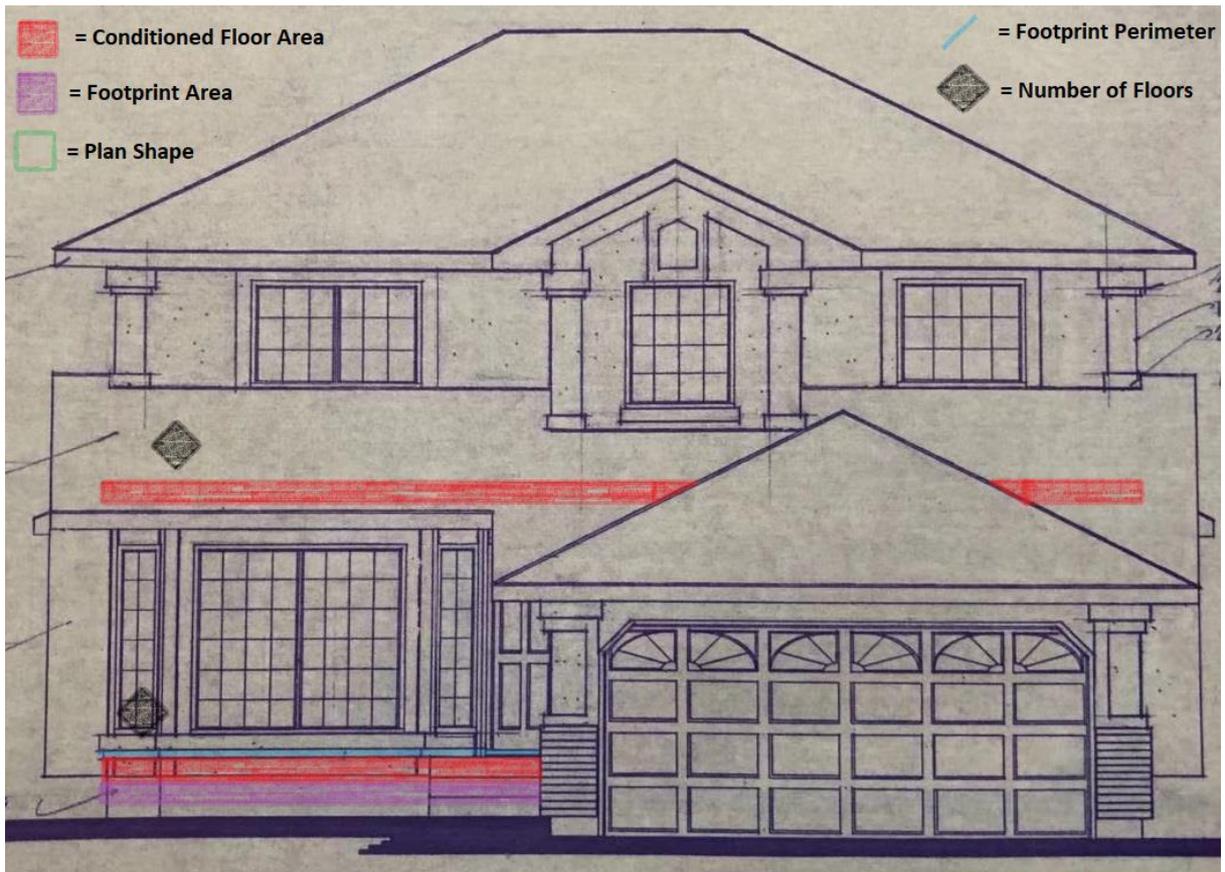
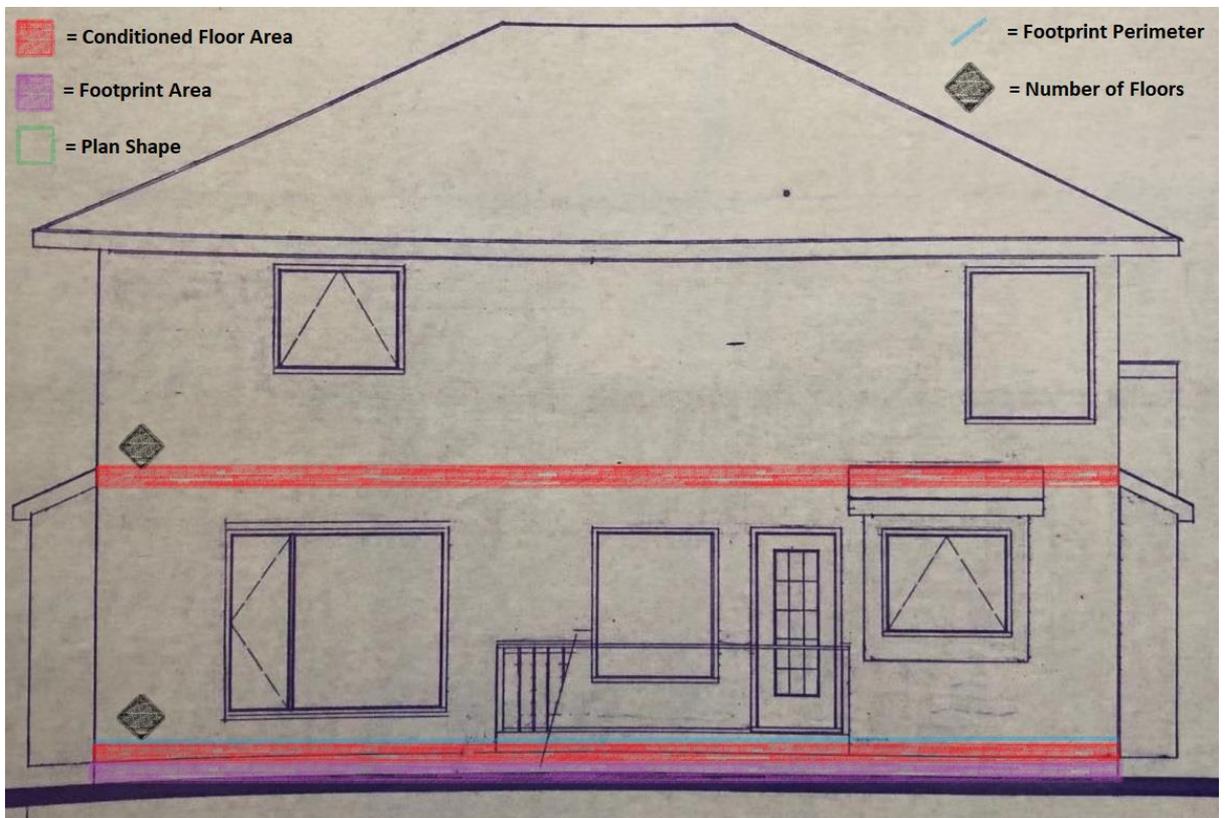


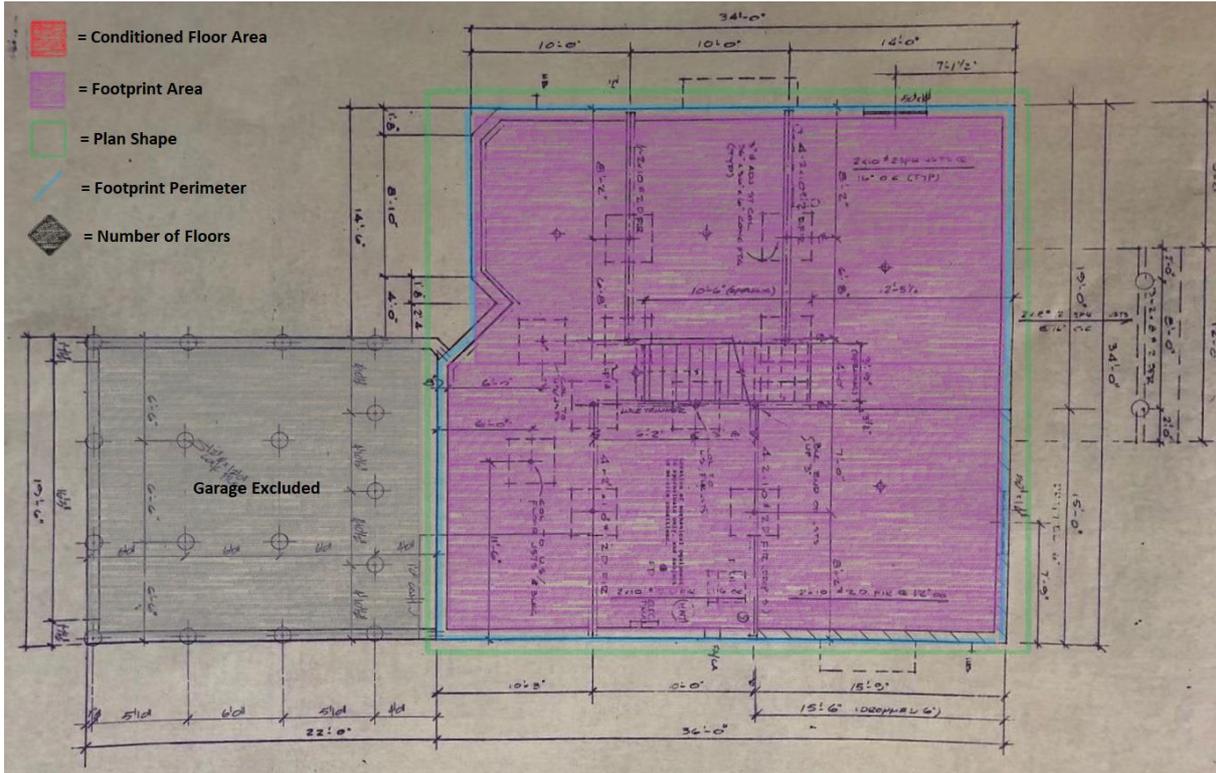
a)



b)



c)



d)

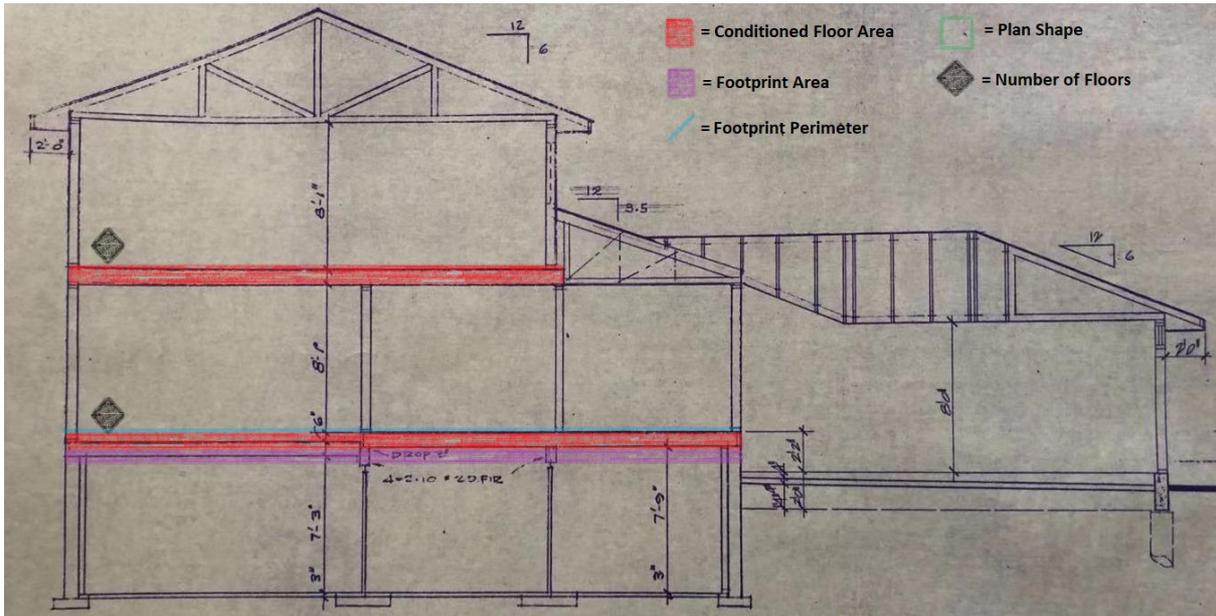


Figure A1(a-d). Architectural drawings of case study Edmonton home, with physical characteristics annotated.

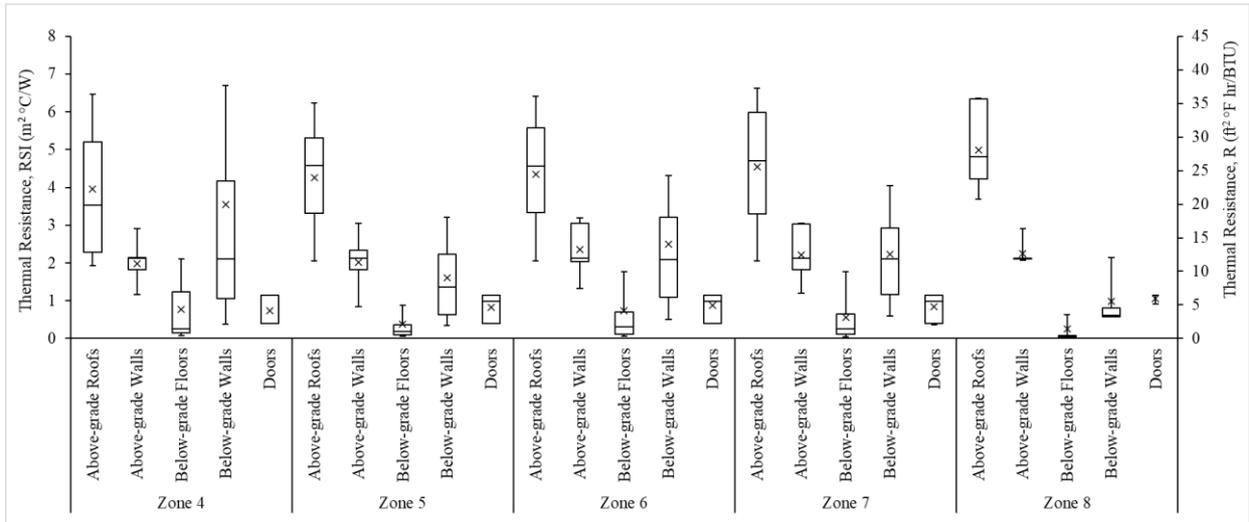


Figure A2. R-values of exposure components listed in the CSDDRD database. Boxes represent the 25th, 50th, and 75th percentiles; the whiskers represent the 10th and 90th percentiles, x marks the mean value.

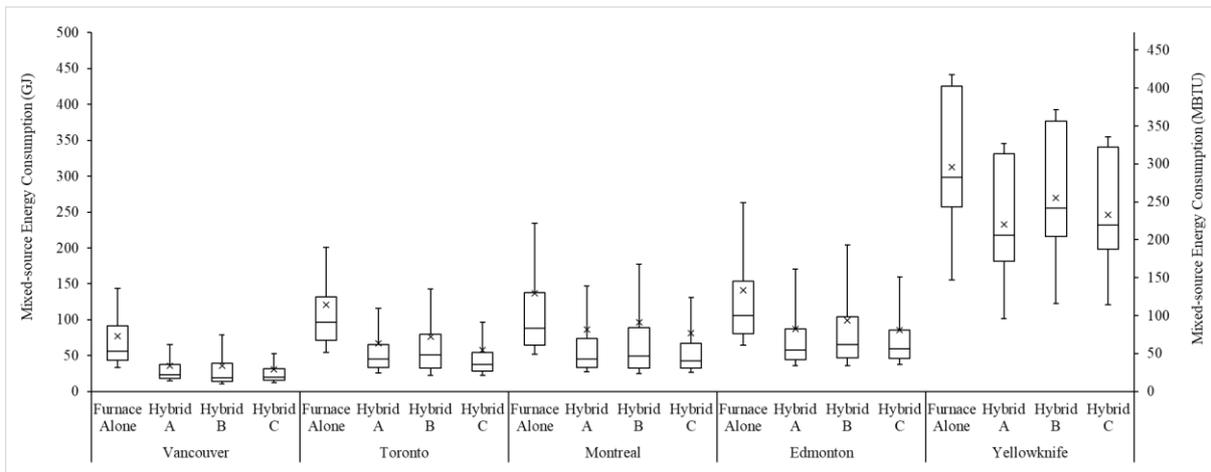


Figure A3. Annual space heating mixed-source end-user energy consumption of a single-detached home using different heating systems: furnace-alone system, hybrid A, hybrid B, and hybrid C. Boxes represent the 25th, 50th, and 75th percentiles, the whiskers represent the 10th and 90th percentiles, x marks the mean value.

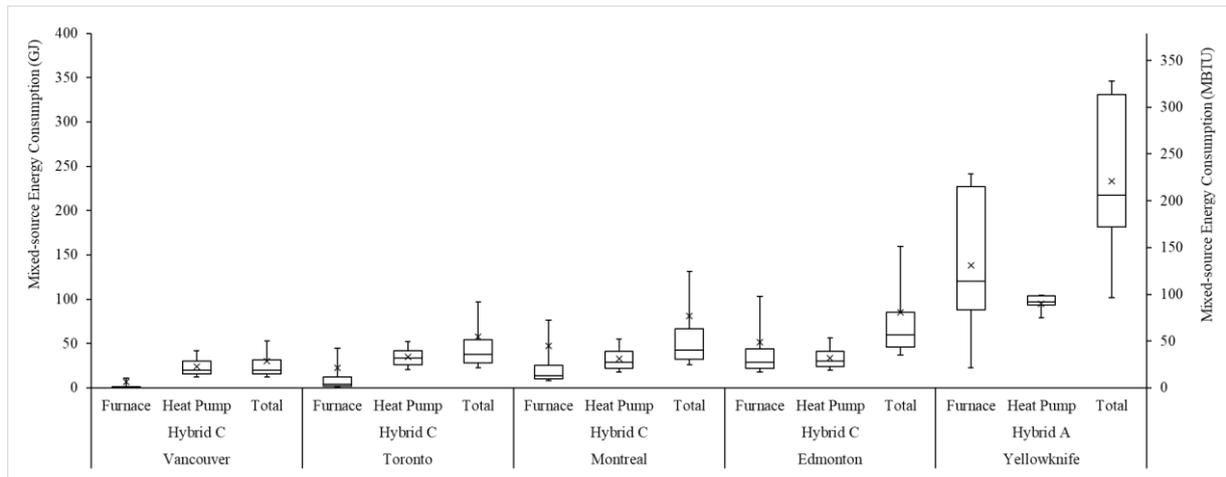


Figure A4. Breakdown of annual space heating mixed-source end-user energy consumption of a single-detached home using the best hybrid system in each city (natural gas furnace/ASHP-C in Vancouver, Toronto, Montreal, and Edmonton; oil furnace/ASHP-A in Yellowknife). Boxes represent the 25th, 50th, and 75th percentiles; the whiskers represent the 10th and 90th percentiles, x marks the mean value.