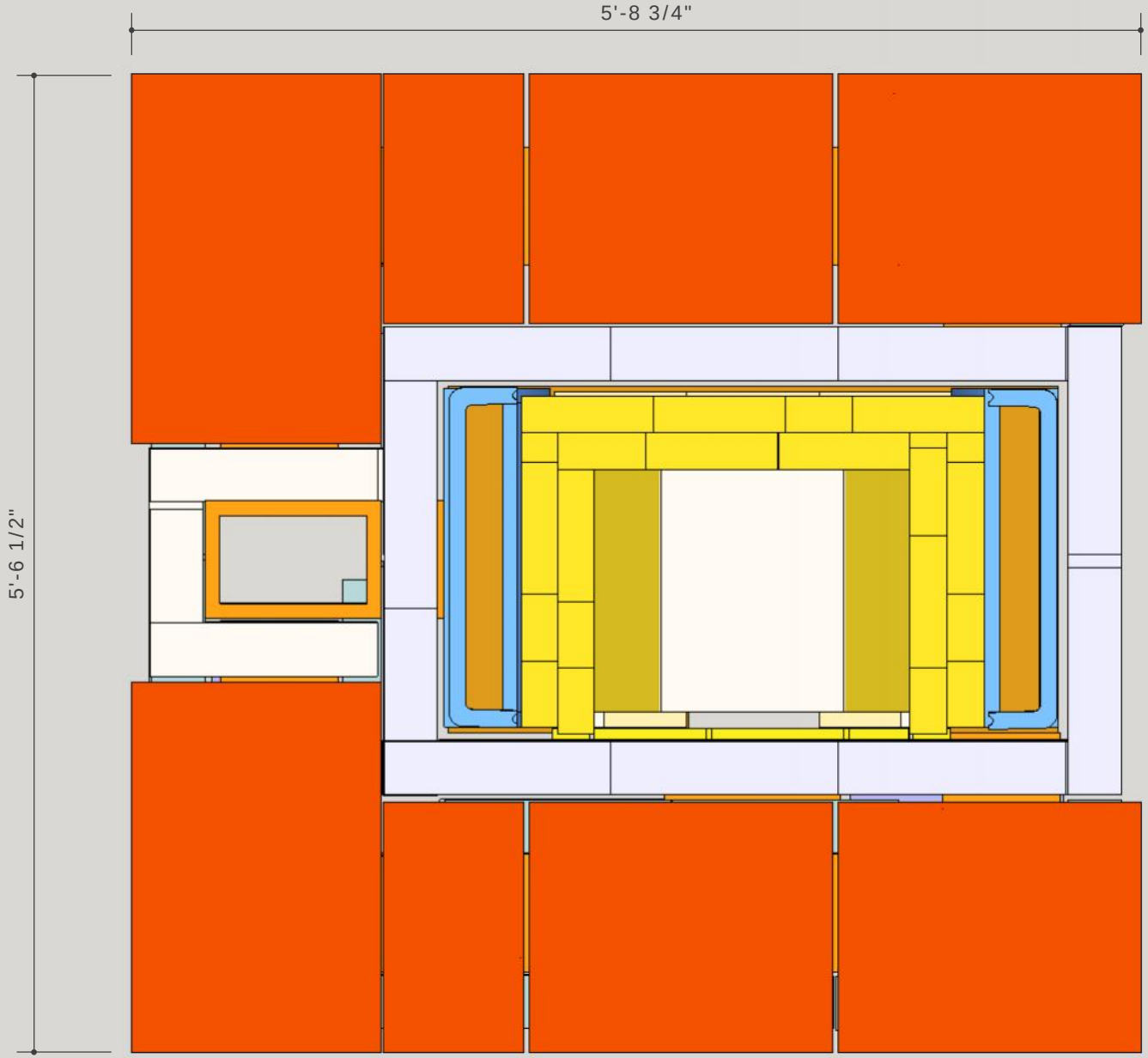
This is an example of using Layout, a presentation software that comes as part of Sketchup Pro. This is probably the main reason you might want to upgrade to Pro. The only other difference for 3-D heater design between Pro and free Sketchup is that it is easier to cut openings and notches into the masonry.

In Sketchup you build a 3D model of the heater. At MHA's annual meeting at Wildacres, technical committee member Boris Kukolj has been teaching a beginners Sketchup class for several years now. Even though I had been using Autocad for 25 years, I was not able to figure out the switch to Sketchup on my own. The MHA class showed me the basics I needed to get started with Sketchup, and I was amazed at how much easier it was for 3-D heater building than Autocad. I find it is about 5X faster to build a model.

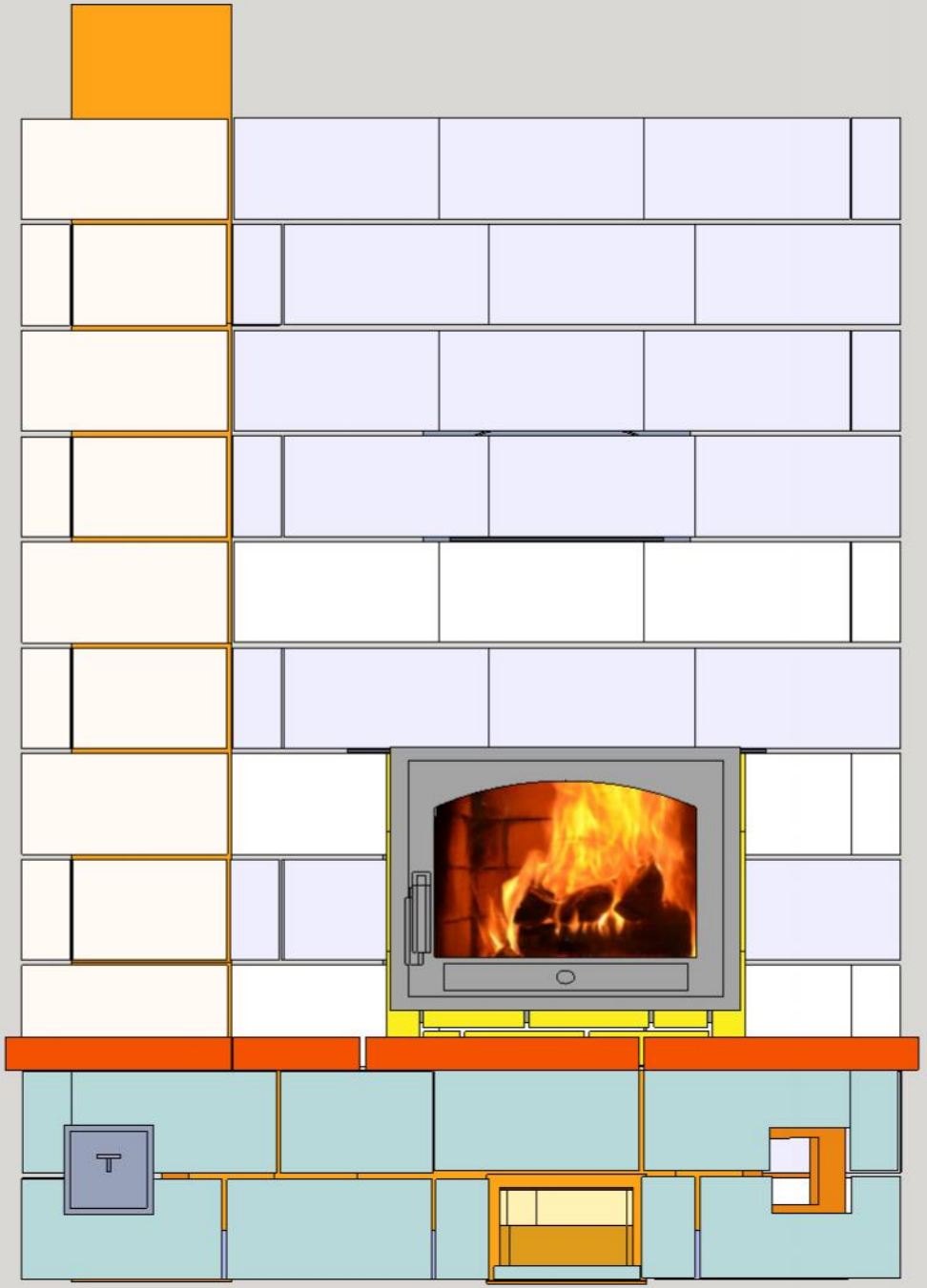
This makes it practical to build a custom model for clients when they order a heater core kit to be installed by a mason who has never done a masonry heater before. In this example, the client wanted a custom wraparound heated bench. I built the model in Sketchup, and then used Layout to prepare the assembly drawings for the mason.

When you page through this document, you are not looking at different drawings. Each page is a different view of exactly the same model. Different features such as layers and shadows are turned on or off to show various details. Each view is a different tab or "scene" in Sketchup, that retains the particular settings for that view.

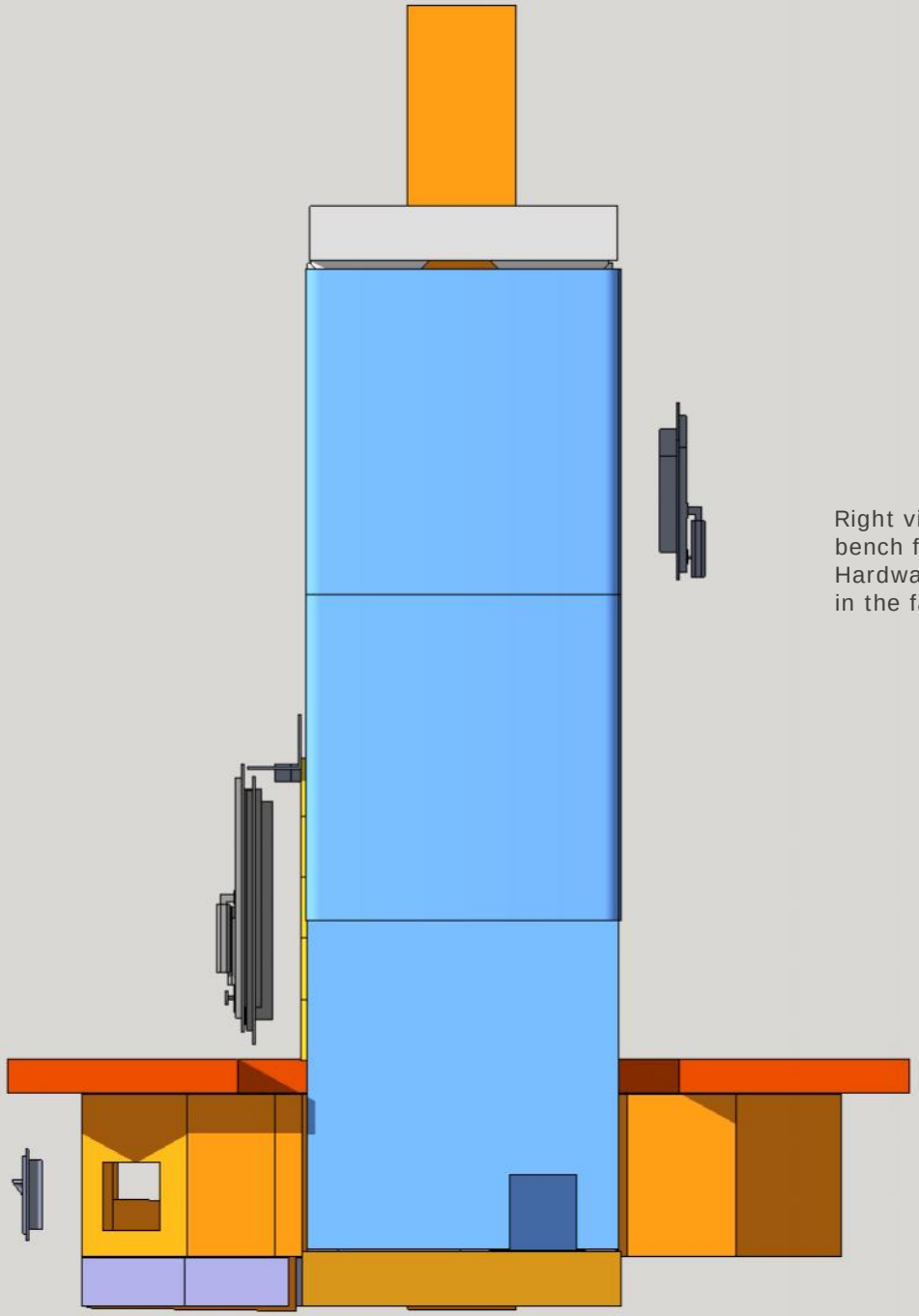
Therefore, in this document, you can make a change to the 3D model in Sketchup, and then you can have this Layout document update all the pages to show the change on each page, without having to redo any drawings. This feature is revolutionary, and is impossible to do in Autocad without manually redoing all the views.



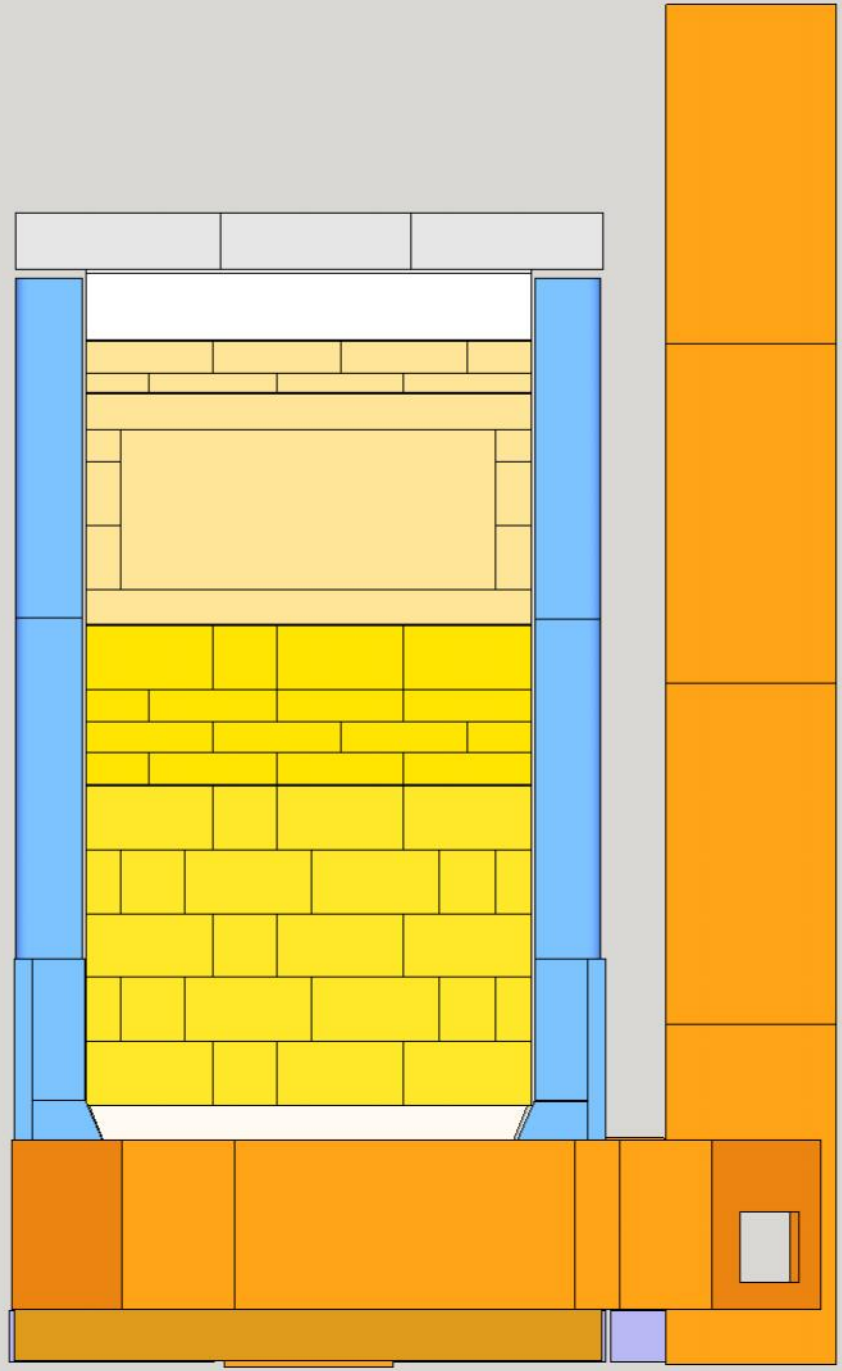
Plan view showing heater core internals, chimney location and heated bench capping slabs



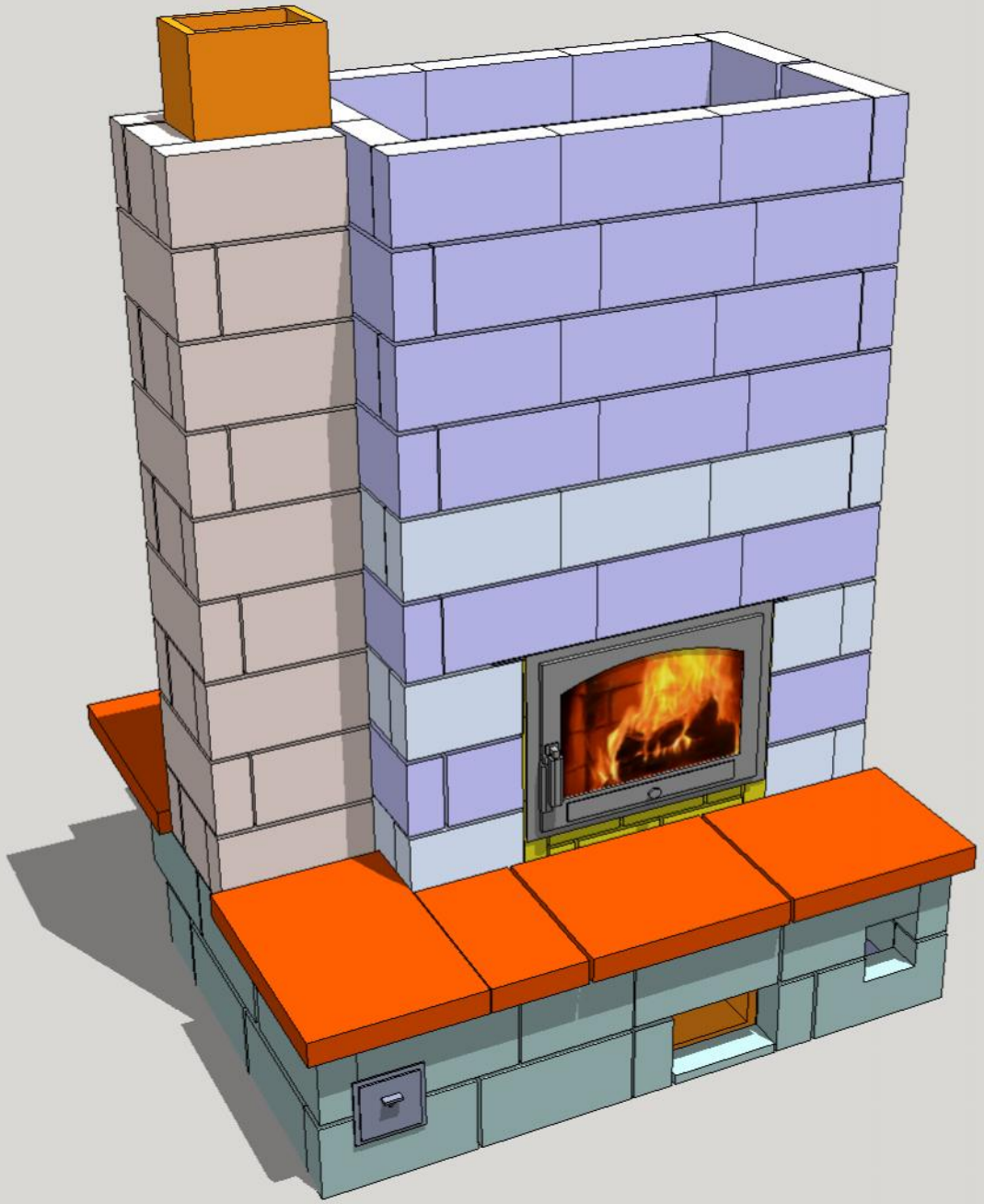
Front view showing facing location and opening for cleanouts and ash door.



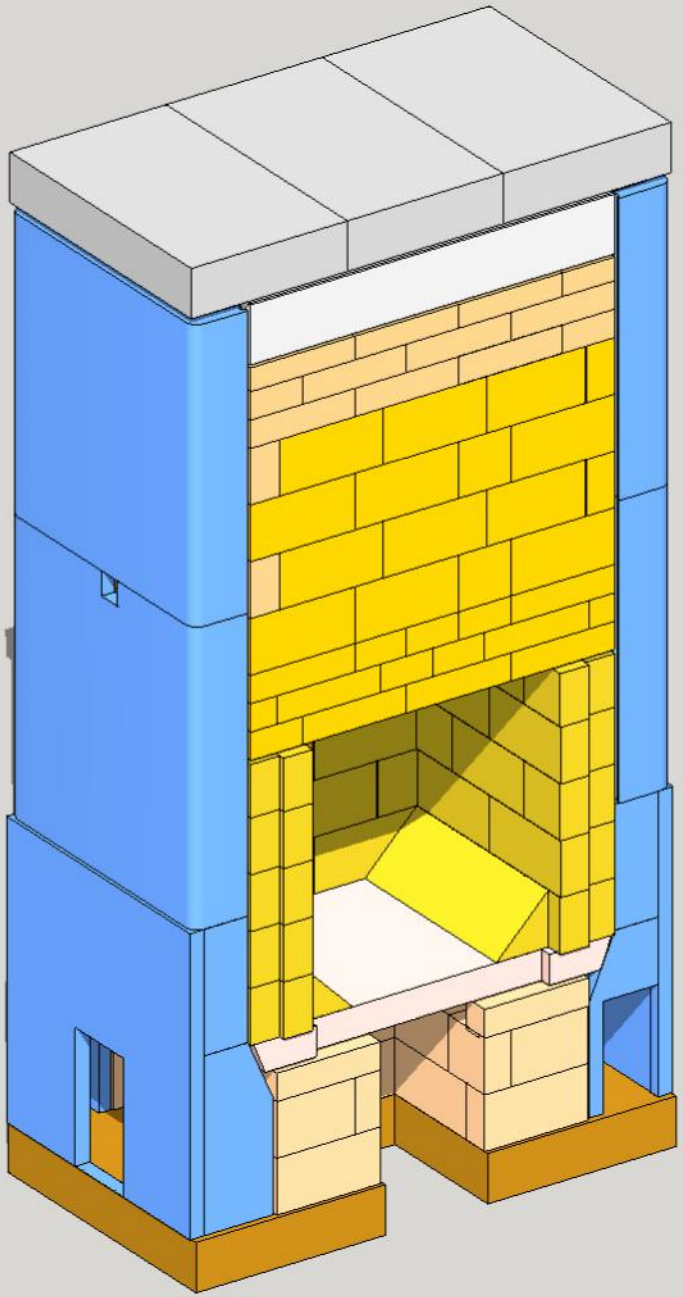
Right view showing core and location of bench flue liners and capping slabs. Hardware is shown where it will be located in the facing



Rear view showing core and bench and chimney flue liners

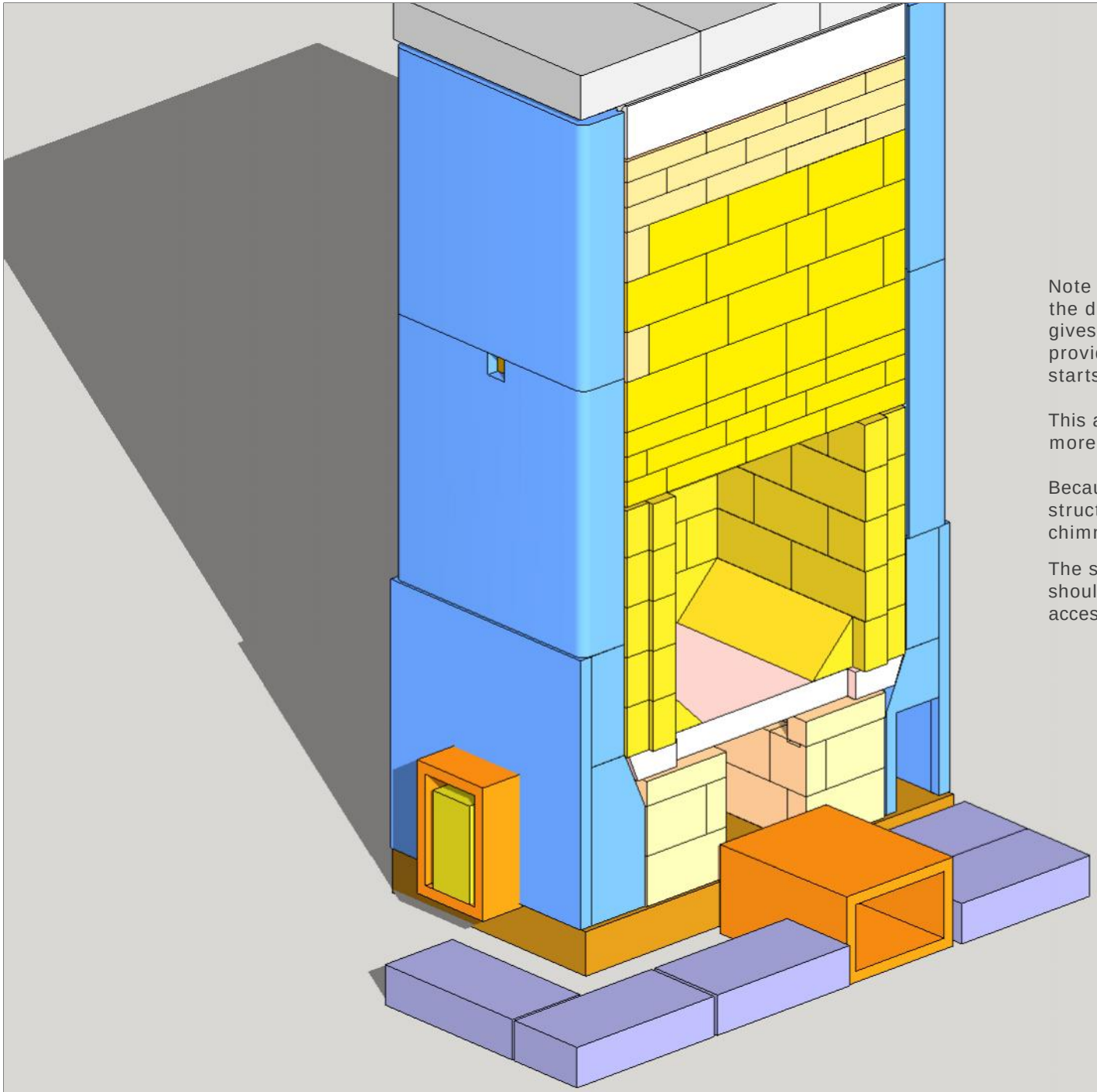


Isometric View



Location of cutouts in the heat exchange channels

Note that the insulating base slab is notched out to lower the ash space down to concrete slab level.



Note the loose firebrick that partially blocks the direct connection to the chimney. This gives more heat through the bench, yet provides some leakage to allow easier cold starts.

This also allows for tuning of the bench for more or less heat at a future time.

Because of the chimney location near a structural wall, it is not possible to provide a chimney cleanout for direct access,

The suggested cleanout locations therefore should be followed to provide the next best access.