A Complete Living Space

I would consider any living space to be complete, or "fully livable" if it has a:

- bed and/or a sleeping area. This can be dedicated or dual-use, as in a Murphy bed or a fold-out couch
- kitchen or kitchenette with at least a stove or cooktop, a sink, refrigerator and some food storage
- bathroom with a shower, toilet and sink. It must be separated from the rest of the living space by a wall with a door
- water heater of some sort
- place to eat a meal while sitting, such as a fold-out table or bench

It's debatable whether it needs a:

- "living room" space such as a lounge or sitting area.
- closet, although it should have some storage spaces.
- way to actively heat or cool the space.

It is absolutely possible to include all of these features (and more) in a well-designed 20' shipping container home.

Layout

The layout refers to the arrangement of any interior wall(s), the size of the bathroom, where to put the bed, organization of the various appliances, etc.

Ask yourself:

Do you want to design something simple for now, and be able to add more later?
Do you want to build a custom bed and furniture or install something from IKEA?
Does the bed need to be low, or can you elevate it and utilize the space underneath?
Do you want any components or spaces to be dual-use?
Do you want a kitchen space simply to make tea, or cook full meals?
How wide do the doors need to be?
Would a pocket door make sense for the bathroom?
Do you plan to heat and/or cool your container home? How?

The footprint of a 20' container is exactly 160 ft^2, but the interior square footage, once the walls and insulation are in place, will probably be more like 130-140 ft^2.

Once you start experimenting with different layouts, you'll probably realize that there are very few ways everything will fit together properly. It's all about finding balance through compromise. Your first thoughts are usually the best.

> "Perfection is achieved, not when there is nothing more to add,
> but when there is nothing left to take away."
>
> -Antoine de Saint-Exupéry

Walls and Ceiling

Like a standard house, the walls in a container home are made up of a sandwich of components: the container's steel side, studs and insulation, and interior paneling (drywall or plywood). The window frames and door frame are part of this combination. The ceiling is likewise made up of the same components.

The fact that a container's sides are corrugated adds a bit of complexity. Each corrugation both on the inward facing side and the outward facing side have a flat spot, about 3". The distance from inner to outer corrugation, including the thickness of the metal (14 ga. or about ⅛"), is about 1 ½".

For example, if you installed 3½" studs on the inward facing corrugations and ½" thick plywood for the interior wall paneling, the total thickness of the wall would be:

width of container side	width of stud	thickness of interior wall paneling	total width of wall
1 ½"	3 ½"	½"	5 ½"