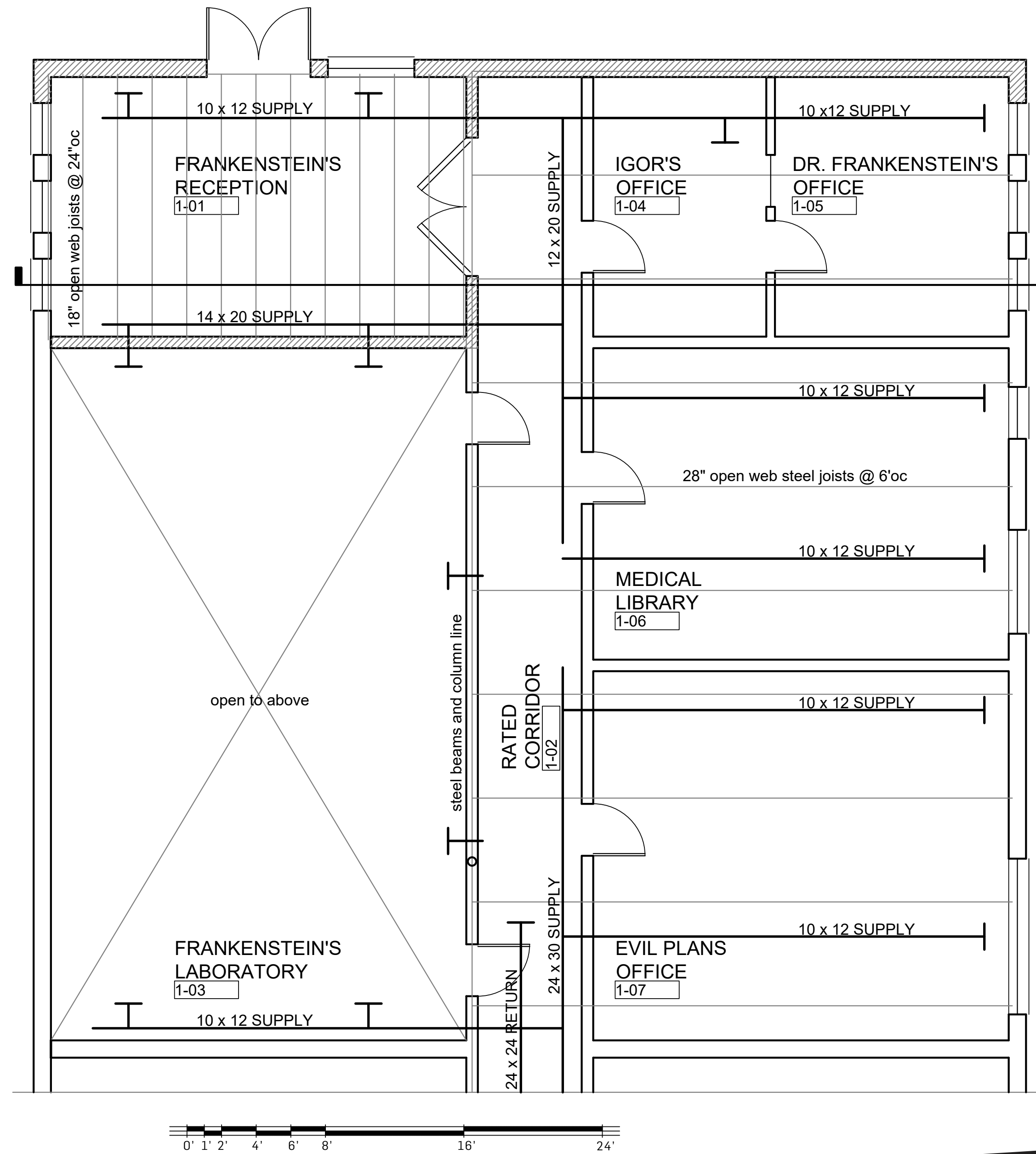


► 1.

The following drawing shows the first floor plan (including the framing members for the second floor) of Dr. Frankenstein's Laboratory. It is a two story building, but, in the interest of time, we will just focus on the first floor for now. Note the following:

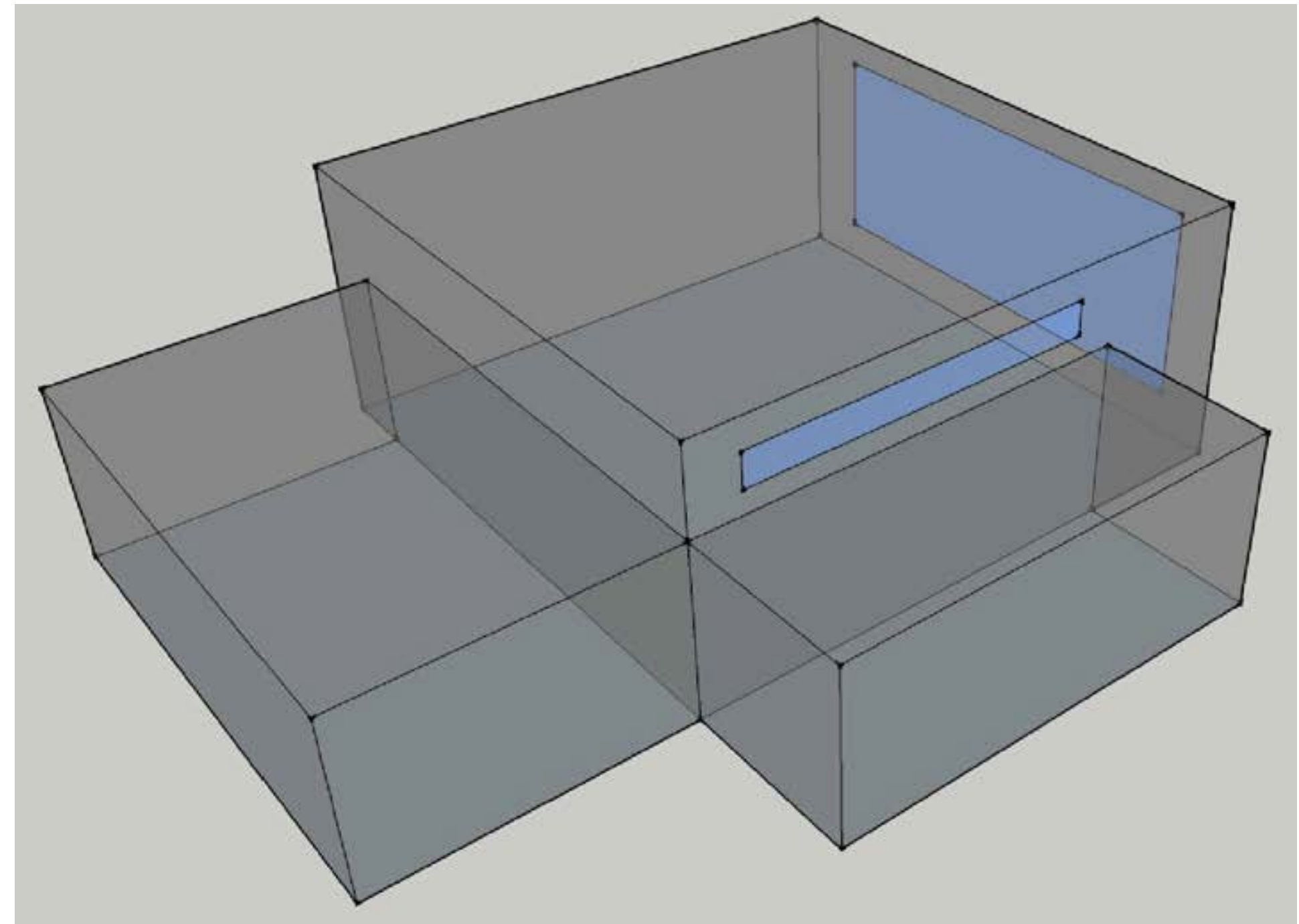
- First floor is slab on grade*
- Frost depth is 48"*
- Ceilings are 9' generally*
- Laboratory is a double height space open to above*
- Reception area has a 10' ceiling*
- Assume 10" for lighting and sprinkler piping*
- Any duct smaller than 12x12 can fit between joists, all others must run below the joist*

Draw (sketch) the section of the first floor (at the CUT LINE shown) and include the floor to floor dimensions.



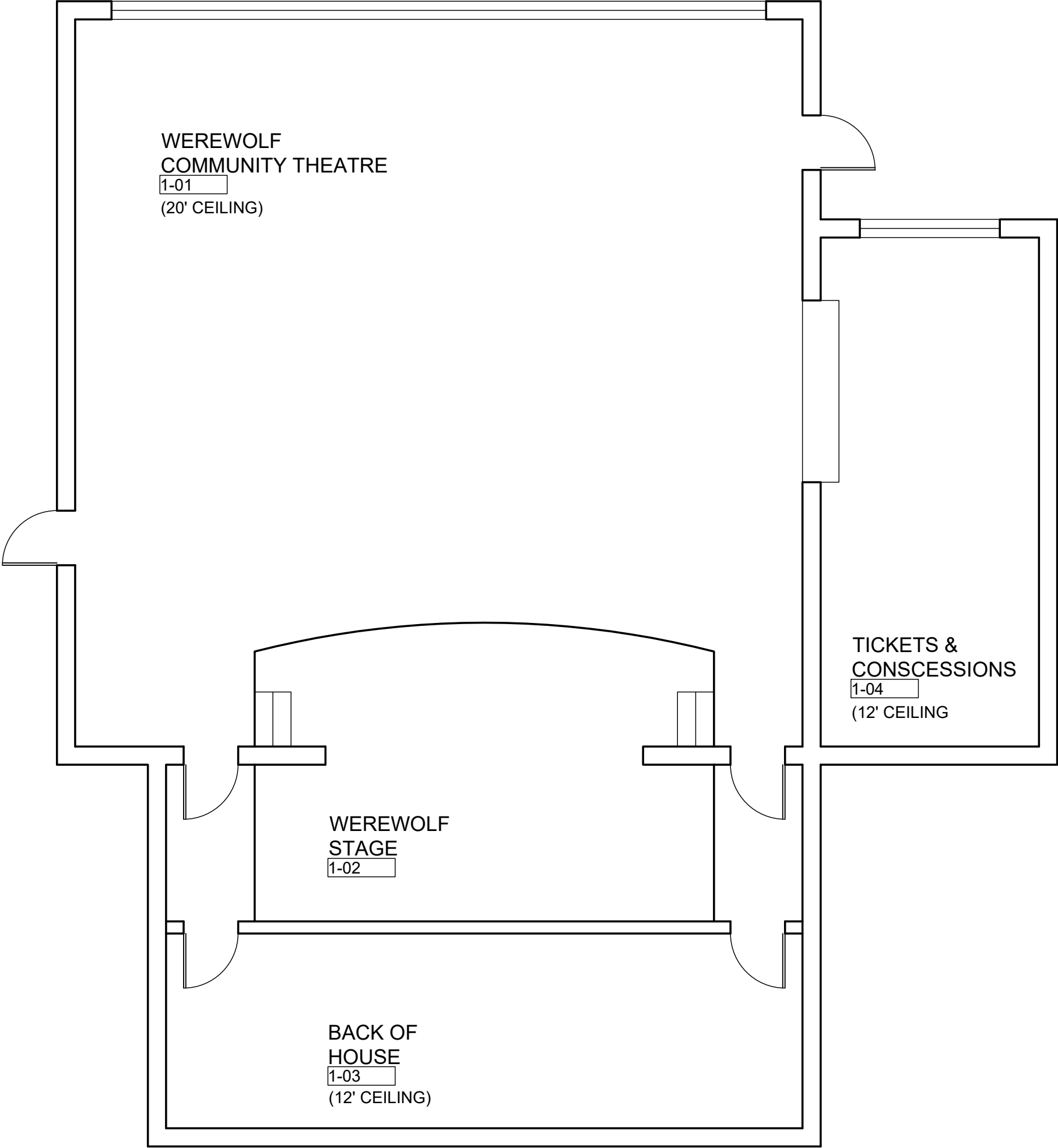
► 2.

The Werewolf Community Theatre is building a small community center and stage space for their nighttime productions. The space is a simple structural concept - one tall multipurpose space with two smaller side spaces on two of the sides to support the productions. On the following floor plans, draw (sketch) the required structural framing plan using masonry bearing walls, beams, columns, and joists and structural decking. The maximum deck span is 5'. The maximum joist span is 30'. The maximum beam span is 45'. Doors need a steel lintel when part of a masonry bearing wall. Columns can be put into any existing wall or window wall. No new walls.



Note: Any wall on the framing plan can be either a masonry bearing wall OR a beam/column frame. It's your choice depending on what you think makes the most sense for that portion of the building. But do not over structure the building. Try to keep it economical and simple.

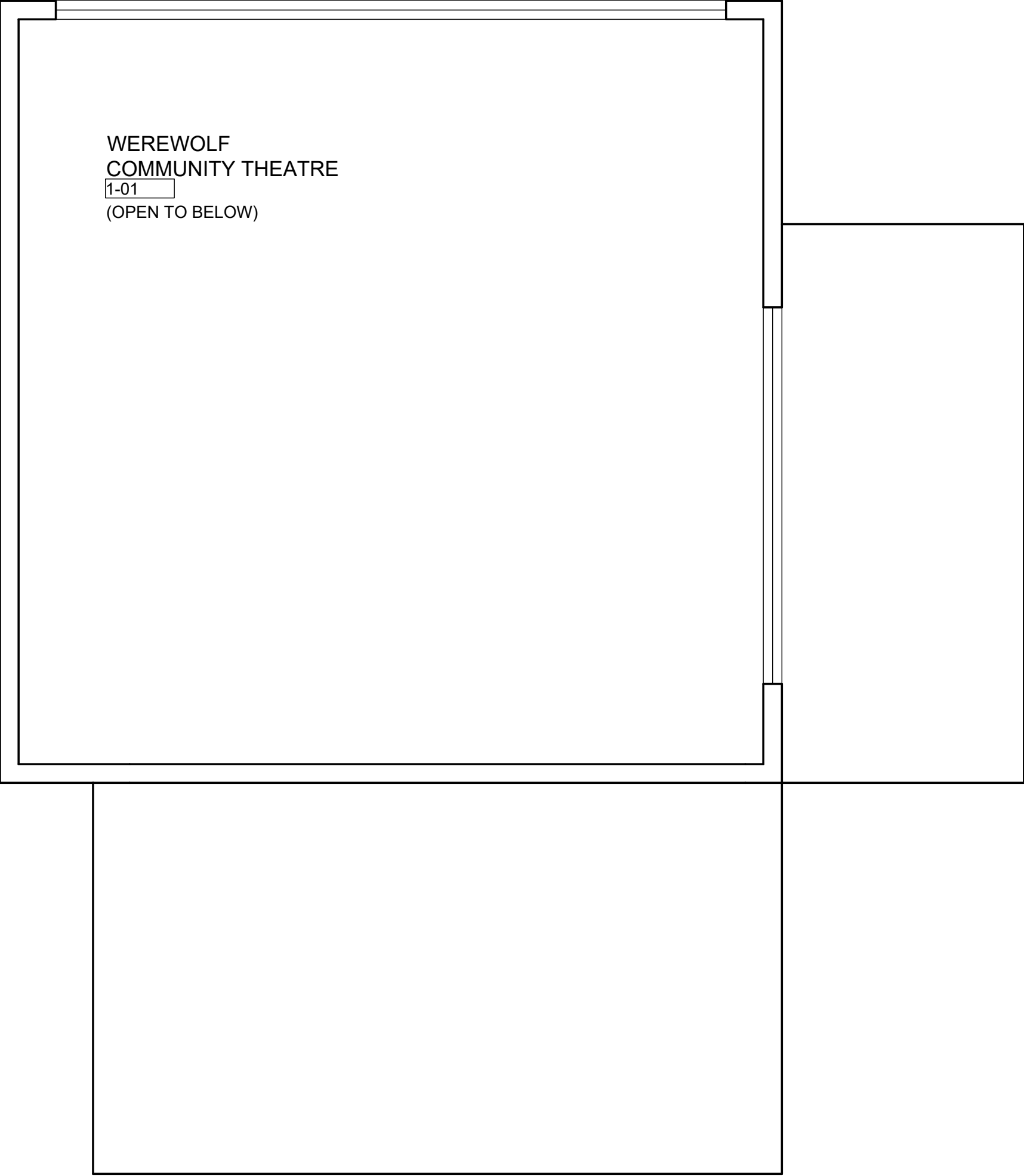
WEREWOLF COMMUNITY THEATRE



1 LOWER LEVEL STRUCTURAL PLAN

A horizontal scale bar with markings at 0', 1', 2', 4', 6', 8', 16', and 24'.

WEREWOLF COMMUNITY THEATRE



2 UPPER LEVEL STRUCTURAL PLAN

A horizontal scale bar with markings at 0', 1', 2', 4', 6', 8', 16', and 24'.

▶ 3.

On the topography plan shown, you will be adding the picnic table patio for the visitors to Dracula's castle. After the visitors have had their blood sucked, they will need to be wheeled in wheelchairs back to their cars, therefore the walkway needs to be accessible.

Alter the contour lines to create a better storm water runoff pattern that will not impact the picnic area, create a construction pad for the picnic area (the dashed rectangle shown), and create an accessible path, but do not disturb the existing parking lot or the existing trees. What is the proposed elevation of the picnic area?

