

### The City of Marysville Traffic Worksheet and Traffic Study Requirements for Developments in Snohomish County

The City of Marysville, through an interlocal agreement (ILA) with Snohomish County, may request traffic mitigation measures from any new development in the unincorporated county that impacts the city’s streets. The county will impose the requested mitigation measures to the extent that the county determines that the mitigation is reasonably related to the impacts of the development. To determine the impacts, and to determine reasonable mitigation measures, Snohomish County requires a traffic study from any development in the county that may have impacts on the city’s streets. This ‘traffic study’ may be as simple as completing sections one and two of the city traffic worksheet below, or having a professional traffic engineer conduct a formal traffic study consistent with the requirements in section three below.

- If a development generates less than ten peak-hour trips and the applicant chooses Option A for mitigation payment (standard payment by percent of the city impact fee), then the applicant will generally only have to fill out the first two sections of this traffic worksheet and complete a mitigation offer (see section four).
- However, if a development generates more than ten peak-hour trips, or if the applicant chooses Option B for mitigation payment (comprehensive impact analysis), then the applicant will have to fill out the first section of this worksheet, complete a separate traffic study consistent with the requirements in section three, and complete a mitigation offer (see Section Four).
- Applicants should submit all documents *to the county* as part of their initial submittal.
- Traffic study requirements for impacts on city streets are based on the city’s traffic mitigation ordinance and the county/city ILA. At the end of this document the address of the County web site is shown at which copies of the ILA are available.
- Following review of the documents submitted, the city may request supplemental information and analysis as necessary to determine the impacts of the development in accordance with the county/city ILA. The county will require the proposed development to submit the supplemental information and analysis to the extent that the county determines that it is necessary to determine the impacts of the development.

#### Section One (1) Worksheet General Information

- Name of Proposed Development \_\_\_\_\_  
County Development File Number (if known)\_\_\_\_\_
- Name, Address and Phone Number of Applicant \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Development Site Address \_\_\_\_\_  
\_\_\_\_\_
- Does this development have frontage on a City street? \_\_\_\_\_
- Description of Development (size and specific type) \_\_\_\_\_  
\_\_\_\_\_
- How many new vehicle trips are expected to be generated by the proposed development? (For many common types of developments this information can be provided by the county or the City. For more complex developments trip generation may have to be determined under section three below)  
\_\_\_\_\_ AM Peak Hour \_\_\_\_\_ PM Peak Hour \_\_\_\_\_ Average Daily Trips (ADT)
- Proportionate Share Impact Mitigation: Choose option A or B.  
\_\_\_\_\_ Option A based on standard payments by percent: go to section two  
\_\_\_\_\_ Option B based on comprehensive impact analysis: go to section three

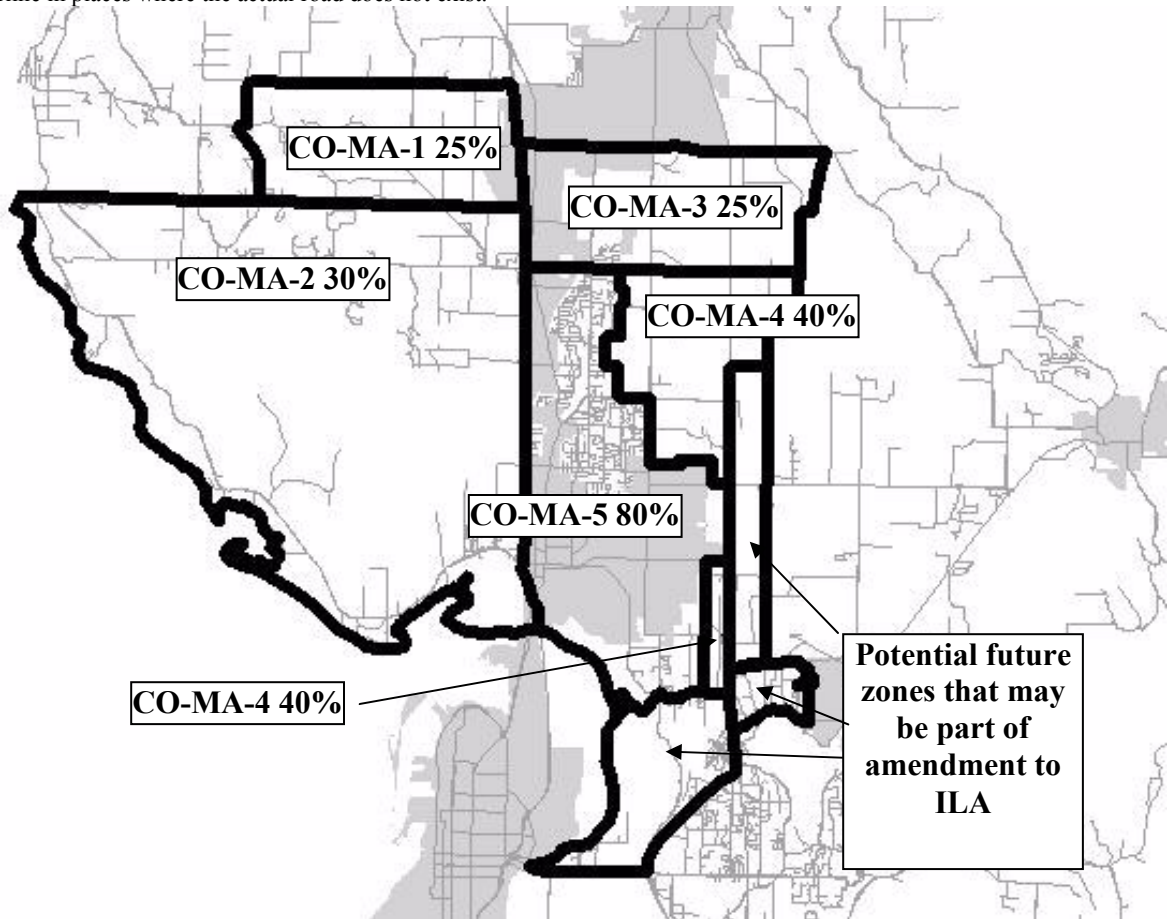
**Section Two (2) Proportionate Share Determined by Percentage of the City Impact Fee**

**2(a) Calculation of Payment Amount**

1. Standard default estimated percentage of trips impacting the City streets based on subareas (See below) \_\_\_\_\_ % or 2. Other Percentage: (Note: See author’s qualifications in section three below.) Estimated percentage of trips impacting the city streets from attached trip distribution: \_\_\_\_\_ %

Sub-Area ID#	**County Sub-Area Description	Residential Developments	Commercial Developments
CO-MA1	West of I-5, north of the east-west line that runs between Sections 29 and 32 of Township 31 North, Range 5 East, south of 188th ST NW, east of 40th AV NW/ E Lake Goodwin Road/ 46th AV NW.	25%	25%
CO-MA2	West of I-5 and south of the east-west line that runs between Sections 29 and 32 of Township 31 North, Range 5 East.	30%	30%
CO-MA3	East of I-5, north of the east-west line that runs between Township 30 North and Township 31 North, and south of SR 531.	25%	25%
CO-MA4	East of I-5 and south of the east-west line that runs between Township 30 North and Township 31 North AND outside the Marysville urban growth area.	40%	40%
CO-MA5	East of I-5 and south of the east-west line that runs between Township 30 North and Township 31 North AND inside the Marysville urban growth area.	80%	80%

\*Note: When a roads is shown as a boundary, the boundary is either the centerline of the road itself or a straight extension of the road centerline in places where the actual road does not exist.



3. PM Peak-Hour Trip Generation \_\_\_\_\_ 4. City Impact Fee Rate \$ \_\_\_\_\_  
 (Note: Consistent with the ILA, developments pay the rate in effect at the time of their submittal. As of 1/1/06 the rates were \$3,175 per PM peak-hour trip. Through ordinance, the City Council can change these rates at any time, so consult with the City to find the latest fee rates.)

**5. Calculation of Proportionate Share Impact Mitigation**

$$\frac{\text{\#1 or \#2 above: \% of trips}}{\text{\#1 or \#2 above: \% of trips}} \times \frac{\text{\#3 above: PM Peak-Hour Trips}}{\text{\#3 above: PM Peak-Hour Trips}} \times \frac{\text{\#4 above: Fee Rate}}{\text{\#4 above: Fee Rate}} = \$ \text{proportionate share mitigating payment}$$

**2(b) Determining whether or not an additional traffic study is necessary**

Will the development generate more than 10 peak-hour trips *or* are there other impacts that need to be addressed (e.g., level of service, safety, or access and circulation)

\_\_\_\_\_ No. Skip section three and go to section four.

\_\_\_\_\_ Yes. Read the introduction to section three and skip to section 3(b).

**Section Three (3) Traffic Study Requirements**

Introduction: This section outlines requirements for traffic studies for impacts on city streets. If an applicant chooses (or is required) to complete a traffic study, then it should be submitted along with this worksheet and a mitigation offer. (Note on Author’s Qualifications: A traffic study under this section must be conducted by an engineer licensed to practice in the state of Washington with special training and experience in traffic engineering and, preferably, membership in the institute of transportation engineers. For individuals/firms not on the County’s approved list, the developer will provide, with the traffic study, the credentials of the individual or firm performing the traffic study certifying compliance with these qualifications.)

**3(a) Proportionate share impact mitigation based on comprehensive impact analysis:**

1. Development’s Trip Generation and Distribution. Determine the PM peak-hour trip generation and distribution for the development consistent with Section 3(b) below.
2. Impacted Improvements. Determine which of the street sections with planned improvements in the city’s impact fee cost basis are impacted by three or more development-generated, directional PM peak hour trips (PM PHT).
3. Current Counts. For each impacted improvement, provide current traffic counts to determine the PM PHT.
4. Reserve Capacity. Determine “reserve capacity” for each impacted improvement by subtracting the current PM PHT from the maximum service volume (MSV) for the existing facility. Reserve capacity is set to zero if current PM PHT exceeds the MSV.
5. New Capacity. New capacity is the incremental increase in PHT that could be accommodated with the planned improvement. Determine the new capacity of each impacted improvement by subtracting the current MSV from the future MSV after the improvement.
6. Chargeable Capacity. For each impacted improvement, add the reserve capacity to the new capacity.
7. Final Adjusted Cost. Find the cost of each impacted improvement and make any adjustments used by the city for tax credits.
8. Capacity Cost per Peak-Hour Trip. For each impacted improvement, determine the capacity cost per PM PHT by dividing the final adjusted improvement cost by the chargeable capacity.
9. Traffic Impacts. From step one above, take the number of non-directional PM PHT impacting each planned improvement.
10. Proportionate Share. For each impacted improvement, determine the proportionate share impact mitigation by multiplying the capacity cost per peak-hour trip by the number of PM PHT impacting the improvement.

**3(b) Trip Generation and AM and PM Peak Hour Trip Distribution and Assignment**

Calculate AM, PM and Daily trip generation consistent with the ITE Trip Generation Handbook and the Snohomish County Public Works Rules. Determine the trip distribution and assignments consistent with the County’s document titled “Format for Trip Distributions”(available at the County web site, see below).

- The distributions will be carried out to each key intersection in the city at which the approach or departure volumes on any leg have three (3) or more peak hour trips. Trips should be distributed onto the street system as it is expected to be in six years.
- The distribution should be a schematic map showing the broad distributions of trips in terms of percentages on different streets. Show all County boundaries.
- The assignment should be a schematic map with the impacted key intersections identified and turning movements for each shown in separate diagrams on the same page or on different pages. The assignment should also be presented in tabular form listing each intersection and the number of trips at each movement.

**3(c) Additional Analysis**

The City may request mitigation for impacts on the level of service of city streets, documented safety locations, frontage improvements and access or circulation. The traffic study requirements below are intended to disclose impacts. Based on this information the city may request through the county that the applicant provide additional information showing possible mitigation measures. If any off-site improvements were needed for mitigation the city would work with the applicant to determine requirements for right-of-way, construction plans, right-of-way use permits, construction/maintenance bonds, and other issues.

### **Impacts on Level of Service (LOS) of City Intersections for Developments Generating More Than 50 Peak-Hour Trips**

Contact City of Marysville Public Works for the most current list of intersections with failing level of service. Identify any of these intersections impacted by three or more directional peak-hour trips.

### **Impacts on Documented Safety Problem Locations**

Contact the City of Marysville Public Works for a list of current locations with documented safety problems. Identify any of these locations impacted by three or more peak-hour trips. Note: unlike LOS impacts in which at least three or more peak hour trips have to be added in one direction to require disclosure (e.g., 3 westbound), for documented safety problems, any three peak hour trips added to a documented safety problems location is considered an impact for which disclosure is necessary. (e.g., 2 westbound plus 1 eastbound).

### **Impacts on Access or Circulation**

The City may request improvements to existing streets to provide safe and efficient access and/or circulation. In some instances, the City might request provisions for future City streets identified in the Transportation Element of the Comprehensive Plan or in the City's adopted map of proposed connections (See also Exhibit 4 in ILA). If so, the City will request specific additional information through the County.

### **Frontage Improvements, Right of Way, and Access Point Requirements**

Any county development which takes access from a city street or fronts on the right-of-way of the city may also be required to provide frontage improvements, dedicate or deed right-of-way, and meet access-point requirements consistent with city standards. If this may be the case, provide appropriate analysis and documentation to enable a determination by the city and the county as to what standards and requirements to apply.

### **Section Four (4) Traffic Mitigation Offer to the City of Marysville**

The applicant should complete a traffic mitigation offer to the City of Marysville that summarizes the mitigation identified in the City traffic worksheet and any additional traffic study. This will facilitate timely review of the development and processing of the application. The form to use for the mitigation offer is titled "Traffic Mitigation Offer to a City by a Development in the Unincorporated County." This form is typically provided to all applicants along with this traffic study checklist. In addition, copies are available from the City contacts or the County web site shown below.

### **City Contact**

- Gloria Hirashima, Planning Director, City of Marysville, 80 Columbia Avenue, Marysville, WA 98270, (360) 651-5100 County Web Site

### **Additional Information**

Snohomish County Public Works has a web site with many of the documents related to traffic studies and mitigation requirements for developers. From the Snohomish County home page go to:

Departments/Public Works/Divisions/TES/ProgramPlanning/3066B