To the Design Panel,

Thank you for taking the time to review my submitted design. Below is a brief explanation of my design rationale and why this design would be a great fit for many property owners in the North Okanagan.

Meeting the design criteria for any secondary dwelling always comes with an array of challenges. For this project, a few more challenges were added to the mix. A large part of my design direction is most often related to the site that the building will be a part of. Urban and Rural settings always pose their own distinct benefits and limitations, but for this project, the prime difficulty involves trying to create a building that can fit into both contexts. A 4.5m height limitation is certainly a limiting factor for aesthetics, but not insurmountable. The $90m^2$ footprint is also an important consideration, but not one that prevents a quality home from being designed.

My design rationale for this particular project was based on the following 4 pillars. *Simplicity, Efficiency, Flexibility & Affordability*. A 5^{th} pillar – *Sustainability*, is not noted because I believe it to be an integral part to each of the other 4.

Simplicity: Some believe in form over function, or perhaps in function over form. I believe that a simple form is often the best way to achieve good function. This building is a simple rectangle with a low-slope gable roof. It doesn't get more basic when it comes to a building form, but with the right choice of finishes that relate to the site and neighbouring buildings, that form can be quite attractive. The owner is also not "shoe-horned" into a single layout or aesthetic because of a complex building form.

Efficiency: Again, related to form, the simple shapes used on this building are the most effective way to eliminate difficult construction details. With modern building codes and the ever-increasing importance given to the continuity and tightness of the building envelope, this building will be much easier than most to achieve a high level of quality and code compliance without the need for unique construction practices. This particular plan also utilizes space very well and while all spaces are generous, they are not wasteful. A common omission in many secondary homes is the lack of a decent, functional entry way. In my opinion, the covered front porch and entry foyer in this plan allows the kitchen and living room to be free of the clutter that comes with coats and shoes. On a different note, the simple roof lends itself well to solar collection. Paired with an air-source heat pump, this 880 square foot building could be heated and cooled very efficiently. Generous 30 inch eave overhangs also help reduce solar gain during the hot summer months, thus a minor passive-solar approach.

Flexibility: 2 bedroom, check. 1 bedroom+den, check. In addition to the optional layouts that are shown on the plans, there are multiple minor revisions that could make a world of difference to meet an owners' wishlist. If a slab-on-grade construction is preferred, the stacked laundry could swing around to be accessed in the bathroom, with the laundry room then becoming a designated mechanical/storage room. Storage (at least long term/seasonal

storage) is currently accommodated in the crawl space. In regard to re-organizing the floor plan, the living room and kitchen could easily be swapped if the owner would prefer to enter the common space in the living room. This also lends itself to a different kitchen window location if it works better for the site and privacy of neighbouring buildings. On that note, each bedroom window can also be re-located to accommodate privacy issues as well as limiting distance/unprotected opening calculations (for buildings located close to property lines.) Lastly on the flexibility front, this building can be dressed up on the exterior to create a number of different aesthetics. Although that can be said for a lot of buildings, this one in particular can be a bit of a chameleon. The low slope roof easily lends itself to a modern/contemporary aesthetic as well as be relatable to so many urban streetscapes that were constructed mid-century in our area. With a bit more detail such as knee braces and eave purlins, the house can also blend well with Arts & Crafts or Craftsman detailing.

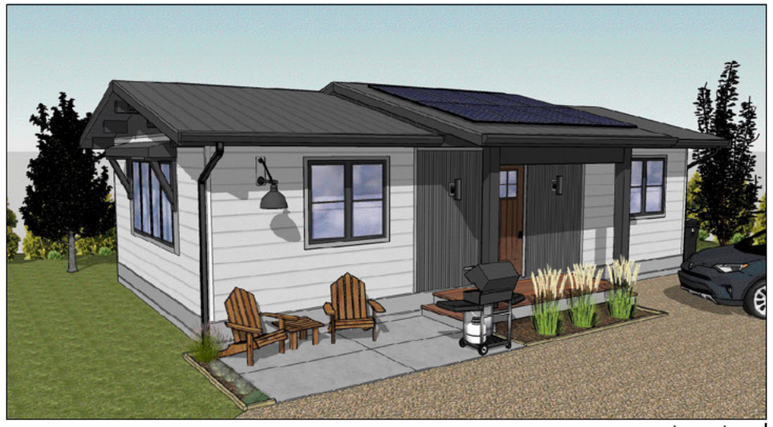
Affordability: I believe this relates back to many of the previously mentioned aspects. With the use of common, low maintenance exterior materials and simple forms, cost for construction and long-term maintenance are minimized. I have located extremely resilient and virtually zero-maintenance steel siding on the hard-to-reach upper gables and at the entry porch where there is more wear & tear. If there is a recommended splurge on a building material, it would be on the roof. A standing seam metal roof is a "forever" roof and with the potential of this building being located in significant wildfire prone areas, it could almost be viewed as necessary. From a structural cost perspective, this foundation has four corners and the floor system can be supplied as free-spanning or with a central bearing wall within the crawl space. The contractor can determine market costs at the time of construction and confirm this choice. The design is shown with a nominal 9 foot ceiling to promote a bit more volume in the spaces and to align with a more modern expectation. However, if an owner is looking to trim as much cost as possible, they could opt for 8 foot wall construction. This will result in savings on lumber, drywall, insulation as well as smaller window sizes. Upfront cost could be further mitigated by replacing the cement fibre and steel siding with vinyl products. Unfortunately, those products may not stand up to the test of time with as much success. All in all, it is in my opinion that this is a very cost-effective building to build and maintain.

I don't have a background in estimating, so trying to perform an accurate take-off for this building might not be in anyone's best interest. With that said, my experience in the construction industry tells me that with the aforementioned aspects of this building, it would likely come in at the lower end of the industry average. If the average is indeed $200-$250 per square foot in the North Okanagan, I would feel confident that this build would likely be slightly above the $200/square foot mark. At 880 square feet and around $215, the bottom line would be right around $190k. With the covered porch and a few extras for finishing, $200k should be reasonable.

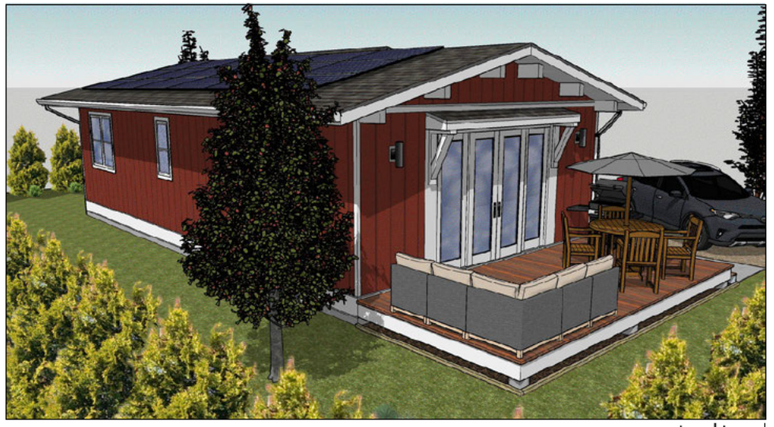
In closing, I believe that as much as this building would be a pleasure to live in, it would also be simple to build.

simplicity - efficiency - flexibility - affordability

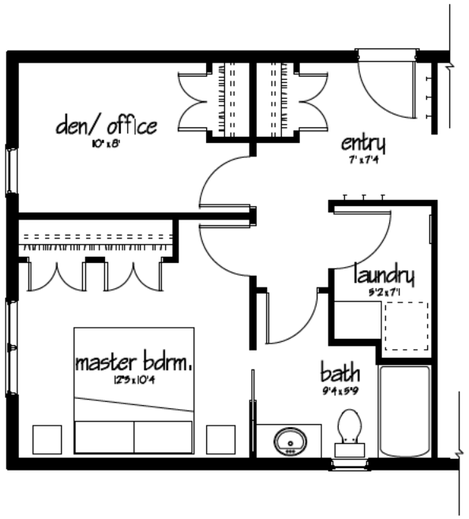
contemporary



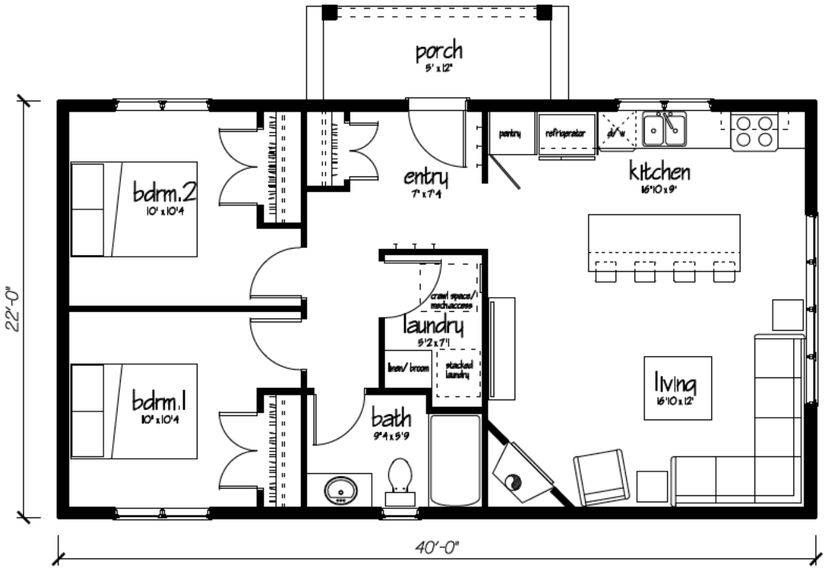
transitional



traditional



master bedroom option



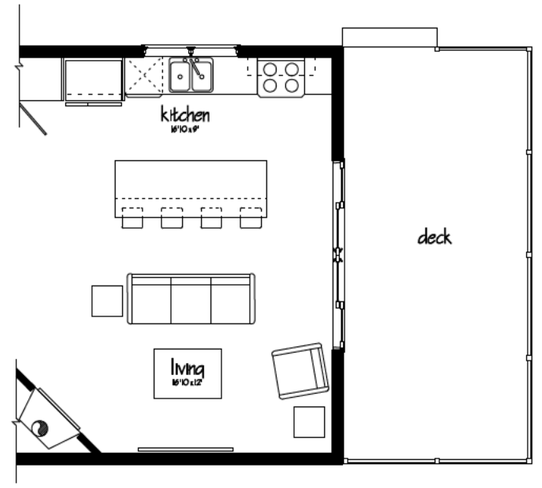
suite floor plan

880 sq.ft. main floor

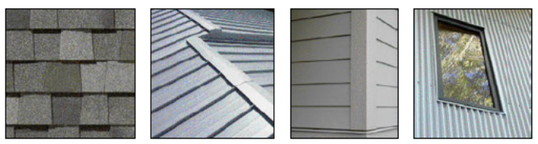
60 sq.ft. covered porch

940 sq.ft. total (87.32 sq.m.)

14'-8 ½" building height (4.48m)

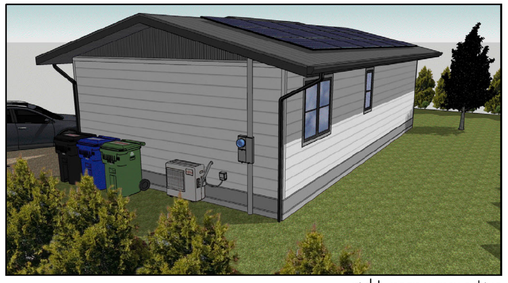


sliding door/ deck option



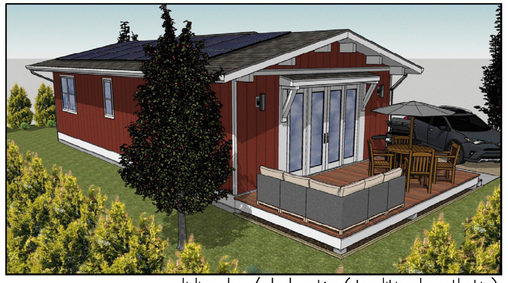
- standing seam metal roofing (opt. architectural asphalt)
- cement fibre siding c/ w matching corners
- 7/8" corrugated steel siding

North Okanagan Housing Design Competition - Single Storey Detached Secondary Residence

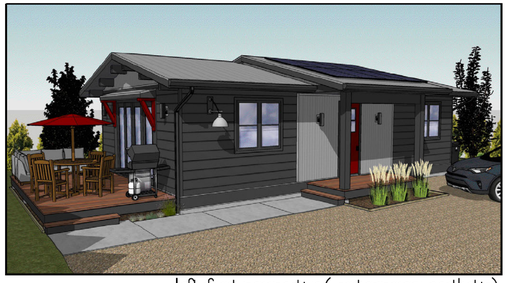


right-rear perspective

right-front perspective (transitional aesthetic)



sliding door/ deck option (traditional aesthetic)



left-front perspective (contemporary aesthetic)

[redacted]

5 A2 rear elevation
scale: 1/4" = 1'-0"

3 A2 left elevation
scale: 1/4" = 1'-0"

secondary dwelling

RDNO

23-01
16-MAR-2023
Anon.

exteriors & section/details

A2