

Lab 2 – Heat Loss Study for a Victoria Condo

A friend of mine just purchased a condo in James Bay (Victoria Downtown). He would like to do some renovations to the space. Some of those renovations include reworking the heating system. The first job that needs to be done is a fairly accurate heat loss study. The study needs to be done in two ways.

First ... What is the room-by-room and total condo **heat loss rate (kW)** of the existing space? From the photos and floor plan some judgements can be made about the style of construction and the amount of insulation in the walls (none). We will detail this in the lab class and discuss how to make assumptions.

Second ... If he were to re-insulate the inside walls with an extra 1.5” styrene board insulation and new vapour barrier, what would the new room-by-room and total condo **heat loss rate (kW)** be?

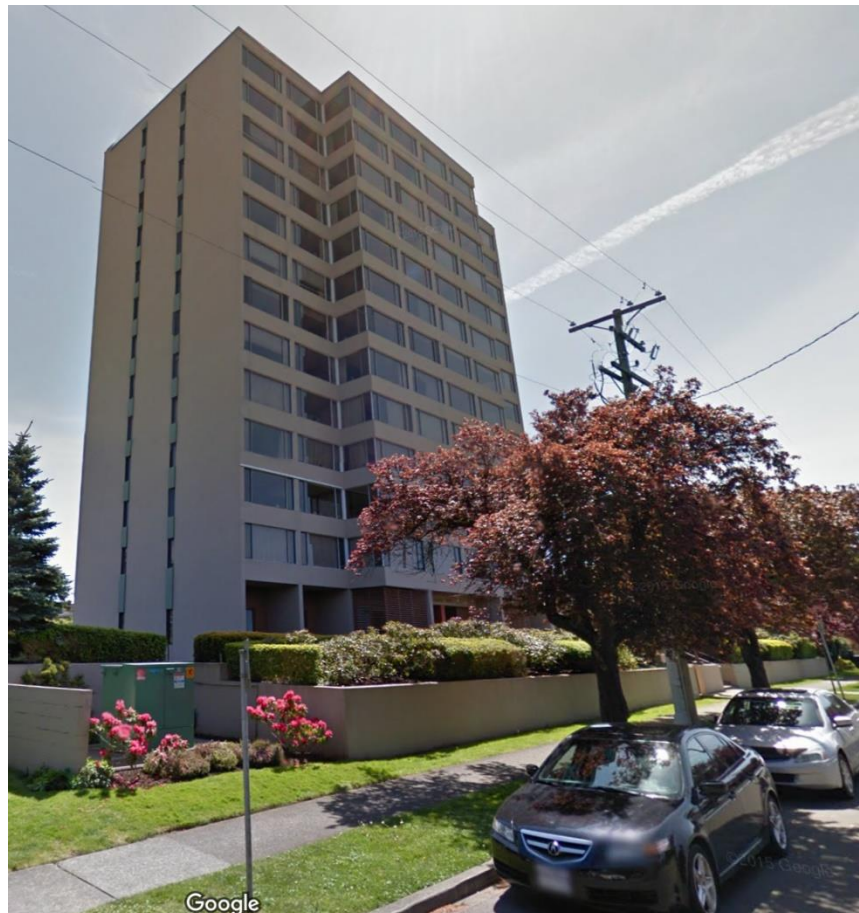
Here are a few facts:

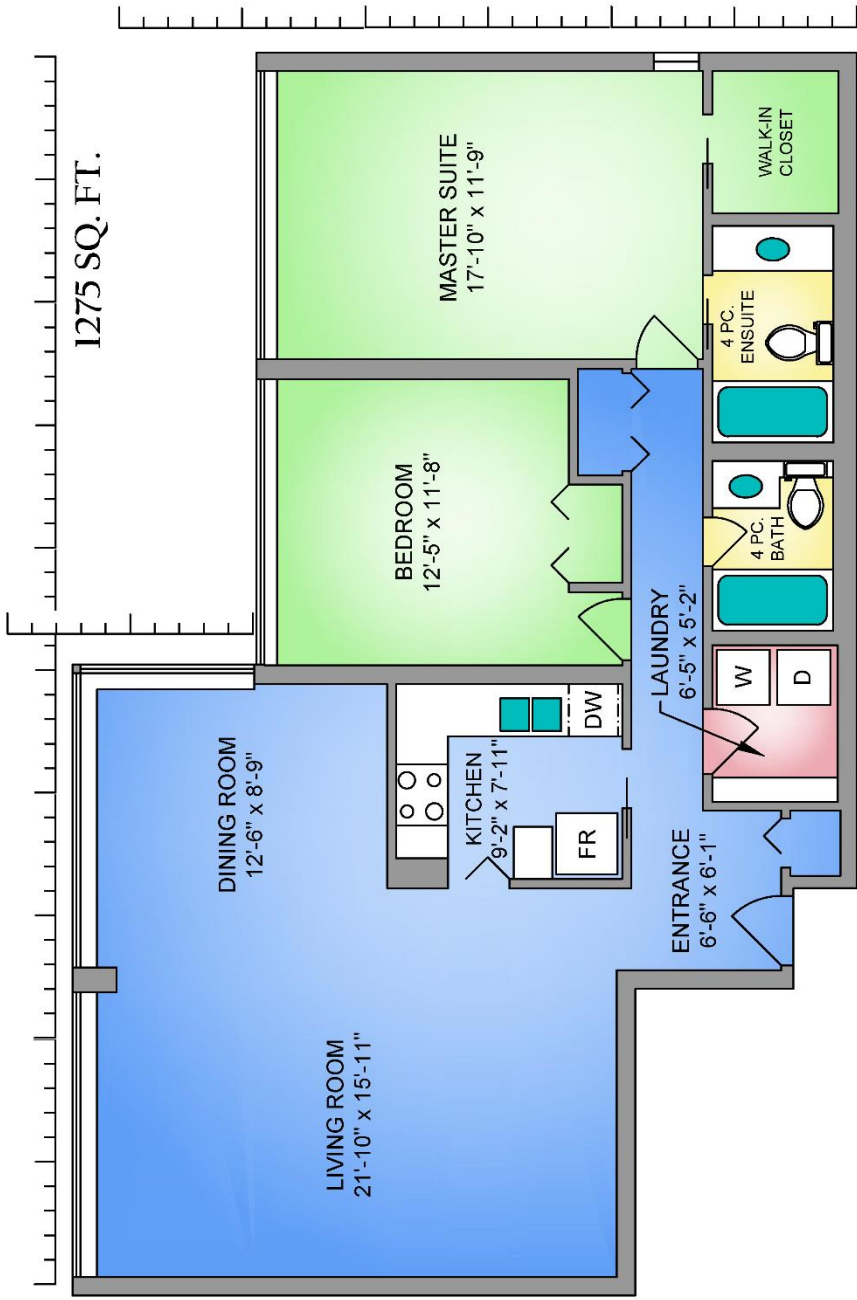
- The building was built in the 1970’s. As with cars, the 70’s was a bad period for both building design and building insulation.
- The windows are newer but we will have to make a judgement as to how new and of what kind they are based on the photos.

Report

Hand in a complete set of clearly laid out heat loss rate calculations for each of the two insulation scenarios. Base your organizational style on the Building Heat Loss Example reviewed in class and provide a source reference for each of the building materials data you used.

A building floor plan and a few important photos follow on the next two pages.





JANUARY 27, 2017	
PREPARED FOR THE EXCLUSIVE USE OF	
PLANS MAY NOT BE 100% ACCURATE. IF CRITICAL BUYER TO VERIFY.	
FLOOR	AREA (SQ. FT.)
	FINISHED

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(From another, but similar, condo in the same building.)