks, respectively) and seven other intersections in addition to the site access for the proposed SHR&F Club development (Attachment G). The table below shows the Site Trip Generation Summary based on a conservative estimate of traffic entering and leaving the site access on SW Nyberg Lane:

SHR&F Club Site	Entering Trips	Exiting Trips	Total Trips
AM Peak Hour	35	15	50
PM Peak Hour	55	45	100

The TIA estimates (using conservative ITE and comparative rates) that the proposed SHR&F Club development will generate up to 1,010 daily (weekday) trips, contributing 50 additional AM Peak Hour Trips and 100 PM Peak Hour Trips to SW Nyberg Lane.

The City Engineer generally agrees with the impact analysis (Attachment G-Memorandum) that the existing transportation improvements are adequate to support the proposed use.

The Engineering Division Memo reports the TIA estimates the average daily trip traffic on SW 57th Avenue is expected to increase by 3 to 5 percent (35 to 60 trips per day). Average daily traffic on SW 50th Avenue is expected to increase by around 8 percent (140 to 160 trips per day). Both are within the day-to-day fluctuation in daily traffic volume. Neither increase changes the character or intended purpose of the streets.

The Engineering Division prepared the following table to provide a comparison of the Peak Hour Vehicle Trips estimated for the proposed private club use to the vehicle trips possible for detached single family residential lots allowed as a permitted use in the RL Planning District. The most feasible comparison is the 6-lot subdivision, due to the presence of wetlands, floodplain regulations, Clean Water Services requirements and other constraints and the amount of developable land occupied by a public street. In a reasonable scenario of residential development under the permitted RL standards, the proposed private club development will increase the number of vehicle trips on SW Nyberg Lane.

# Single Family Residential Lots	AM Peak	PM Peak	Average Daily Trips
3 (w/ Public Street ROW) (Increased floodplain & water quality standards)	3	4	29
6 (5 acre development area w/ private Access Drive)	5	7	58
CUP-09-01	50	100	1010
***105** (all 15. 6 Acres of Tax Lot 900)	*80	*110	*1090

*Infeasible development scenario due to 10+ acres of unbuildable floodplain and wetland. This scenario was reported in previous traffic analysis for a withdrawn Plan Map Amendment application on Tax Lot 900.

Concerns about increased traffic on SW Nyberg Lane associated with the SHR&F Club were raised in comments by neighboring residents (Attachment H) and mentioned in the Criterion #4 analysis. The concerns are for neighborhood safety and for wildlife that frequent Nyberg Creek and Brown's Ferry Park and cross SW Nyberg Lane. The traffic study establishes that the streets and intersections that serve the subject property have capacity to support the SHR&R Club use. Safety of wildlife that stray onto a public street cannot be evaluated and is not germane to the Conditional Use Criteria.

Traffic generation from the Conditional Use will not limit, impair or preclude surrounding properties from primary uses allowed in this Planning District.

Based on staff review and analysis of the application, public facilities are available for the site are adequate for the proposed use and the development is timely.

Criterion 3 is met.

4. The proposed use will not alter the character of the surrounding area in any manner that substantially limits, impairs, or precludes the use of surrounding properties for the primary uses listed in the underlying planning district.

The subject territory is in the RL Planning District (Attachment B). Surrounding land uses are:

N:	RMH	(across SW Nyberg Lane) Stones Throw Apartments Brown's Ferry Park
E:	RL	Fox Hills #3 Residential Subdivision
S:	RL	Undeveloped (Tax Lot 2000, Former farm, now Legacy Health Systems property)
	MC	Legacy Meridian Park Hospital Campus
W:	RL	(Unoccupied) La Petite Child Care Center Building
	RML	Wetland (Across SW 65th Avenue)
	CO	Whitney Office Building (Across SW 65th Avenue)

The properties adjoining the south property line of the SHR&F Club site are both owned by Legacy Health Systems and are designated single-family residential (Tax Lot 2000) (RL, vacant) and Medical Center (MC)(Legacy Meridian Park Hospital campus). The western portion of the subject site includes the 10 acres Nyberg Creek wetlands on the property that the applicant proposes to enhance and not develop. The creek wetland adjoins the unoccupied childcare center. The vicinity to the north across SW Nyberg Lane is the Stones Throw Apartment complex and the public Brown's Ferry Park. The area to the east is designated RL and developed as a single-family residential subdivision and includes the abutting residential properties located on SW Mobile Place and accessed off of SW 57th Avenue. (Attachment B)

The applicant states, "The RL District is primarily a residential district. However the area to the east is essentially 'built out' and the area to the north is already reserved as parkland. The area to the south is owned by Legacy Health systems, and we understand that the hospital is preparing an application to have the vacant parcel (Tax Lot 2000) rezoned to 'Medical Campus' (MC)" designation. Thus, the only area potentially left for a large scale residential development is presumably not going to be residential, and the proposed use as a private athletic club is complimentary to medical

office and professional buildings" (Attachment D-Application Narrative, pg. 9). The applicant describes the access to the site (from SW Nyberg Lane), the proposed site and building design, expected traffic patterns from the east and west, on-site surface parking (131 spaces), the list of indoor and outdoor activities, the hours of operation (5:30 a.m. to 10:00 p.m.).

Area West and North. The proposed SHR&F Club facility as a private athletic club use and with a proposed building height increase to 40 ft. will not alter the character or preclude the uses in the areas to the west and north of the facility site. With the layout of the buildings and the site, the presence of the Nyberg Creek wetlands to the west of the development area and with the distances separating the SHR&R Club facility from the day care center, the apartments to the west/northwest and the Brown's Ferry Park to the north will not be limited or impaired.

Area South. The Legacy Health Systems property to the south is the site of the present Meridian Park Hospital campus with room for future development on the largely vacant Tax Lot 2000 in the RL Planning District. The property rises in an undeveloped slope from the SHR&F Club with trees and other natural vegetation and a former farm field on the east. The SHR&F Club site plan shows the parking, Activity Center building, pool terrace and the outdoor tennis courts (with seasonal cover) adjoining the south property line with landscaping and retaining walls that will provide an adequate buffer to the Legacy property. The tennis courts are shown with a 3 ft. setback and will likely have a perimeter net/fence to enclose the court area on the south. The indoor tennis courts building will have a 50,000 sq. ft. rooftop that will be at a lower elevation and visible from the existing and future Legacy Meridian Park Hospital campus and buildings. A visual buffer to the SHR&F Club building and outdoor facilities is necessary to avoid impairing the uses allowed in the MC or RL Planning District and meet Criterion 4. To ensure an adequate visual buffer between the Legacy Health Systems property to the proposed SHR&F Club outdoor/covered courts and indoor tennis building, the proposed club facility shall submit an Architectural Review plan that shows a buffer of evergreen and deciduous plantings on the south perimeter of the development area that extend from planter grade to 10 ft. in height to provide screening of the outdoor courts and include trees that will reach a minimum mature height of 30 ft. or more to provide a buffer to the indoor tennis building rooftop.

Area East. The SHR&F Club conditional use permit application site plan shows the facility parking area bordered by a 10 ft. wide landscape planter adjoining the single family residential home properties on the east side of the site. The Activity building is setback approximately 50 ft. from the east property line and screens the outdoor pool terrace to the residential properties on the east. The Clubhouse and Indoor Tennis Buildings are setback 195 ft. to the east property line and separated by the parking field and parking area landscaping. The applicant states, "As to the impact on the existing residential community, we have received numerous communications in support of this project from the adjoining neighborhood residents. We believe that the facility's

proximity will be a 'selling point' for marketing homes in these neighborhoods, and will act to help support property values. In any event, through careful consideration of setbacks, landscaping, and layout, the facility will not impair or negatively impact the existing residential uses." (Attachment D Section 5, pg. 9)

Minimizing the impacts of the private athletic club with increased building height and achieving compatibility with the existing residential area east of the site represents the primary challenge for the SHR&F Club facility in terms of meeting conditional use Criterion 4. While there have been supportive comments by Tualatin property owners that have been received in the conditional use process, three letters submitted by Fox Hills 3 residents that raise issues with the proposal were received and discussed below.

Letter #1 & #2. Resident property owners adjoining the site on SW Mobile Place (Attachment H - Julie Sepp & Janice Dove Email Letters) submitted concerns about early and late hours of operation, location of employee parking near residential property creating a potential for disruptive early morning/late evening noise, increase in traffic, and the potential for tournaments and events at the athletic club resulting in visitors parking on nearby residential streets. Janice Dove also was concerned about retaining larger trees on the SHR&F Club east property line as a buffer and concerns about noise from activities at the Kid's Play area, the outdoor pool and tennis courts. The Julie Sepp comment letter also stated:

> "Allowing a large business to be developed on property where the city intended for single family homes, will negatively impact the character of our neighborhood and the value of our home. I am also concerned about the potential risk of water contamination, the effects on the water table and how the displaced water will effect the neighboring properties. This project will have a huge negative impact on light pollution, sewer services, and harm to wildlife, including the death of many large beautiful mature trees." "I would please ask that a fifty foot setback from the residential property line be enforced and that the hours of operation be limited from 8:00 a.m. to 8:00 p.m. "

Janice Dove also requested conditions requiring a 50 ft. setback and restricting hours from 8:00 a.m. to 8:00 p.m. and asked that the proposed roll-up doors of the indoor tennis courts be kept closed except for cleaning and flood conditions.

Letter #3. A resident property owner adjoining the site on SW Mobile Place (Attachment H - Doug Rasmussen Email) submitted concerns about the SHR&F Club project causing more traffic on SW Nyberg Lane and a potential for harm to wildlife that frequent the creek and ponds and cross SW Nyberg Lane. The comment letter stated:

> "I don't think this is good for our neighborhood. More traffic on Nyberg Lane, We already have people using it as a drag strip from the stop sign at 57th west. I think 4-6 homes would add more to our community than a business that drives wildlife away."

The concerns raised in Letters #1, #2 and #3 about traffic impacts of the SHR&F Club are timeliness and public facilities issues that are addressed in the analysis of Criterion #3.

The proposed site plan and narrative show the Clubhouse and indoor tennis center buildings setback a minimum of 195 ft. from the residential areas to the east with 18 to 20 ft. trees on the planter along the site's east property line providing screening of the buildings. The Clubhouse is shown with a height of 38 ft. that if approved would meet the increase in building height setback standard for a conditional use. The applicant provides a diagram (Attachment D, Section 22) showing the viewing angles from 1st and 2nd floor windows in houses located east of the SHR&F Club site. The applicant states "As the diagram shows, trees from 18 to 20 ft. tall along the property line will effectively block the view of the proposed (Clubhouse) building, even from second story windows." (Attachment D Section 5, pg. 6)

The 2nd Submittal Site Plan shows the 2-story Activity Center Building located at the southeast corner of the site, providing a separation between the outdoor activity areas and the residential properties to the east. The Activity Center is setback approximately 60 ft. from the east property line adjoining the Fox Hills 3 residential properties. The plans and narrative do not specify screening between the Activity Center Building and neighboring residences. Neighbor comments raise the issue of the compatibility of a large facility in a residential area and the effect of larger trees on visual and noise buffers. Using setbacks and screening provides a means to buffer the uses and minimize impacts on the character of the residential areas to the east. To ensure that the SHR&F Club buildings with the proposed increased building height is adequately buffered to the residences east of the site and meet Criterion 4, the proposed athletic club facility shall submit an Architectural Review plan that shows a buffer of evergreen and deciduous plantings on the east perimeter of the development area that that extend from planter grade to a minimum height of 12 ft. and include trees that have a minimum planted size of 12 ft. or 3" caliper and will reach a minimum mature height of 30 ft. or more.

Letters #1 & #2 raise concerns about the proposed hours of operation of the SHR&F Club, asking to limit the hours from 8:00 a.m. to 8 p.m., and locating employee parking where there is a potential for disruptive early morning/late evening noise. The site plan shows the location of parking fields on the east side of the buildings which creates a separation between the buildings and residents to the east while putting some parking stalls and the activities of car occupants closer to adjoining residences. The applicant indicates the hours of operation will be from "5:30 a.m. to 10:00 p.m." and it can be expected that employees and members would be arriving and departing before and after the operating hours. Tournaments and events on the site will introduce the potential for late-hour activity in parking fields. In regard to the parking field issues, the applicant states "The noise generated by the club patrons and associated traffic is also a concern. We have routed the main traffic access (from SW Nyberg Lane) as far west

as possible (from the east property line) and will utilize the parking closest to the eastern property line (residential border) for staff parking."(Attachment D Section 5, pg. 6)

Staff agrees that locating buildings on the western portion of the development area and locating parking on the eastern portion is a suitable approach to site design, providing setbacks and separation between residential neighbors to the buildings and athletic club activity areas. In response to the concerns that early and late activity in the parking fields may be disruptive to residential neighbors and to meet Criterion 4, staff recommends establishing parking measures that will minimize impacts on neighboring residential uses. Staff recommends a condition of approval requiring the SHR&F Club to establish a parking management program that will restrict on-site parking before 8 am from parking stalls within 100 ft. of the SHR&F Club east property line. This allows member and staff parking in three rows of parking stalls near the Clubhouse/Tennis Building entrance (approximately 56 spaces) for the early morning tennis court times. With 7 indoor courts, the fitness center and practice alleys drawing patrons and an estimated 4-6 staff people on-site during the opening to 8 a.m. hours, the approximately 56 parking spaces are sufficient in consideration of the 1 stall per 1,000 s.f. minimum parking standard of TDC 73.370. This measure will reduce the potential for early morning disruptions by opening the remaining parking stalls including the stalls adjacent to the Activity Building that are closer to the residential properties after the 8 a.m. hour. Staff also recommends a condition of approval requiring that SHR&F Club activities in the buildings and on-site end by 10:00 p.m. and that the buildings and parking areas be closed by 10:30 p.m. The required closure hours will discourage, if not eliminate disruptive noise and activity in the athletic club's parking areas into the late evening hours. This will be especially important when tournaments and special events are held and there is a significant increase in the number of visitors and staff on the site.

Letter #1 also raised a concern about people parking on nearby residential streets while attending tournaments and events occurring at the proposed SHR&F Club. No information about the expected attendance of tournaments and events is provided in the application. The adjacent SW Nyberg Lane is classified a Minor Collector (Cb) and does not have on-street parking. A total of 131 on-site parking spaces are proposed and based on the proposed use and activities, the needed parking will be evaluated in the Architectural Review process. To ensure there is adequate on-site parking and to avoid spill over parking onto neighboring residential streets, staff recommends a condition of approval requiring submittal of a Parking Management Plan for the SHR&F Club use with an Architectural Review application. The Parking Management Plan shall include provisions for tournament and event parking that may include limits on attendance, mechanisms for restricting SHR&F Club visitor parking on public streets, and providing off-site parking in approved parking areas.

Letter #1 listed "light pollution" as a concern. The applicant responded (Attachment D Section 5, Page 6) to "...'glow' from the windows of the tennis building as well as lights

from automobile headlights shining into the back yard." The applicant indicates that headlights in the parking field will be screened by vegetation and fences. Features to reduce the exterior effects of interior lighting and windows will be included in the building design. No mention of exterior lighting of the courts, pool terrace, service area and parking is mentioned. The TDC [73.380(6)] requires parking, loading and pedestrian lighting that does not cause glare onto adjacent streets, natural areas and properties. This is evaluated in the Architectural Review process. To ensure that outdoor lighting does not create glare to the adjoining public street, to the natural wetland to the west of the SHR&F Club development area and onto adjacent properties and to meet Criterion 4, the proposed private club facility shall submit an Architectural Review plan that shows exterior building and site lighting will not shine or create glare in a manner that impairs the use of a property by residents or wildlife.

Approval of this Conditional Use application will allow the Zupancic Group to develop and operate the private athletic club facility on the site. Based on the applicant's submitted information, review by staff, comments by neighboring residents and the conditions of approval regarding planting buffers to adjoining Legacy Health properties and a residential area, parking restrictions for early morning activities, requiring submittal of a parking management plan and a lighting plan, it is concluded that the proposed SHR&F Club facility will not alter the character of the surrounding area in any manner which substantially limits, impairs or precludes the surrounding properties for the primary uses listed in the underlying Planning Districts.

Criterion 4 is met.

5. The proposal is consistent with plan policies.

The applicant surveys and analyzes a number of TDC objectives related to growth, commercial districts, transportation, natural areas, parks and recreation, concluding that the proposed private club use is suitable in this location, meets transportation objectives, increases recreation facilities in the City and provides protection of the Nyberg Creek wetland area on the property with opportunity for expanded park uses. (Attachment D-Section 5 Application Narrative, pp. 16-30). Consideration of the Oregon Statewide Land Use Planning Goals is also provided.

In a review of Tualatin Community Plan objectives for residential areas, for semi-public facilities and recreation uses in the TDC, Staff did not find objectives that apply to uses such as a private athletic club locating in a RL Planning District or a 5 ft. increase in maximum building height. The purpose and intent statement of the Conditional Uses Chapter 32.010 states:

> It is the intent of this chapter to provide a set of procedures and standards for conditional uses of land or structures which, because of their unique characteristics relative to locational features, design, size, operation, circulation

and public interest or service, require special consideration in relation to the welfare of adjacent properties and the community as a whole. It is the purpose of the regulations and standards set forth below to: (1) Allow, on one hand, practical latitude for utilization of land and structures, but at the same time maintain adequate provision for the protection of the health, safety, convenience and general welfare of the community and adjacent properties;..."

The SHR&FClub conditional use application proposes an athletic club use and operation and the proposed increase in building height that are intended to be compatible with nearby residential development and a site design that creates separation and buffering between the club facilities and nearby residential uses. Staff agrees with the applicant's narrative survey of various objectives and concludes that relevant policies in the TDC including buffering residential and natural resource areas from impacts by the proposed athletic club development and adequacy of public facility needs including transportation are satisfied.

The proposal is consistent with plan policies.

Criterion 5 is met.

Based on the application and the above findings and analysis and with the recommended conditions of approval listed below, the SHR&FClub Conditional Use permit application for a private athletic club use and an increase in building height to 40 feet meets the criteria of TDC 32.030.

Recommended Conditions of Approval:

1. To ensure an adequate visual buffer between the Legacy Health Systems property to the proposed SHR&F Club outdoor/covered courts and indoor tennis building, the proposed club facility shall submit an Architectural Review plan that shows a buffer of evergreen and deciduous plantings on the south perimeter of the development area that extend from planter grade to 10 ft. in height to provide screening of the outdoor courts and include trees that will reach a minimum mature height of 30 ft. or more to provide a buffer to the indoor tennis building rooftop.
2. To ensure that the SHR&F Club buildings with the proposed increased building height is adequately buffered to the residences east of the site and meet Criterion 4, the proposed athletic club facility shall submit an Architectural Review plan that shows a buffer of evergreen and deciduous plantings on the east perimeter of the development area that that extend from planter grade to a minimum height of 12 ft. and include trees that have a minimum planted size of 12 ft. or 3" caliper and will reach a minimum mature height of 30 ft. or more.
3. The SHR&F Club shall establish a parking management program that will restrict on-site parking before 8 am from parking stalls within 100 ft. of the SHR&F Club east property line.

4. Activities in the SHR&F Club buildings and on-site shall end by 10:00 p.m. and that the buildings and parking areas be closed by 10:30 p.m.
5. To ensure there is adequate on-site parking and to avoid spill-over parking onto neighboring residential streets, a Parking Management Plan for the SHR&F Club use shall be submitted with an Architectural Review application. The Parking Management Plan shall include provisions for tournament and event parking that may include limits on attendance, mechanisms for restricting SHR&F Club visitor parking on public streets, and providing off-site parking in approved parking areas.
6. To ensure that outdoor lighting does not create glare to the adjoining public street, to the natural wetland to the west of the SHR&F Club development area and onto adjacent properties, the proposed private club facility shall submit an Architectural Review plan that shows exterior building and site lighting will not shine or create glare in a manner that impairs the use of a property by residents or wildlife.

Approved By Tualatin City Council
Date April 27, 2009
Recording Secretary J Kirby

STAFF REPORT
CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

THROUGH: Sherilyn Lombos, City Manager

FROM: Paul Hennon, Community Services Department

DATE: April 27, 2009

SUBJECT: RESOLUTION AUTHORIZING RENAMING THE TUALATIN/DURHAM SENIOR CENTER TO THE JUANITA POHL CENTER

ISSUE BEFORE THE COUNCIL:
The Council will consider adopting a resolution to rename the Tualatin/Durham Senior Center to the Juanita Pohl Center at the request of the Tualatin/Durham Senior Center Steering Committee.

RECOMMENDATIONS:

The Tualatin Parks Advisory Committee (TPARK) reviewed the proposal with consideration of the requirements contained within Tualatin Municipal Code, Chapter 5-6, Memorials and Naming Policy, and recommends Council approve renaming the Tualatin/Durham Senior Center to the Juanita Pohl Center.

The Durham City Council supports and advocates for the proposed name change.

The staff respectfully recommends that the Council adopt the attached resolution renaming the Tualatin/Durham Senior Center to the Juanita Pohl Center.

EXECUTIVE SUMMARY:
The Tualatin/Durham Senior Center Steering Committee has requested that the name of the center be changed to the Juanita Pohl Center.

The Steering Committee has proposed the name change to increase use and participation of the programs and services available through the center by attracting

aging baby boomers who are now 50 years and older and frequently do not view themselves as "seniors." Also, the senior center building is used more like a community center in that people who are not seniors currently use it after hours and on weekends. Changing the name eliminates a barrier to participation by baby boomers and others in the community and reflects the broader role the facility plays in the community.

The Tualatin Municipal Code, Chapter 5-6, Memorials and Naming Policy governs the process and criteria for naming and renaming Tualatin parks and recreation facilities. The naming policy cites that the City intends that the name of a facility be the permanent designation and only under extreme or extraordinary circumstances shall facilities be renamed.

The Steering Committee has followed the required process, including submitting a written proposal to the TPARK and staff (Attachment A). The Steering Committee has presented this proposal to the Durham City Council and that Council has endorsed and advocates for the proposed name change (Attachment B).

The naming policy states that when evaluating proposals for naming and renaming facilities, there are two categories to consider: 1) Service and Non-monetary Contributions and 2) Financial Contributions. It also requires a staff recommendation.

While Juanita and Leonard Pohl made significant financial contributions to the community in support of youth and education through the Tigard/Tualatin School District prior to Juanita's passing away in 1998, the Steering Committee submitted this proposal in recognition of Juanita Pohl's extraordinary and remarkable volunteerism and leadership contributions to the mission and purpose of parks and recreation through her instrumental role in the early development of the center and its programs and operation for its first 16 years. In the words of the committee, *"The current success of the Center's programs for the community is a direct outgrowth of Juanita's leadership, planning and vision she brought forth in all her efforts on behalf of the Center."*

It is recommended that the name change become effective immediately, and that the City move forward with replacing signs and updating printed and web documents as quickly as funds and time allow. The Steering Committee will work closely with the City to promote and raise awareness of the new name.

FINANCIAL IMPLICATIONS:
The fiscal impact of this recommendation is expected to be minimal. There will be a cost of about $5,000 to update signs. There is the potential for some increase in building rental revenues since some renters, especially brides, do not want "senior center" listed on their wedding or reception invitations. This has been a disincentive to select the center for some events.

DISCUSSION:
The building is owned and maintained by the City of Tualatin, is operated through a partnership with Loaves and Fishes, the Meals-on-Wheels people, and serves the Tualatin-Durham area. The City of Durham provides a small financial contribution to the operation of the center. The strength of the center comes from the people who volunteer there on a daily basis. Last year, there were over 11,000 hours of dedicated and enthusiastic volunteerism in support of the center, equaling more hours than 5 full time employees.

The Steering Committee is committed to providing recreational, lifelong learning, nutritional, socialization and cultural services essential to the promotion and enhancement of personal well-being and a sense of belonging. The center is a place for people to gather, socialize, learn, relax, and to have fun in a welcoming and friendly environment.

The idea to eliminate the word "senior" from the name has been discussed by people at the senior center and staff on various occasions in recent years and follows state and national trends as communities rethink the traditional role and audience of the senior center and its approach to providing and promoting services and facilities to the whole community.

The Steering Committee has not taken the idea of changing the center's name lightly as a lot of pride and ownership has developed in the center since it first opened in 1982, almost 27 years ago. It has taken several years of thoughtful discussion and the work of a subcommittee to clarify the reasons for changing the name and to determine the specific name to propose.

The Steering Committee understands that the City intends that the name of a facility be the permanent designation and only under extreme or extraordinary circumstances shall facilities be renamed. The Steering Committee feels that the unprecedented demographic changes that are underway with baby boomers entering their 50's with a mindset that they are not "senior citizens", and thus not looking to senior centers as a place for them to find programs and services, is an extraordinary circumstance that warrants renaming the center in a manner that removes this barrier from their participation and use.

Renaming the center is only one of a number of initiatives to encourage greater use by people over 50. Change has been underway at the center in recent years and the programs and services continue to evolve and develop with the shifting community demographics. Whereas in past years, the noon meal was the peak use of the day, now many people use the center for health and recreational activities during the day and the evenings and do not eat a meal at the center. The Meals-on-Wheels program continues to provide a vital service.

There is an increasing emphasis on health and wellness, fitness, and active programs, as well as adjustments in the menu selection and presentation of meals. Creative arts, various forms of yoga, muscle strengthening, stretching, Tai Chi, and coaching to become Internet savvy on macs and pc's, join the more traditional quilting, cards, pool, and other drop-in and day trip activities. More than 100 people are enrolled in a fitness program that runs mornings and afternoons, and people are kicking up their heals in line dancing programs twice a week. Three Wii systems were recently installed with donated funds so participants can improve fitness and socialize while playing golf, tennis, bowling, skiing, ping-pong, and more.

Attachments:

A. Letter requesting name change from Tualatin/Durham Senior Center Steering Committee
B. Email supporting name change from City of Durham
C. Resolution

c: Members of the Durham City Council
Members of the Tualatin/Durham Senior Center Steering Committee
Members of the Tualatin Parks Advisory Committee (TPARK)
Joan Smith, Executive Director, Loaves and Fishes, Inc.
Paula Stewart, Tualatin/Durham Senior Center Manager
Roland Signett, Durham City Administrator

ATTACHMENT A

24 February 2009

Paul Hennon
Community Services Director
City of Tualatin
18880 SW Martinazzi Avenue
Tualatin, OR 97062-7092

Dear Mr. Hennon,

The purpose of this letter is to formally request a renaming of the Tualatin/Durham Senior Center to the Juanita Pohl Center pursuant to Section 5-6-030 of the Tualatin Municipal Code.

The Steering Committee for the Tualatin/Durham Senior Center is making this recommendation that the Center be named to honor Juanita Pohl in recognition of her remarkable service to this community through her contributions to the initial development and ongoing support of the Center.

Two members of the Center's Steering Committee, Del Judy, Council Representative (to Loaves and Fishes) and Joe Lipscomb, Treasurer meet earlier this month with the Durham City Council to discuss this matter and the Durham City Council voted in favor of the name change.

Juanita's contributions to the Center began before its existence as she was involved in the Center's genesis. She worked with Steve Rhodes, City Manager, City of Tualatin to obtain federal funding through the Community Development Block Grant Program by testifying before the Washington County Commissioners on behalf of the project. She and her husband Leonard visited other centers around the State to gather information and ideas to share with the Center's development group. Many of these ideas such as the open floor plan would end up being incorporated into the final design. During the expansion project in the early 90's, Juanita was once again directly involved with the design process and the idea she brought of an open floor plan held fast in the final design we enjoy today.

Back in the beginning after the initial ground breaking, Juanita began and would lead fundraising activities for the initial kitchen equipment, kitchenware, china, flatware, and other furnishings in the Center. She continued to lead the Center's annual fundraising activities through her involvement in the Tualatin Quilters.

From the beginning Juanita was an active member of the Senior Center and served on the Steering Committee. She was committed to the development and implementation of the Center's operational policies and procedures, budgeting and many of the other issues facing the new Center. She was especially involved with developing the Center's initial programs and activities as she served as the Chair of the Program Committee. The current success of the Center's programs for the community is a direct

outgrowth of Juanita's leadership, planning and vision she brought forth in all her efforts on behalf of the Center.

Juanita Pohl's service to the community of Tualatin through the Tualatin/Durham Senior Center deserves recognition. At this Center her initial ideas have blossomed and matured into the many that make up today's programs and activities and dovetail nicely with the stated mission and purpose of parks and recreation in the City of Tualatin; to foster the well being and health of every citizen. It would be most appropriate to acknowledge the extraordinary work of Juanita Pohl by changing the name of this building located in Community Park to the Juanita Pohl Center.

Submitted with Respect,

Stephen J. Ricker
Chair, Steering Committee
Tualatin/Durham Senior Center

ATTACHMENT B

From: Roland Signett [mailto:cityofdurham@comcast.net]
Sent: Wednesday, January 28, 2009 10:34 AM
To: Sherilyn Lombos
Subject: Senior Center

Sherilyn,
At last night's council meeting Joe Lipscomb and Del Judy presented the council with a proposal to change the name of the senior center. They were acting on behalf of the Board of Directors who wish to change the name from Tualatin-Durham Senior Center to the Juanita Pohl Center. After listening to the reasons for the change the Durham Council voted to "support and advocate" the name change. The one stipulation was that any postings to the Tualatin website or otherwise note that it serves the citizens of Tualatin and Durham.

I understand that this also is to go before the Tualatin Council within the next month. I would appreciate it if you would apprise your council of Durham's position.

Roland Signett
City Administrator
City of Durham, OR

RESOLUTION NO. 4879-09

RESOLUTION AUTHORIZING RENAMING THE TUALATIN/DURHAM SENIOR CENTER TO THE JUANITA POHL CENTER

WHEREAS the City of Tualatin owns the Tualatin/Durham Senior Center and the Senior Center Steering Committee has requested the building be renamed the Juanita Pohl Center; and,

WHEREAS the demographic make up of the Tualatin area is changing with the aging of many Baby Boomers who would benefit by the services and opportunities provided at the senior center for those aged 50 and over, but who do not view themselves as "seniors" and are thus reluctant to go to a senior center; and,

WHEREAS the senior center building is used more like a community center in that people who are not seniors currently use it after hours and on weekends and changing the name eliminates a barrier to participation by baby boomers and others in the community and reflects the broader role the facility plays in the community; and

WHEREAS there has been a state and national trend to name or rename senior centers without the use of the word "senior" in the title to attract and be more inclusive to all potential users; and

WHEREAS the Tualatin Municipal Code, Chapter 5-6, Memorials and Naming Policy governs the process and criteria for naming and renaming Tualatin parks and recreation facilities, the Steering Committee has followed the process, the Tualatin Parks Advisory Committee (TPARK) recommends renaming the building, and the Durham City Council has endorsed and advocates for the renaming of the center; and

WHEREAS the Steering Committee submitted this proposal in recognition of Juanita Pohl's extraordinary and remarkable volunteerism and leadership contributions to the mission and purpose of parks and recreation through her instrumental role in the early development of the center and its programs and operation for its first 16 years, and in the words of the committee, *"The current success of the Center's programs for the community is a direct outgrowth of Juanita's leadership, planning and vision she brought forth in all her efforts on behalf of the Center."*

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF TUALATIN, OREGON, that:

Section 1.

a. The Tualatin/Durham Senior Center shall be renamed to the Juanita Pohl Center.

b. The name change shall become effective immediately.

c. The staff is directed to move forward with installation of new signs and publicizing the name change through various means as funding and time allows.

INTRODUCED AND ADOPTED this 27th day of April, 2009.

CITY OF TUALATIN, OREGON

By _____
Mayor Pro tem

ATTEST:

By _____
City Recorder

Approved as to Form:

_____
City Attorney