



**CITY OF KIRKLAND**  
**Planning and Building Development Department**  
**123 Fifth Avenue, Kirkland, WA 98033 425.587-3600**  
**www.kirklandwa.gov**

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## **MEMORANDUM**

**To:** Planning Commission

**From:** Angela Ruggeri, AICP, Senior Planner  
Adam Weinstein, AICP, Deputy Planning Director

**Date:** December 5, 2018

**Subject:** Kirkland Urban – Proposed Modifications to Master Plan  
File Number CAM14-02188

### **Staff Recommendation**

- Receive a briefing on proposed modifications to the Kirkland Parkplace Mixed-Use Development Master Plan and Design Guidelines to accommodate Phase II of the Kirkland Urban development (see Attachment 1).
- Recommend that the Council approve the Master Plan changes.

### **Background**

The current Kirkland Parkplace Mixed-Use Development Master Plan and Design Guidelines was approved by the City Council on February 17, 2015 by Ordinance 0-4475. The project is currently known as Kirkland Urban and is located on an 11.5-acre parcel at the corner of 6<sup>th</sup> Street and Central Way. The Master Plan allows up to 620,000 square feet of office, 203,000 square feet of retail, fitness and entertainment uses, 352,000 square feet of residential uses (380 units) and a minimum of 75,000 square feet of pedestrian space including plazas, courtyards, gardens and an elevated terrace.

Section 5 of the Master Plan and Design Guidelines states that major modifications to the project, such as a reduction in open space, changes to locations of primary and secondary internal streets, and changes in allowed uses, must be reviewed for consistency with the Comprehensive Plan and require City Council approval. Kirkland Municipal Code 3.30.040 also states that the City Council must consult with the Planning Commission prior to amending the Master Plan and Design Guidelines.

The Planning Commission recommended and the City Council approved the following major modifications in 2017.

1. An increase in the number of proposed residential units from 300 to 380 units, and in residential square footage from 300,000 square feet to 352,000 square feet.
2. A reconfiguration of the internal street grid on the east side of the development.

**Project**

The City Council has now been asked by KPP Development LLC, the project proponent, to make amendments to the Master Plan, comprising an increase in building square footage from 1,175,000 square feet (sf) to 1,315,000 sf.

The existing office square footage would be increased from 620,000 sf to 744,655 sf and the Retail/Fitness/Entertainment category would be increased from 203,000 sf to 218,345 sf. The maximum residential square footage would remain at 352,000 sf, but the total number of residential units would be reduced from 380 units to 367 total units. The development standards and design guidelines in the Kirkland Parkplace Mixed-Use Development Master Plan and Design Guidelines and the regulations for height and massing in the Zoning Code will remain the same.

The requested changes are outlined in Attachment 1. Exhibit A to the letter in Attachment 1 includes the analysis of transportation impacts associated with the proposed changes to the project.

**Analysis**

These changes are consistent with the Comprehensive Plan, which designates the Kirkland Urban property as appropriate for commercial uses and also states that in the East Core Frame where Kirkland Urban is located, "Residential use should be allowed as a complementary use."

The changes are also consistent with the Planned Action Ordinance O-4473, which establishes a maximum "envelope" of project impacts – primarily vehicle trips generated during the most congested peak hour during the evening commute (PM peak). If project changes would generate more than the maximum number of PM peak vehicle trips (or other environmental impacts) identified in the Planned Action Ordinance, supplemental environmental review is required. Conversely, if project changes would generate less than the maximum number of vehicle trips (or other environmental impacts), additional environmental review is not required, and the project changes can be approved within the parameters of the approved Planned Action Ordinance. The maximum new net vehicular trips generated by the revised project would not exceed the 1,680 PM peak hour trips allowed in the Planned Action Ordinance (see Attachments 1 and 2 for the full traffic analysis). In addition, the revised project would not generate other environmental impacts beyond those identified in the Planned Action Ordinance. Therefore, the project changes may be approved without further environmental review.

In the adopted Master Plan and Design Guidelines, major modifications to the Master Plan are required to be reviewed by staff for consistency with the Comprehensive Plan and to be approved by the City Council. Kirkland Municipal Code 3.30.040 states that the City Council shall consult with the Planning Commission prior to amending the Master Plan and Design Guidelines. The Planning Commission's recommendation on this proposal will be taken to the City Council on January 15, 2019.

The proposed square footage increases are expected to impact Phase II of the Kirkland Urban Development. The design of Phase II will be reviewed by the Design Review

Board (DRB) in 2019 after the City Council has made a decision on the proposed changes to the Master Plan. The Kirkland Parkplace Mixed-Use Development Master Plan and Design Guidelines will be used by staff and the DRB in their review of the project design.

Any additional access or circulation improvements identified in the Planned Action ordinance will be reviewed by staff and the DRB when the complete Phase II proposal is received. Required parking supply and modifications to the Transportation Management Plan and Parking Management Plan will also be reviewed when detailed square footage and design information is submitted to the City by the applicant.

#### **Public Comment**

Public comment will be taken at the Planning Commission meeting on December 13, 2018. No comments have been received at this time.

#### **Environmental Review**

Staff will prepare an Addendum to the Planned Action EIS to document that the modification proposal would not generate vehicle trips (or other project impacts) that exceed the maximum thresholds evaluated in the Planned Action EIS Addendum. This Addendum will be based in part on the traffic analysis in Attachment 1.

#### **Attachments:**

1. Letter from William Leedom dated December 4, 2018
2. Public Works Department's Review of Kirkland Urban Trip Generation Analysis



December 4, 2018

Angela Ruggeri, Senior Planner  
City of Kirkland Planning and Building Department  
123 Fifth Avenue  
Kirkland, WA 98033

Re: Kirkland Urban Master Plan Modification

Dear Angela:

This follows up on our recent meeting with City staff. As indicated in that meeting, KPP Development LLC would like to request approval of a “major modification” to the Master Plan.

The change for which approval is requested is to increase the total development size of the Kirkland Urban Master Plan from 1,175,000 sf to 1,315,000 sf. The increase in square footage would allow an additional 140,000 sf in commercial use (Commercial office would be increased to 744,655 sf and Retail/Fitness/Entertainment would be increased to 218,345 sf). The number of residential units would be reduced to 367, but the residential square footage would remain the same. This change is consistent with the Comprehensive Plan, Land Use Code, and Planned Action Ordinance.

**Comprehensive Plan.** The Comprehensive Plan Figure LU-1 designates the Kirkland Urban property as Commercial. The proposed change is consistent with the Comprehensive Plan.

**Land Use Code.** The Land Use Code, at Section 50.38, identifies office as an allowed use. With amendment of the Master Plan, the proposed change will be consistent with the Land Use Code.

**Planned Action Ordinance.** Ordinance 4473 (“PAO”), Section 3.D.1(a), sets forth thresholds to be used to determine if a site-specific development proposal is contemplated by the Planned Action and has had its environmental impacts evaluated in the Planned Action EIS Addendum. The Planned Action EIS Addendum that was the basis of the PAO analyzed a proposal with a total of 1,175,000 sf. Section 3.D.1(b) of the PAO provides that if future proposals exceed this maximum development parameter, “further environmental review **may** be required” (emphasis added). Such environmental review is discretionary with the City.

Section 4 of the PAO identifies the number of net new vehicle trips reviewed in the Planned Action EIS Addendum: 1,680. It states that “development proposals that exceed the maximum trip levels” evaluated in the Planned Action EIS Addendum “**will** require additional SEPA review” (emphasis added). In such a case, it will be mandatory for the City to conduct environmental review.

In this case, as demonstrated in the attached Heffron Transportation Technical Analysis (attached as Exhibit A), a proposed addition of 140,000 SF of commercial uses at Kirkland Urban will not exceed the development threshold set forth in the PAO. The analysis indicates that combined with the planned mix of non-commercial uses, 140,000 sf of additional commercial use could be occupied without exceeding the 1,680 PM peak hour trips defined as the threshold in the City of Kirkland February 2015 SEIS analysis.

Accordingly, under Section 4 of the PAO, no additional SEPA review is **required**. The City will need to evaluate, however, whether it deems it appropriate **in its discretion** to require additional environmental review. , Since this modification to the Master Plan will not result in an increase to the net new trips threshold analyzed in the PAO EIS Addendum, KPP Development respectfully asks the City to exercise its discretion and **not** require additional SEPA review.

**Master Plan.** The Master Plan, at page 8, identifies a maximum office buildout of 620,000 sf, and a total project buildout of 1,175,000 sf. The proposed Master Plan modification is for a maximum office buildout of 744,655 sf, a maximum Retail/Fitness/Entertainment buildout of 218,345 sf, and a total of 367 residential units, with a total project buildout of 1,315,000 sf. Accordingly, to be consistent with the Master Plan, it will be necessary to modify page 8 of the current Master Plan. Attached as Exhibit B is a revised page 8 that reflects this proposed modification.

With the submission of this information, we respectfully ask that this matter be placed on the City Council's forthcoming agenda for consideration. Please call if you have any questions. We very much appreciate your courtesy and assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "William Leedom", with a stylized flourish at the end.

William Leedom

cc: Bill Pollard  
Jim Neal  
Bret Jordan  
Rich Hill

# TECHNICAL MEMORANDUM

Project: Kirkland Urban

Subject: Trip Generation Estimate – Proposed Master Plan Buildout

Date: October 15, 2018

Author: Jennifer Barnes, PE *QAB*  
Marni Heffron, PE, PTOE

This memorandum presents the methodology and assumptions used to estimate trips generated by the proposed Master Plan buildout program for the Kirkland Urban development.

## 1. Project Description

The proposed project program is summarized in **Table 1**. The proposal previously evaluated in the *SEPA Addendum to the Downtown Area Planned Action Ordinance EIS 2008 & Related SEPA Document*,<sup>1</sup> which supports the adopted Planned Action Ordinance (PAO),<sup>2</sup> is provided for comparison.

Table 1. Kirkland Urban – Proposed Buildout under Master Plan

| Land Use Type<br>(ITE Code) | Proposed Buildout<br>under Master Plan <sup>1</sup> |                              | Analyzed for<br>SEPA Addendum <sup>2</sup> |                              |
|-----------------------------|---|------------------------------|--|------------------------------|
|                             | Size (sf)   | Units Applied to<br>Analysis | Size (sf)                                  | Units Applied to<br>Analysis |
| General Retail (820)        | 50,411  | sf                           | 88,000                                     | sf                           |
| Residential (220)           | 352,000   | 367 units                    | 300,000                                    | 300 units                    |
| Office (710)                | 744,655   | sf                           | 650,000                                    | sf                           |
| Restaurant (932)            | 44,789  | sf                           | 53,000                                     | sf                           |
| Supermarket (850)           | 55,251  | sf                           | 54,000                                     | sf                           |
| Movie Theater (445)         | 53,839 <sup>3</sup>                                 | 496 seats                    | ---  | ---                          |
| Daycare (565)               | 14,055  | 170 students                 | ---  | ---                          |
| Health Club (492)           | ---   | ---                          | 30,000                                     | sf                           |
| Total                       | 1,315,000   | ---                          | 1,175,000                                  | ---                          |

sf = square feet

1. Source: Talon Private Capital, LLC, September 2018.

2. Source: City of Kirkland, *SEPA Addendum to the Downtown Area Planned Action Ordinance EIS 2008 & Related SEPA Documents*, February 2015.

3. Size of planned theater includes a 12,150-sf mezzanine.

<sup>1</sup> City of Kirkland, February 2015.

<sup>2</sup> City of Kirkland, Ordinance O-4473, adopted February 17, 2015.



## 2. Trip Generation for Proposed Project

The number of trips generated by the proposed buildout program was determined using the recommended methodology in the Institute of Transportation Engineers (ITE) current *Trip Generation Handbook*.<sup>3</sup> ITE recognizes that development projects located in urban environments generate fewer trips than those in suburban settings. The new *Handbook* states:

*Most data presented in the Trip Generation Manual data volumes [sic] are vehicle-based and have been collected at low-density, single-use, suburban developments with little or no transit service, limited bicycle access, and little or no convenient pedestrian access. These sites are called **baseline** sites because they are the starting points for vehicle trip generation estimation.*

*The analyses needs to adjust baseline vehicle trip generation estimates to correctly estimate trip generation for a site*

- *Surrounded by compact urban development;*
- *Consisting of a mix of complementary land uses;*
- *Served by public transit;*
- *That attracts walking and bicycling trips;*
- *That prices on-site parking; and*
- *In an area with high vehicle occupancy as a result of an area-wide transportation demand management program or preferential treatment for ridesharing.*

With expected parking and transportation demand management measures applied to the proposed project (and documented in the *Transportation and Parking Management Plan*<sup>4</sup> that has been developed for the site) almost all of these attributes apply to the Kirkland Urban site; therefore, the following approach recommended in the *Trip Generation Handbook* was used to estimate trips for each mode of travel:

1. Estimate the baseline vehicle trips using data from the *Trip Generation Manual*.<sup>5</sup> It should be noted that for consistency with the previous analysis, the estimates presented in this memorandum are based upon rates and equations from the 9<sup>th</sup> Edition of the *Trip Generation Manual*. For all land uses included in the Kirkland Urban program, application of 10<sup>th</sup> edition rates and equations would result in peak hour trip estimates that are the same or lower than those based upon the 9<sup>th</sup> edition.
2. Convert the baseline vehicle trips to baseline person trips using baseline mode shares and vehicle occupancy rates for each land use (note, baseline vehicle occupancy rates are those inherent in the ITE rates).
3. Determine the appropriate mode of travel and vehicle occupancy for the subject site based on its characteristics and context.
4. Calculate person trips by mode of travel using the local mode of travel factors for the site.
5. Convert the person trips by vehicle into adjusted vehicle trips using the local vehicle occupancy rates for the site.

<sup>3</sup> Institute of Transportation Engineers, *Trip Generation Handbook*, 3<sup>rd</sup> Edition, August 2014.

<sup>4</sup> City of Kirkland, File Numbers BNR-07652, BNR16-00391, BNR16-01620, and BMU16-04332.

<sup>5</sup> Institute of Transportation Engineers, *Trip Generation*, 9<sup>th</sup> Edition, 2012.





## Baseline Trip Generation Factors

**Table 2** summarizes the baseline trip generation rates, equations and average vehicle occupancy (AVO) factors used to estimate the proposed project's person trips.

Table 2. Baseline Trip Generation Rates, Equations and AVO Assumptions

| Land Use (ITE Land Use Code)   | ITE Baseline Trip Generation Equation or Rate <sup>a</sup> | Baseline Average Vehicle Occupancy (AVO) |
|--|--|--|
| <b>Apartment (220)</b> – Dwelling units located within the same building with at least three other dwelling units.   |  |  |
| Daily  | $T = 6.06(X) + 123.56$                                     | 1.20 <sup>b</sup>                        |
| AM Peak Hour   | $T = 0.49(X) + 3.73$                                       | 1.20 <sup>b</sup>                        |
| PM Peak Hour   | $T = 0.55(X) + 17.65$                                      | 1.20 <sup>b</sup>                        |
| <b>Multiplex Theater (445)</b> – A multiplex movie theater consists of audience seating, a minimum of 10 screens, a lobby and refreshment area. All theaters in the category show first-run movies, and may also have matinee showings. Multiplex theaters have a higher vehicle trip rate than smaller theaters with matinees, so this category was assumed because it would provide the highest vehicle trip rate. |  |  |
| Daily  | 12.9 * PM peak rate <sup>c</sup>                           | 2.00 <sup>d</sup>                        |
| AM Peak Hour   | 0.0 trips/seat   | 2.00 <sup>d</sup>                        |
| PM Peak Hour   | 0.10 trips/seat  | 2.00 <sup>d</sup>                        |
| <b>Daycare (565)</b> – A facility where care for pre-school age children is provided, normally during the daytime hours. Daycare facilities generally include classrooms, offices, eating areas and playgrounds.   |  |  |
| Daily  | $T = 4.79(X) - 33.46$                                      | 1.00 <sup>e</sup>                        |
| AM Peak Hour   | 0.80 trips/student   | 1.00 <sup>e</sup>                        |
| PM Peak Hour   | $\ln(T) = 0.88\ln(X) + 0.27$                               | 1.00 <sup>e</sup>                        |
| <b>Office (710)</b> – A location where affairs of businesses, commercial or industrial organizations or professional persons or firms are conducted.   |  |  |
| Daily  | $\ln(T) = 0.76\ln(X) + 3.68$                               | 1.10 <sup>f</sup>                        |
| AM Peak Hour   | $\ln(T) = 0.80\ln(X) + 1.57$                               | 1.10 <sup>f</sup>                        |
| PM Peak Hour   | $T = 1.12(X) + 78.45$                                      | 1.10 <sup>f</sup>                        |
| <b>Retail (820)</b> – Group of commercial establishments that may include uses such as traditional retail stores, banks, post offices, recreational uses, and others.  |  |  |
| Daily  | $\ln(T) = 0.65\ln(X) + 5.83$                               | 1.20 <sup>g</sup>                        |
| AM Peak Hour   | $\ln(T) = 0.61\ln(X) + 2.24$                               | 1.20 <sup>g</sup>                        |
| PM Peak Hour   | $\ln(T) = 0.67\ln(X) + 3.31$                               | 1.20 <sup>g</sup>                        |
| <b>Supermarket (850)</b> – Free standing retail store selling a complete assortment of food, food preparation and wrapping materials, and household cleaning items. They may also contain additional products or services including ATMs, automobile supplies, bakeries, books and magazines, dry cleaning, floral, greeting cards, limited service banks, photo centers, pharmacies or video rental.                |  |  |
| Daily  | 102.24 trips/1,000 sf                                      | 1.00 <sup>e</sup>                        |
| AM Peak Hour   | 3.40 trips/1,000 sf  | 1.00 <sup>e</sup>                        |
| PM Peak Hour   | 9.48 trips/1,000 sf  | 1.00 <sup>e</sup>                        |

**High-Turnover Sit-Down Restaurant (932)** – Sit-down, full-service eating establishments with typical duration of stay of approximately one hour. They are usually moderately priced and often belong to a chain. This type would generate more trips than a quality restaurant and was selected to provide a conservatively high estimate of trips

|              |                       |      |
|--------------|-----------------------|------|
| Daily        | 127.15 trips/1,000 sf | 1.52 |
| AM Peak Hour | 10.81 trips/1,000 sf  | 1.52 |
| PM Peak Hour | 9.85 trips/1,000 sf   | 1.52 |

- Institute of Transportation Engineers (ITE) Trip Generation, 9<sup>th</sup> Edition, 2012. "T" = trips during time period; "X" = size of use in dwelling units for apartments, and in 1,000 square feet of area for other uses; "Ln" = Natural logarithm; "sf" = square feet.*
- Final Report on Improved Vehicle Occupancy Data Collection Methods, Battelle, April 1997.*
- No daily rate per seats is provided in Trip Generation for Multiplex Theater (Land Use Code 445) , so the ratio of "per screen" daily to PM peak hour rate was applied to PM peak hour trips to estimate daily trips.*
- No vehicle occupancy data are provided in Trip Generation for movie theater trips, so an estimate of 2.0 persons per vehicle was assumed.*
- No vehicle occupancy data are provided in Trip Generation for these uses, so 1.0 person per vehicle was assumed.*
- No AVO data are provided in Trip Generation for General Office (Land Use Code 710); assumed rate is from ITE's AVO rate for Single-Tenant Office Building (Land Use Code 715).*
- No vehicle occupancy data are directly provided in Trip Generation for the Shopping Center (Land Use Code 820); however, ITE data available for other retail uses indicate occupancy rates range from 1.17 (for a hardware store) to 1.46 (for a discount store). For this analysis, an AVO rate of 1.2 persons-per-vehicle was assumed.*

The *Trip Generation Manual* 9<sup>th</sup> edition does not include AVO data for residential uses; therefore, the AVO rate assumed for the residential units (apartments) was based in part on data presented in the *Final Report on Improved Vehicle Occupancy Data Collection Methods*.<sup>6</sup> This report includes AVO data for five cities, including Spokane, Washington, collected with five different methods. The analyses found a range of AVO rates from just over 1.1 to over 1.6 persons per vehicle depending on the location and methodology. For the purposes of this trip generation analysis an AVO rate of 1.2 was selected as representative of sites that were surveyed for the residential categories in ITE's *Trip Generation Manual*. This AVO rate has been applied by Heffron Transportation and approved for traffic analyses of numerous development projects in the Puget Sound region over the past decade.

The proposed daycare would have a capacity of 170 students, and would replace an existing 148-student daycare located next door to the Kirkland Urban site at 520 Kirkland Way. Based upon proprietary market demand analysis, the daycare estimates that 58 to 84 students of the 170-student capacity would come from within Kirkland Urban when it is at buildout level.<sup>7</sup> Consistent with previous analyses, the estimates presented in this memorandum assume that all daycare trips would be generated externally, and therefore are likely conservatively high.

## Internal Trips

In addition to trips to and from a site, the total number of trips generated by a mixed-use development includes "internal trips," or trips made between different uses on the site. For example, a trip that an office worker makes at lunchtime to a local retail shop is calculated in the trip generation estimates for both the office and the retail uses. Chapter 6 of the *Trip Generation Handbook*<sup>8</sup> is devoted to estimating trip generation for multi-use developments, and provides a methodology to estimate the number of internal trips that can be expected for specific mixes of uses. This method is based on the type and size of various land uses. The more balanced the mix of uses, the higher the percentage of internal trips. Developments with a predominance of one type of use (e.g., mostly office, or mostly residential) typically have lower percent-

<sup>6</sup> Battelle, April 1997.

<sup>7</sup> Brown, Debbie, Bright Horizons, personal communication with Jennifer Barnes, Heffron Transportation, August 27, 2015.

<sup>8</sup> Institute of Transportation Engineers, 3<sup>rd</sup> Edition, August 2014



ages of internal trips, while developments with a more balanced mix of uses (e.g. office, retail and residential) typically have higher percentages of internal trips.

ITE's methodology to determine internal trips has four steps:

1. Determine the number of person trips expected to be generated by each land use as if each was on a separate site.
2. Determine the number of internal trips based on internal capture rates presented in the *Trip Generation Handbook*.
3. Balance the number of internal trips to and from all land uses at the site.
4. Total the resulting number of internal trips and calculate the percentage of internal trips.

The updated method in the current edition of the *Trip Generation Handbook* includes up to six land use categories between which internal trips can be calculated. Four categories—Office, Retail, Residential, and Restaurant—were evaluated in the SEPA Addendum. However, addition of the movie theater as an explicit use introduces a fifth category, Cinema/Entertainment (the sixth potential category, Hotel, is not included in the Kirkland Urban program). The internal trip capture worksheets provided in the *Trip Generation Handbook* can only be used for up to four land use categories. If five or six categories are to be evaluated, a different spreadsheet model provided as part of *NCHRP Report 684*<sup>9</sup> must be used.

As part of analysis previously reviewed by the City,<sup>10</sup> the planned land uses for an anticipated buildout scenario were input into the NCHRP worksheet and compared to results using the four-way *Trip Generation Handbook* worksheet with the theater-generated trips included as part of Retail. Comparison showed that the results of the two methods were very close, with the internal capture rates calculated with the NCHRP worksheets similar or slightly higher than the internal capture rates calculated with the *Trip Generation Handbook* worksheet. Based upon that review, the City agreed that the four-way worksheets should continue to be used to estimate internal trips for Kirkland Urban (with theater trips included as part of Retail) because they are consistent with what was previously reviewed and approved by the City for the SEPA Addendum, and resulted in similar PM peak hour estimates. Since no AM peak hour trips are anticipated from the theater use and the NCHRP worksheet does not calculate daily internal trip capture, this is only relevant for the PM peak hour estimates.

## Person Trips

Total person trips were calculated by applying the baseline AVOs to the baseline vehicle trips calculated with ITE rates and equations. **Table 3** summarizes the estimated person trips (internal, external, and total) generated by the proposed Master Plan buildout program. Based on ITE methods, internal trips are estimated to account for about 36% of the daily trips, 26% of the AM peak hour trips and 30% of the PM peak hour trips, reflecting a balanced mix between the office, retail, restaurant, and residential uses. The internal trip calculations are provided in **Attachment A**. The total number of person trips external to the site is estimated at 19,710 per day, with about 1,802 trips in the AM peak hour and 2,191 trips in the PM peak hour.

<sup>9</sup> Bochner, B., K. Hooper, B. Sperry, and R. Dunphy, National Cooperative Highway Research Program (NCHRP) Report 684, Enhancing Internal Trip Capture Estimate for Mixed-Use Developments, Washington, DC.

<sup>10</sup> Heffron Transportation, Inc., Parkplace Redevelopment – Trip Generation Estimates by Phase, September 1, 2015.

Table 3. Total Person Trips Generated by the Proposed Buildout Program

| Person Trip Summary           | Size         | Daily Trips | AM Peak Hour |     |       | PM Peak Hour |       |       |
|-------------------------------|--------------|-------------|--------------|-----|-------|--------------|-------|-------|
|                               |              |             | In           | Out | Total | In           | Out   | Total |
| TOTAL PERSON TRIPS            |              |             |              |     |       |              |       |       |
| Retail (LU 820)               | 50,411 sf    | 5,220       | 76           | 47  | 123   | 218          | 236   | 454   |
| Apartment (LU 220)            | 367 units    | 2,280       | 44           | 176 | 220   | 171          | 92    | 263   |
| General Office (LU 710)       | 744,655 sf   | 6,640       | 923          | 126 | 1,049 | 171          | 833   | 1,004 |
| High Turn Restaurant (LU 932) | 44,789 sf    | 8,660       | 405          | 331 | 736   | 403          | 268   | 671   |
| Supermarket (LU 850)          | 55,251 sf    | 5,650       | 117          | 71  | 188   | 267          | 257   | 524   |
| Multiplex Theater (LU 445)    | 496 seats    | 1,280       | 0            | 0   | 0     | 56           | 43    | 99    |
| Daycare (LU 565)              | 170 students | 780         | 72           | 64  | 136   | 56           | 64    | 120   |
| Total All Person Trips        |              | 31,050      | 1,637        | 815 | 2,452 | 1,342        | 1,793 | 3,135 |
| INTERNAL PERSON TRIPS         |              |             |              |     |       |              |       |       |
| Retail (LU 820)               |              | 1,660       | 20           | 20  | 40    | 77           | 91    | 168   |
| Apartment (LU 220)            |              | 1,510       | 3            | 41  | 44    | 113          | 62    | 175   |
| General Office (LU 710)       |              | 1,770       | 141          | 114 | 255   | 23           | 58    | 81    |
| High Turn Restaurant (LU 932) |              | 4,190       | 129          | 120 | 249   | 144          | 145   | 289   |
| Supermarket (LU 850)          |              | 1,800       | 32           | 30  | 62    | 95           | 99    | 194   |
| Multiplex Theater (LU 445)    |              | 410         | 0            | 0   | 0     | 20           | 17    | 37    |
| Daycare (LU 565)              |              | 0           | 0            | 0   | 0     | 0            | 0     | 0     |
| Total Internal Trips          |              | 11,340      | 325          | 325 | 650   | 472          | 472   | 944   |
| % Internal Trips              |              | 36.5%       | 26.5%        |     |       | 30.1%        |       |       |
| EXTERNAL PERSON TRIPS         |              |             |              |     |       |              |       |       |
| Retail (LU 820)               |              | 3,560       | 56           | 27  | 83    | 141          | 145   | 286   |
| Apartment (LU 220)            |              | 1,310       | 41           | 135 | 176   | 58           | 30    | 88    |
| General Office (LU 710)       |              | 4,870       | 782          | 12  | 794   | 148          | 775   | 923   |
| High Turn Restaurant (LU 932) |              | 4,470       | 276          | 211 | 487   | 259          | 123   | 382   |
| Supermarket (LU 850)          |              | 3,850       | 85           | 41  | 126   | 172          | 158   | 330   |
| Multiplex Theater (LU 445)    |              | 870         | 0            | 0   | 0     | 36           | 26    | 62    |
| Daycare (LU 565)              |              | 780         | 72           | 64  | 136   | 56           | 64    | 120   |
| Total External Person Trips   |              | 19,710      | 1,312        | 490 | 1,802 | 870          | 1,321 | 2,191 |

Source: Heffron Transportation, Inc., October 2018. Estimated using procedures in the ITE Trip Generation Handbook, 3rd Edition, 2017.



## Local Mode of Travel and Average Vehicle Occupancy

The mode of travel percentages and average vehicle occupancies (AVOs) for residents and employees in the area in which the Kirkland Urban site is located were derived from Journey-to-Work survey results from the year 2010 Census, compiled by the Puget Sound Regional Council (PSRC).<sup>11</sup> Since the PSRC data did not include mode share data for retail trips, the same mode of travel assumptions applied to the original (2008) EIS analysis—0% transit, 3.5% non-motorized, and 96.5% vehicle—were assumed. Given the proximity of the Kirkland Urban site to other downtown office, retail and residential development, it is expected that the assumed non-motorized travel share for retail-generated trips is conservatively low, resulting in a higher estimate of vehicle trips. All trips generated by the daycare were assumed to occur by vehicle; given the high level of employees and residents located within walking distance of the Kirkland Urban site, this is considered to be conservatively high. AVOs for trips generated by retail uses were assumed to be the same as the baseline AVOs. **Table 4** summarizes the AVO and mode-split percentage assumptions that were applied to the person trips for each land use type. **Table 5** summarizes the resulting trips by mode of travel for the proposed program.

Table 4. Mode Split & Average Vehicle Occupancy for Local Neighborhood

| Land Use Type            | Local AVO<br>Rate for Area | Mode of Travel |               |               |
|--------------------------|----------------------------|----------------|---------------|---------------|
|                          |                            | Walk & Bike    | Transit Trips | Vehicle Trips |
| Office <sup>1</sup>      | 1.07                       | 8.0%           | 15.0%         | 77.0%         |
| Residential <sup>1</sup> | 1.03                       | 4.0%           | 9.0%          | 87.0%         |
| Retail <sup>2</sup>      | Varies <sup>2</sup>        | 3.5%           | 0%            | 96.5%         |
| Daycare                  | 1.0                        | 0.0%           | 0.0%          | 100.0%        |

1. PSRC, Journey-to-Work data from 2010 U.S. Census, Data for Transportation Analysis Zones (TAZs) 258 and 260.

2. Mode of travel share: City of Kirkland, 2008; AVOs vary by retail type, assumed to be the same as baseline (see Table 2).

<sup>11</sup> PSRC, Journey-to-Work data from 2010 U.S. Census, Data for Transportation Analysis Zones (TAZs) 258 and 260.

Table 5. Person Trips by Mode of Travel

| Project Component and<br>Type of Trip by Mode | % of Trips | Daily<br>Trips | AM Peak Hour Trips |     |       | PM Peak Hour Trips |       |       |
|---|------------|----------------|--------------------|-----|-------|--------------------|-------|-------|
|   |            |                | In                 | Out | Total | In                 | Out   | Total |
| <b>Retail (LU 820)</b>                        |            |                |                    |     |       |                    |       |       |
| Walk or Bicycle Trips                         | 3.5%       | 120            | 2                  | 1   | 3     | 5                  | 5     | 10    |
| Transit Trips                                 | 0.0%       | 0              | 0                  | 0   | 0     | 0                  | 0     | 0     |
| Person Trips by Vehicle                       | 96.5%      | 3,440          | 54                 | 26  | 80    | 136                | 140   | 276   |
| Total   | 100.0%     | 3,560          | 56                 | 27  | 83    | 141                | 145   | 286   |
| <b>Apartment (LU 220)</b>                     |            |                |                    |     |       |                    |       |       |
| Walk or Bicycle Trips                         | 4.0%       | 50             | 2                  | 5   | 7     | 2                  | 2     | 4     |
| Transit Trips                                 | 9.0%       | 120            | 4                  | 12  | 16    | 5                  | 3     | 8     |
| Person Trips by Vehicle                       | 87.0%      | 1,140          | 35                 | 118 | 153   | 51                 | 25    | 76    |
| Total   | 100.0%     | 1,310          | 41                 | 135 | 176   | 58                 | 30    | 88    |
| <b>General Office (LU 710)</b>                |            |                |                    |     |       |                    |       |       |
| Walk or Bicycle Trips                         | 8.0%       | 390            | 63                 | 1   | 64    | 12                 | 62    | 74    |
| Transit Trips                                 | 15.0%      | 730            | 117                | 2   | 119   | 22                 | 116   | 138   |
| Person Trips by Vehicle                       | 77.0%      | 3,750          | 602                | 9   | 611   | 114                | 597   | 711   |
| Total   | 100.0%     | 4,870          | 782                | 12  | 794   | 148                | 775   | 923   |
| <b>Restaurant (LU 932)</b>                    |            |                |                    |     |       |                    |       |       |
| Walk or Bicycle Trips                         | 3.5%       | 160            | 10                 | 7   | 17    | 9                  | 4     | 13    |
| Transit Trips                                 | 0.0%       | 0              | 0                  | 0   | 0     | 0                  | 0     | 0     |
| Person Trips by Vehicle                       | 96.5%      | 4,310          | 266                | 204 | 470   | 250                | 119   | 369   |
| Total   | 100.0%     | 4,470          | 276                | 211 | 487   | 259                | 123   | 382   |
| <b>Supermarket (LU 850)</b>                   |            |                |                    |     |       |                    |       |       |
| Walk or Bicycle Trips                         | 3.5%       | 130            | 3                  | 1   | 4     | 6                  | 6     | 12    |
| Transit Trips                                 | 0.0%       | 0              | 0                  | 0   | 0     | 0                  | 0     | 0     |
| Person Trips by Vehicle                       | 96.5%      | 3,720          | 82                 | 40  | 122   | 166                | 152   | 318   |
| Total   | 100.0%     | 3,850          | 85                 | 41  | 126   | 172                | 158   | 330   |
| <b>Multiplex Theater (LU 445)</b>             |            |                |                    |     |       |                    |       |       |
| Walk or Bicycle Trips                         | 3.5%       | 30             | 0                  | 0   | 0     | 1                  | 1     | 2     |
| Transit Trips                                 | 0.0%       | 0              | 0                  | 0   | 0     | 0                  | 0     | 0     |
| Person Trips by Vehicle                       | 96.5%      | 840            | 0                  | 0   | 0     | 35                 | 25    | 60    |
| Total   | 100.0%     | 870            | 0                  | 0   | 0     | 36                 | 26    | 62    |
| <b>Daycare (LU 565)</b>                       |            |                |                    |     |       |                    |       |       |
| Walk or Bicycle Trips                         | 3.5%       | 0              | 0                  | 0   | 0     | 0                  | 0     | 0     |
| Transit Trips                                 | 0.0%       | 0              | 0                  | 0   | 0     | 0                  | 0     | 0     |
| Person Trips by Vehicle                       | 96.5%      | 780            | 72                 | 64  | 136   | 56                 | 64    | 120   |
| Total   | 100.0%     | 780            | 72                 | 64  | 136   | 56                 | 64    | 120   |
| <b>Total Person Trips</b>                     |            |                |                    |     |       |                    |       |       |
| Walk or Bicycle Trips                         |            | 880            | 80                 | 15  | 95    | 35                 | 80    | 115   |
| Transit Trips                                 |            | 850            | 121                | 14  | 135   | 27                 | 119   | 146   |
| Person Trips by Vehicle                       |            | 17,980         | 1,111              | 461 | 1,572 | 808                | 1,122 | 1,930 |
| Total   |            | 19,710         | 1,312              | 490 | 1,802 | 870                | 1,321 | 2,191 |

Source: Heffron Transportation, Inc., September 2018. Estimated using procedures in the ITE Trip Generation Handbook, 3rd Edition, 2017.

## Vehicle Trips for Proposed Project

Vehicle trips were determined by applying the local AVO rates to the person trips by vehicle generated by each land use. The total vehicle trips for the Proposed Buildout under the Master Plan are summarized in **Table 6**. This buildout program is estimated to generate 15,240 vehicle trips per day, with 1,354 in the AM peak hour and 1,679 in the PM peak hour.

Table 6. Total Vehicle Trips Generated by the Action Alternative

| Land Use                   | Size         | Daily Vehicle Trips | AM Peak Hour Vehicle Trips |     |       | PM Peak Hour Vehicle Trips |       |       |
|----------------------------|--------------|---------------------|----------------------------|-----|-------|----------------------------|-------|-------|
|                            |              |                     | In                         | Out | Total | In                         | Out   | Total |
| Retail (LU 820)            | 50,411 sf    | 2,870               | 45                         | 22  | 67    | 113                        | 117   | 230   |
| Apartment (LU 220)         | 367 units    | 1,110               | 34                         | 115 | 149   | 50                         | 24    | 74    |
| General Office (LU 710)    | 744,655 sf   | 3,500               | 563                        | 8   | 571   | 107                        | 557   | 664   |
| Restaurant (LU 932)        | 44,789 sf    | 2,840               | 175                        | 134 | 309   | 164                        | 79    | 243   |
| Supermarket (LU 850)       | 55,251 sf    | 3,720               | 82                         | 40  | 122   | 166                        | 152   | 318   |
| Multiplex Theater (LU 445) | 496 seats    | 420                 | 0                          | 0   | 0     | 18                         | 12    | 30    |
| Daycare (LU 565)           | 170 students | 780                 | 72                         | 64  | 136   | 56                         | 64    | 120   |
| Total                      |              | 15,240              | 971                        | 383 | 1,354 | 674                        | 1,005 | 1,679 |

Source: Heffron Transportation, Inc. September, 2018. Estimated using procedures in the ITE Trip Generation Handbook, 3<sup>rd</sup> Edition, 2017.

## Trip Components

Two types of trips—primary and pass-by trips—reflect the traffic impact characteristics associated with the retail element of the proposed mixed-use land uses.

- **Pass-by Trips** are already on the roadway network on the way to another destination. For example, a trip to a retail store during a trip home from work that uses Central Way would be a pass-by trip.
- **Primary (New) Trips** are single-purpose trips generated by the retail or other land use types. New trips are generally assumed to begin and end at home, although some new trips could originate at work or other locations.

Pass-by trips would affect driveway volumes at the site access points, but do not represent new trips on the citywide roadway network. The same average pass-by trip percentages that were applied in the 2008 analysis for general retail, restaurant, and supermarket uses at the site were applied to these uses in the current proposal—25% for general retail, 10% for high turnover restaurant, and 26% for supermarket. The pass-by percentages that were applied are lower than the respective ITE average pass-by percentages published in the *Trip Generation Handbook* (34% for general retail, 43% for high turnover restaurant, and 36% for supermarket).<sup>12</sup> Therefore, the assumptions that were applied are considered conservatively low, resulting in a higher estimate of primary (new) vehicle trips generated by the project. **Table 7** summarizes the vehicle trips by component for each proposed land use.

<sup>12</sup> Institute of Transportation Engineers, 2017.



Table 7. Vehicle Trip Generation by Trip Component

| Project Component and<br>Type of Trip by Mode | Trip<br>Component% | Daily<br>Trips | AM Peak Hour Trips |     |       | PM Peak Hour Trips |       |       |
|---|--------------------|----------------|--------------------|-----|-------|--------------------|-------|-------|
|   |                    |                | In                 | Out | Total | In                 | Out   | Total |
| <b>Retail (LU 820)</b>                        |                    |                |                    |     |       |                    |       |       |
| Primary Trips                                 | 75%                | 2,152          | 37                 | 14  | 51    | 84                 | 88    | 172   |
| Pass-by Trips                                 | 25%                | 718            | 8                  | 8   | 16    | 29                 | 29    | 58    |
| Total   | 100%               | 2,870          | 45                 | 22  | 67    | 113                | 117   | 230   |
| <b>Apartment (LU 220)</b>                     |                    |                |                    |     |       |                    |       |       |
| Primary Trips                                 | 100%               | 1,110          | 34                 | 115 | 149   | 50                 | 24    | 74    |
| Pass-by Trips                                 | 0%                 | 0              | 0                  | 0   | 0     | 0                  | 0     | 0     |
| Total   | 100%               | 1,110          | 34                 | 115 | 149   | 50                 | 24    | 74    |
| <b>General Office (LU 710)</b>                |                    |                |                    |     |       |                    |       |       |
| Primary Trips                                 | 100%               | 3,500          | 563                | 8   | 571   | 107                | 557   | 664   |
| Pass-by Trips                                 | 0%                 | 0              | 0                  | 0   | 0     | 0                  | 0     | 0     |
| Total   | 100%               | 3,500          | 563                | 8   | 571   | 107                | 557   | 664   |
| <b>Restaurant (LU 932)</b>                    |                    |                |                    |     |       |                    |       |       |
| Primary Trips                                 | 90%                | 2,556          | 160                | 119 | 279   | 152                | 67    | 219   |
| Pass-by Trips                                 | 10%                | 284            | 15                 | 15  | 30    | 12                 | 12    | 24    |
| Total   | 100%               | 2,840          | 175                | 134 | 309   | 164                | 79    | 243   |
| <b>Supermarket (LU 850)</b>                   |                    |                |                    |     |       |                    |       |       |
| Primary Trips                                 | 74%                | 2,752          | 66                 | 24  | 90    | 125                | 111   | 236   |
| Pass-by Trips                                 | 26%                | 968            | 16                 | 16  | 32    | 41                 | 41    | 82    |
| Total   | 100%               | 3,720          | 82                 | 40  | 122   | 166                | 152   | 318   |
| <b>Multiplex Theater (LU 445)</b>             |                    |                |                    |     |       |                    |       |       |
| Primary Trips                                 | 100%               | 420            | 0                  | 0   | 0     | 18                 | 12    | 30    |
| Pass-by Trips                                 | 0%                 | 0              | 0                  | 0   | 0     | 0                  | 0     | 0     |
| Total   | 100%               | 420            | 0                  | 0   | 0     | 18                 | 12    | 30    |
| <b>Daycare (LU 565)</b>                       |                    |                |                    |     |       |                    |       |       |
| Primary Trips                                 | 100%               | 780            | 72                 | 64  | 136   | 56                 | 64    | 120   |
| Pass-by Trips                                 | 0%                 | 0              | 0                  | 0   | 0     | 0                  | 0     | 0     |
| Total   | 100%               | 780            | 72                 | 64  | 136   | 56                 | 64    | 120   |
| <b>Total Person Trips</b>                     |                    |                |                    |     |       |                    |       |       |
| Primary Trips                                 |                    | 13,270         | 932                | 344 | 1,276 | 592                | 923   | 1,515 |
| Pass-by Trips                                 |                    | 1,970          | 39                 | 39  | 78    | 82                 | 82    | 164   |
| Total   |                    | 15,240         | 971                | 383 | 1,354 | 674                | 1,005 | 1,679 |

Source: Heffron Transportation, Inc., September 2018.





### 3. Conclusion

The trips generated by the proposed Master Plan buildout program were estimated by applying the same methods and assumptions that were applied in the SEPA Addendum analysis.<sup>13</sup> The proposed Master Plan buildout program for Kirkland Urban has similar types, but a different mix of land uses compared to the program analyzed for the SEPA Addendum. The analysis presented in this memorandum shows that while the total proposed square footage is higher, the proposed mix of uses would result in essentially the same number of total PM peak hour trips as the program analyzed for the SEPA Addendum. This is primarily because the trips generated by the additional office and residential would be offset by the reduction in proposed retail—including elimination of the health club use, and inclusion of the movie theater which is a lower trip generator than the general retail analyzed for that space in the SEPA Addendum analysis. Additionally, the higher number of residential units results in a more balanced mix between the different land use categories and in turn, a slightly higher proportion of internal trips. Therefore, the proposed Master Plan buildout program would be within the 1,680 PM peak hour trip threshold that is established in the PAO (Ordinance O-4473).

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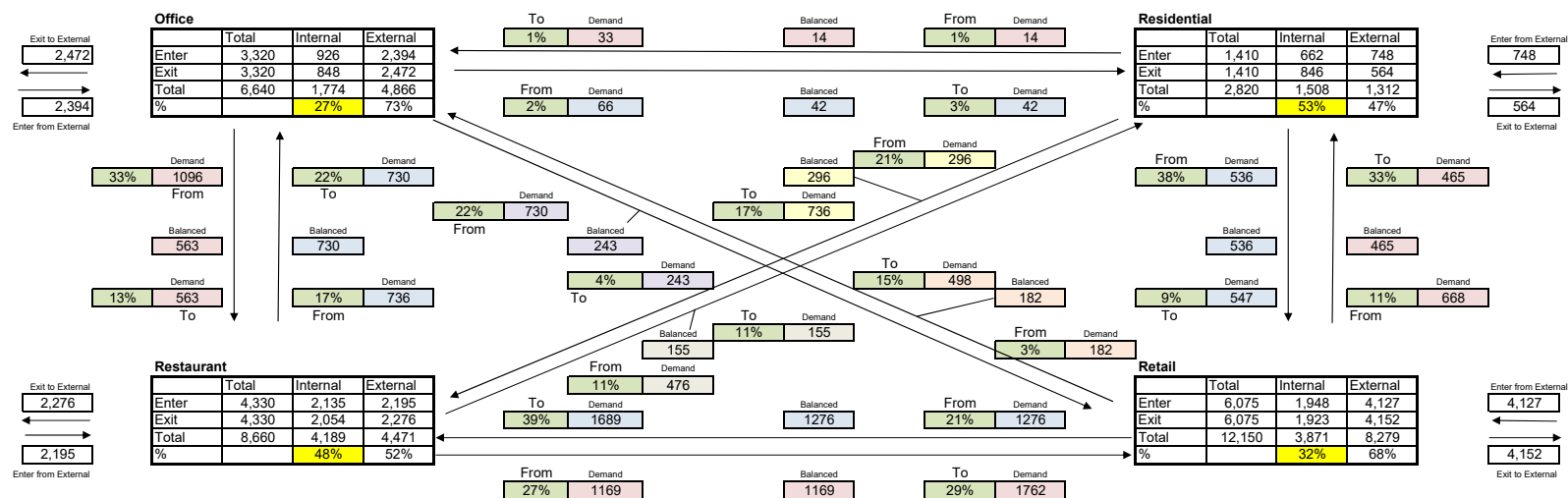
<sup>13</sup> City of Kirkland, February 2015.

ATTACHMENT A  
INTERNAL TRIP CALCULATIONS  
DAILY, AM PEAK, PM PEAK

Name of Development: **Kirkland Urban - Proposed Master Plan Bui**  
Time Period: **Daily**

**MULTI-USE DEVELOPMENT  
TRIP GENERATION  
AND INTERNAL CAPTURE SUMMARY**

Sources: ITE Trip Generation Handbook, 3rd edition, September 2017  
ITE Trip Generation Handbook, 2nd edition, June 2004



**Summary**

| Net External Trips for Multi-Use Development |        |            |             |        |        | Internal |
|--|--------|------------|-------------|--------|--------|----------|
|  | Office | Restaurant | Residential | Retail | Total  | Trips    |
| External Trips Enter                         | 2,394  | 2,195      | 748         | 4,127  | 9,464  | 5,671    |
| External Trips Exit                          | 2,472  | 2,276      | 564         | 4,152  | 9,464  | 5,671    |
| Total External Trips                         | 4,866  | 4,471      | 1,312       | 8,279  | 18,928 | 11,342   |
| Total All Trips                              | 6,640  | 8,660      | 2,820       | 12,150 | 30,270 |          |
| Internal Trips                               | 1,774  | 4,189      | 1,508       | 3,871  | 11,342 |          |
|  |        |            |             |        |        | 37.5%    |

**Total All Trips**

|       |        |
|-------|--------|
| Enter | 15,135 |
| Exit  | 15,135 |
| Total | 30,270 |

Sum of Total on Input Sheet = 30,270 Match

**Internal Trips - Data to Transfer to Assumptions & Calculations Sheet**

|  | In    | Out   | Total        |
|--|-------|-------|--------------|
| Retail (LU 820)                          | 837   | 826   | 1,663        |
| Apartment (LU 220)                       | 662   | 846   | 1,508        |
| General Office (LU 710)                  | 926   | 848   | 1,774        |
| Health Club (LU 492)                     | 0     | 0     | 0            |
| Quality Restaurant (LU 931)              | 0     | 0     | 0            |
| High Turnover Restaurant (LU 932)        | 2,135 | 2,054 | 4,189        |
| Supermarket (LU 850)                     | 906   | 894   | 1,800        |
| Multiplex Theater (LU 445)               | 205   | 203   | 408          |
| Total Internal Person Trips - Restaurant | 2,135 | 2,054 | 4,189        |
| Total Internal Person Trips - Retail     | 1,948 | 1,923 | 3,871        |
| Total internal trips                     | 5,671 | 5,671 | 11,342       |
|  |       |       | 11,342 Match |

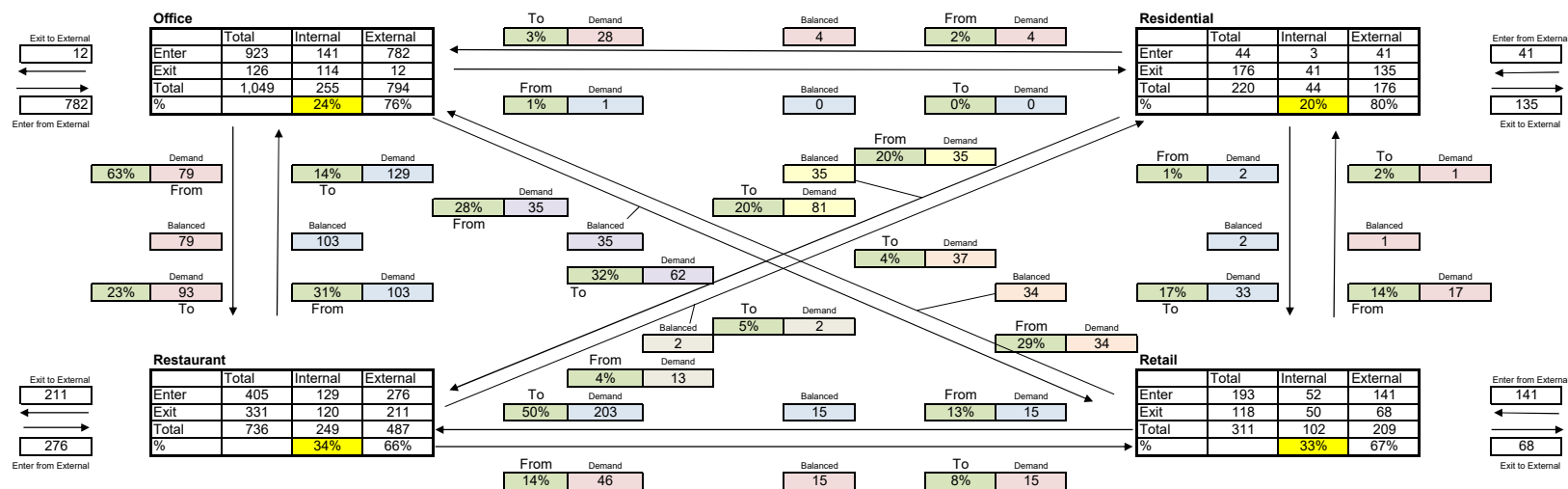
Distribute restaurant internal trips between Quality Restaurant and High Turnover Restaurant  
Distribute retail internal trips between General Retail, Health Club, Supermarket, and Theater

| Total Retail Person Trips          |       | Proportion of Total |      | Total Restaurant Person Trips          |       | Proportion of Total |      |
|------------------------------------|-------|---------------------|------|--|-------|---------------------|------|
| In                                 | Out   | In                  | Out  | In                                     | Out   | In                  | Out  |
| 2,610                              | 2,610 | 0.43                | 0.43 |  |       |                     |      |
| 0                                  | 0     | 0.00                | 0.00 |  |       |                     |      |
| 2,825                              | 2,825 | 0.47                | 0.47 | 0                                      | 0     | 0.00                | 0.00 |
| 640                                | 640   | 0.11                | 0.11 | 4,330                                  | 4,330 | 1.00                | 1.00 |
| 6,075                              | 6,075 | 1.00                | 1.00 |  |       |                     |      |
| Total Internal Retail Person Trips |       |                     |      | Total Internal Restaurant Person Trips |       |                     |      |
| In                                 | Out   | Total               |      | In                                     | Out   | Total               |      |
| 1,948                              | 1,923 | 3,871               |      | 2,135                                  | 2,054 | 4,189               |      |

Name of Development: **Kirkland Urban - Proposed Master Plan Build**  
Time Period: **AM Peak Hour**

**MULTI-USE DEVELOPMENT  
TRIP GENERATION  
AND INTERNAL CAPTURE SUMMARY**

Source: ITE Trip Generation Handbook, 3rd edition, September 2017



**Summary**

| Net External Trips for Multi-Use Development |        |            |             |        |       | Internal |
|--|--------|------------|-------------|--------|-------|----------|
|  | Office | Restaurant | Residential | Retail | Total | Trips    |
| External Trips Enter                         | 782    | 276        | 41          | 141    | 1,240 | 325      |
| External Trips Exit                          | 12     | 211        | 135         | 68     | 426   | 325      |
| Total External Trips                         | 794    | 487        | 176         | 209    | 1,666 | 650      |
| Total All Trips                              | 1,049  | 736        | 220         | 311    | 2,316 | 28.1%    |
| Internal Trips                               | 255    | 249        | 44          | 102    | 650   |          |

**Total All Trips**

Enter 1,565  
Exit 751  
Total 2,316

Sum of Total on Input Sheet = 2,316 Match

**Internal Trips - Data to Transfer to Assumptions & Calculations Sheet**

|  | In  | Out | Total     |
|--|-----|-----|-----------|
| Retail (LU 820)                          | 20  | 20  | 40        |
| Apartment (LU 220)                       | 3   | 41  | 44        |
| General Office (LU 710)                  | 141 | 114 | 255       |
| Health Club (LU 492)                     | 0   | 0   | 0         |
| Quality Restaurant (LU 931)              | 0   | 0   | 0         |
| High Turnover Restaurant (LU 932)        | 129 | 120 | 249       |
| Supermarket (LU 850)                     | 32  | 30  | 62        |
| Multiplex Theater (LU 445)               | 0   | 0   | 0         |
| manual adjust to balance                 |     |     |           |
| Total Internal Person Trips - Restaurant | 129 | 120 | 249       |
| Total Internal Person Trips - Retail     | 52  | 50  | 102       |
| Total internal trips                     | 325 | 325 | 650       |
|  |     |     | 650 Match |
|  |     |     | 650 Match |

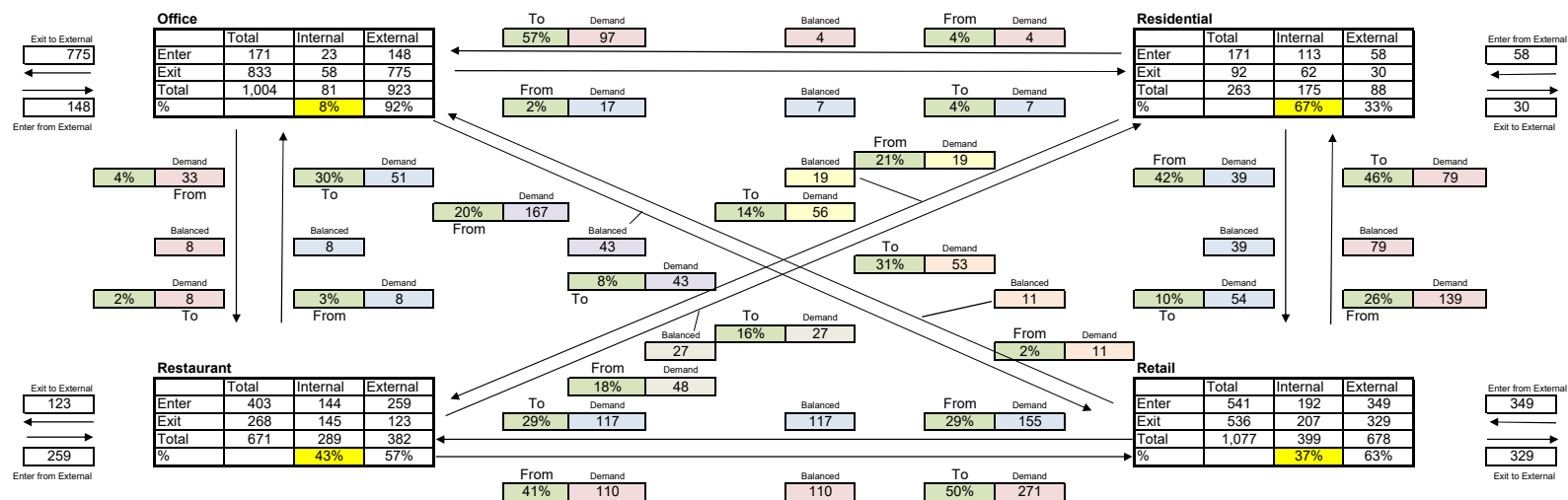
Distribute restaurant internal trips between Quality Restaurant and High Turnover Restaurant  
Distribute retail internal trips between General Retail, Health Club, Supermarket, and Theater

| Total Retail Person Trips          |     | Proportion of Total |      | Total Restaurant Person Trips          |     | Proportion of Total |      |
|------------------------------------|-----|---------------------|------|--|-----|---------------------|------|
| In                                 | Out | In                  | Out  | In                                     | Out | In                  | Out  |
| 76                                 | 47  | 0.39                | 0.40 |  |     |                     |      |
| 0                                  | 0   | 0.00                | 0.00 |  |     |                     |      |
| 117                                | 71  | 0.61                | 0.60 | 0                                      | 0   | 0.00                | 0.00 |
| 0                                  | 0   | 0.00                | 0.00 | 405                                    | 331 | 1.00                | 1.00 |
| 193                                | 118 | 1.00                | 1.00 | 405                                    | 331 | 1.00                | 1.00 |
| Total Internal Retail Person Trips |     |                     |      | Total Internal Restaurant Person Trips |     |                     |      |
| In                                 | Out | Total               |      | In                                     | Out | Total               |      |
| 52                                 | 50  | 102                 |      | 129                                    | 120 | 249                 |      |

Name of Development: **Kirkland Urban - Proposed Master Plan Bu**  
 Time Period: **PM Peak Hour**

**MULTI-USE DEVELOPMENT  
 TRIP GENERATION  
 AND INTERNAL CAPTURE SUMMARY**

Source: ITE Trip Generation Handbook, 3rd edition, September 2017



**Summary**

| Net External Trips for Multi-Use Development |        |            |             |        |       | Internal |
|--|--------|------------|-------------|--------|-------|----------|
|  | Office | Restaurant | Residential | Retail | Total | Trips    |
| External Trips Enter                         | 148    | 259        | 58          | 349    | 814   | 472      |
| External Trips Exit                          | 775    | 123        | 30          | 329    | 1,257 | 472      |
| Total External Trips                         | 923    | 382        | 88          | 678    | 2,071 | 944      |
| Total All Trips                              | 1,004  | 671        | 263         | 1,077  | 3,015 | 31.3%    |
| Internal Trips                               | 81     | 289        | 175         | 399    | 944   |          |

**Total All Trips**

Enter 1,286  
 Exit 1,729  
 Total 3,015

Sum of Total on Input Sheet = 3,015 Match

**Internal Trips - Data to Transfer to Assumptions & Calculations Sheet**

|  | In  | Out | Total     |
|--|-----|-----|-----------|
| Retail (LU 820)                          | 77  | 91  | 168       |
| Apartment (LU 220)                       | 113 | 62  | 175       |
| General Office (LU 710)                  | 23  | 58  | 81        |
| Health Club (LU 492)                     | 0   | 0   | 0         |
| Quality Restaurant (LU 931)              | 0   | 0   | 0         |
| High Turnover Restaurant (LU 932)        | 144 | 145 | 289       |
| Supermarket (LU 850)                     | 95  | 99  | 194       |
| Multiplex Theater (LU 445)               | 20  | 17  | 37        |
| Total Internal Person Trips - Restaurant | 144 | 145 | 289       |
| Total Internal Person Trips - Retail     | 192 | 207 | 399       |
| Total Internal Trips                     | 472 | 472 | 944       |
|  |     |     | 944 Match |

Distribute restaurant internal trips between Quality Restaurant and High Turnover Restaurant  
 Distribute retail internal trips between General Retail, Health Club, Supermarket, and Theater

| Total Retail Person Trips          |     | Proportion of Total |      | Total Restaurant Person Trips          |     | Proportion of Total |      |
|------------------------------------|-----|---------------------|------|--|-----|---------------------|------|
| In                                 | Out | In                  | Out  | In                                     | Out | In                  | Out  |
| 218                                | 236 | 0.40                | 0.44 |  |     |                     |      |
| 0                                  | 0   | 0.00                | 0.00 |  |     |                     |      |
| 267                                | 257 | 0.49                | 0.48 | 0                                      | 0   | 0.00                | 0.00 |
| 56                                 | 43  | 0.10                | 0.08 | 403                                    | 268 | 1.00                | 1.00 |
| 541                                | 536 | 1.00                | 1.00 | 403                                    | 268 | 1.00                | 1.00 |
| Total Internal Retail Person Trips |     |                     |      | Total Internal Restaurant Person Trips |     |                     |      |
| In                                 | Out | Total               |      | In                                     | Out | Total               |      |
| 192                                | 207 | 399                 |      | 144                                    | 145 | 289                 |      |



B

#### SITE AREA BREAKDOWN • TOTAL SITE AREA = 501,000 SF = 100%

|                                |                           |                        |
|--------------------------------|---------------------------|------------------------|
| Building Footprint<br>40 - 45% | Vehicle Areas<br>20 - 25% | Open Space<br>35 - 40% |
|--------------------------------|---------------------------|------------------------|

1,315,000 gsf

#### OPEN SPACE BREAKDOWN

|                               |   |   |
|-------------------------------|---|---|
| Sidewalks<br>20 - 25% of Site | Pedestrian Space:<br>Plazas/Courtyards/Gardens/Elevated Terrace<br>15 - 20% of site (75,000 sf minimum) | Private<br>Roof<br>Terrace<br>10,000 sf |
|-------------------------------|---|---|

#### BUILDING USE BREAKDOWN • Approximate 1,175,000 GROSS SF TOTAL = 100%

|                                 |   |  |
|---------------------------------|---|--|
| Commercial Office<br>620,000 sf | Retail / Fitness /<br>Entertainment<br>203,000 sf | Residential<br>380 units<br>352,000 sf |
|---------------------------------|---|--|

744,655 sf      218,345 sf      367 units

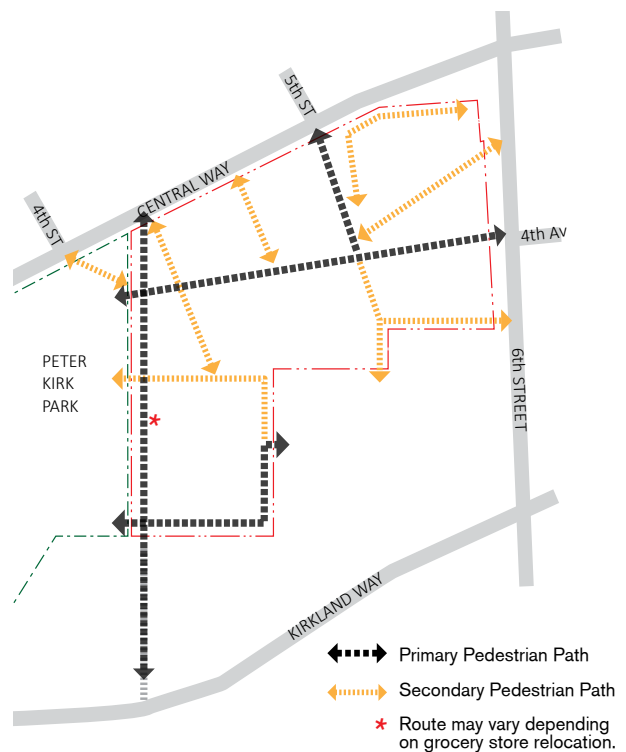
## 10. Public Amenities, Access, and Organization of Uses

### A. PEDESTRIAN CONNECTIONS

**Intent: Create a network of identifiable linkages into and through the project site for pedestrians.**

The diagram at right shows approximate pedestrian connections. Darker lines indicate primary connections designated by the Comprehensive Plan. Lighter lines show secondary connections linking existing proposed streets as well as Peter Kirk Park. These connections are for public use.

The applicant shall work with the City to define appropriate wayfinding strategies between the development and the Cross Kirkland Corridor.



Network of pedestrian connections





**CITY OF KIRKLAND****Department of Public Works**

123 Fifth Avenue, Kirkland, WA 98033 425.587.3800

[www.kirklandwa.gov](http://www.kirklandwa.gov)

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**MEMORANDUM**

**To:** Angela Ruggeri, Senior Planner

**From:** Thang Nguyen, Transportation Engineer

**Date:** November 19, 2018

**Subject:** Urban Trip Generation Review

This memorandum summarizes my review of the trip generation for Phase 2 & 3 of the Urban development.

**STAFF FINDINGS**

The proposed changes to the development will not exceed the 1,680 PM peak hour trip threshold that was a condition of approval established in the Park Place SEPA Addendum. Therefore, the project will not create more transportation impact than what was identified in the Park Place SEPA analysis and Addendum.

**STAFF RECOMMENDATIONS**

Public Works staff recommends approval of the proposed land use change to the Urban Development.

***Off-site SEPA Mitigation***

The existing SEPA mitigations identified in the Park Place SEPA Addendum are adequate to mitigate the transportation impacts of the current proposed buildout of the development as summarized in Table 1 on the next page.

**Project Description**

The applicant is proposing a land use change and size of the Urban development (a.k.a. Park Place). Compared to the approved development described in the Park Place SEPA Addendum, the current proposed buildout will not include a health club, will have less restaurant and retail spaces, a slightly larger supermarket, and larger movie theater and office spaces with a net gain of 140,000 square feet of building floor area. The current proposed buildout would also have a net gain of 140,000 square feet of building floor area as compared to the approved 2017 proposal. Table 1 summarizes the current development and the proposed changes in land use.

Table 1. Land Use Changes

| Land Use                      | Estimated Buildout Development per 2015 Analysis <sup>1</sup> (09/2015) | Estimated Buildout Development per 2017 Analysis <sup>2</sup> (06/2017) | Current Proposed Buildout (Proposed Revision Request, 10/2018) <sup>3</sup> | Approved SEPA Addendum (02/2015) | Net SF Differences (Proposed Buildout – SEPA Addendum) | Net SF Differences (Proposed Buildout – 2017 Buildout) |
|-------------------------------|---|---|---|----------------------------------|--|--|
| Office                        | 629,944 SF  | 612,359 SF  | 744,655 SF  | 650,000 SF                       | +94,655 SF   | +132,296 SF  |
| Supermarket                   | 46,570 SF   | 48,445 SF   | 55,251 SF   | 54,000 SF                        | +1,251 SF  | +6,806 SF  |
| Restaurant                    | 50,676 SF   | 61,616 SF   | 44,789 SF   | 53,000 SF                        | -8,211 SF  | -16,827 SF   |
| General Retail                | 60,620 SF   | 43,688 SF   | 50,411 SF   | 44,000 SF                        | -37,589 SF   | +6,728 SF  |
| Movie Theater                 | 37,530 SF (1,000 seats) <sup>4</sup>                                    | 42,837 SF (496 seats)   | 53,839 SF (496 seats)   | 44,000 <sup>5</sup> SF           | +9,839 SF  | +11,002 SF   |
| Apartment                     | 254,250 SF (330 units)  | 352,000 SF (380 units)  | 352,000 SF (367 units)  | 300,000 SF (300 units)           | +52,000 SF   | +37 Units  |
| Daycare                       | 12,655 SF (170 students)  | 14,055 SF (170 students)  | 14,055 SF (170 students)  | ---                              | +14,055 SF   | -  |
| Health Club                   | 33,792 SF   | ---   | ---   | 30,000 SF                        | -30,000 SF   | -  |
| <b>Total Gross Floor Area</b> | <b>1,126,037 SF</b>   | <b>1,175,000 SF</b>   | <b>1,315,000 SF</b>   | <b>1,175,000 SF</b>              | <b>+140,000 SF</b>                                     | <b>+140,000 SF</b>                                     |

1. Estimated buildout in the 2015 analysis to support Phase 1 permitting.
2. Estimated buildout in the 2017 analysis to support previous application for revision in Master Plan to allow increased residential units, with total square footage remaining consistent with SEPA Addendum.
3. Proposed buildout, which will require increase in Master Plan total square footage.
4. 2015 analysis was completed prior to design of the movie theater; a 1,000-seat capacity was analyzed as a conservative estimate.
5. The SEPA Addendum analyzed the movie theater space as general retail.

### Trip Generation

The trip generation calculation for the current proposal was based on the same methodologies, assumptions and trip generation rates as the SEPA Addendum. The current proposed alternative is calculated to generate less daily trips, but more AM peak hour trips and about the same amount of PM peak hour trips. Table 2 summarizes the trip generation comparison.

The SEPA addendum sets a development threshold for the Urban development project not exceed 1,680 PM peak hour trips. The current proposed alternative is calculated to generate approximately 1,679 PM peak hour trips which is within the PM peak hour trip limit for the Urban development.

The major change in the current proposal is the increase of office and multifamily and an elimination of the health club and less retail and restaurant space. The health club, retail and restaurant uses have higher trip generation rates than office, multifamily and daycare uses. In addition, the complimentary land uses (daycare, retail, office and apartment) combination generate higher internal shared trips which lessens the net new trips. Those two factors resulted

in same PM peak hour trip generation even though the overall floor area is greater than what was approved in the SEPA Addendum.

Table 2. Trip Generation Comparison

|                       | <b>Daily<br/>Trips</b> | <b>AM Peak<br/>Hour<br/>Trips</b> | <b>PM Peak<br/>Hour<br/>Trips</b> |
|-----------------------|------------------------|-----------------------------------|-----------------------------------|
| <b>Current</b>        |                        |                                   |                                   |
| Primary Trips         | 13,270                 | 1,276                             | 1,515                             |
| Pass-By Trips         | 1,970                  | 78                                | 164                               |
| <b>Total Trips</b>    | <b>15,240</b>          | <b>1,354</b>                      | <b>1,679</b>                      |
|                       |                        |                                   |                                   |
| <b>SEPA Addendum</b>  |                        |                                   |                                   |
| Primary Trips         | 13,760                 | 1,168                             | 1,476                             |
| Pass-By Trips         | 2,390                  | 100                               | 204                               |
| Total Trips           | <b>16,150</b>          | <b>1,268</b>                      | <b>1,680</b>                      |
| <b>Net Difference</b> | <b>-910</b>            | <b>+149</b>                       | <b>-1</b>                         |

