

# FBO DESIGN

An Fbo is a "Fixed-base Operation" business that is located at airports. FBOs are mainly used for private aircraft parking and refueling. Depending on the airport and location, FBOs can range from simple concrete lot with a few pumps to a red-carpet event with 5-star service. FBOs can include offices and work areas for those that operate the business, as well as luxury lounge areas, food and beverage areas, sometimes restaurants, and pilot lounges for resting and refreshing.

## FBO HANGAR DESIGN:

Just like any apartment or hotel parking lot, FBOs have different amenities that set their business apart from other FBO operations. Those amenities include free food and beverage, overall aesthetic and comfort of the space, parking options, transportation services, and many others. The Hangar specifically deals with the parking element of the design. This could easily be compared to "covered" versus "uncovered" parking. The hangar is a nice feature because those that want their aircraft to be parked inside during the duration of their stay can choose to pay more for this feature. Often pilots and clients will choose which FBO they land at depending on the quality and service of their past experiences. The hangar could easily be something that will be added to the customers "pros" list. On average customers pay anywhere from \$700-\$1400 per night to store their aircraft inside the hangar.

Other than aircraft storing, FBOs will store equipment and tools in the hangar as well. The Hangar needs to have multiple entrances besides the main hangar door. They need direct access to inside the FBO, a door from the back side, as well as a smaller garage door style door for larger equipment to be brought in and out. The hangar will also include a restroom for employees working in the hangar or on the tarmac and an aircraft stocking station that will supply ice, snacks, beverages, and other goodies to restock the interior of the planes for an additional cost.

When it comes to the design and maintenance required for the hangar, there are many different elements to remember. A decent sized hangar that can fit a variety of aircraft sizes would be about 250' by 250'. However, larger more busy airports and FBOs will increase the size or have multiple hangars. Most hangar doors are about 29' to 35' tall and about 100' wide. The ceiling heights of hangars range from 31' - 35' to allow for structural beams and support. All hangars are required to have a large ceiling fan for air flow. 220 Volt outlets are required due to the need to convert AC power to DC power for the aircraft. The last important design element to remember is the flooring of the hangar. The material should be a polished concrete or epoxy to allow for easy cleaning and function in operating the jets. Depending on the location and climate the FBO is located in, a lot of hangars have heated flooring for easy functionality purposes and to avoid weather issues and delays.



## INTERVIEW WITH A SPECIALIST:

### 1. CAN YOU EXPLAIN EXACTLY WHAT AN FBO IS?

"FBO stands for "fixed base operation." Meaning it is a business at an airport that takes care of private aircraft. Their main responsibilities are to fuel planes, storing or parking private aircraft, and for private pilots to rest or flight plan."

### 2. WHAT DO ALL FBOS HAVE IN COMMON WHEN IT COMES TO SPACE AND DESIGN?

"Every FBO has a front desk, lobby for passengers to wait, bathrooms, office space for FBO workers, and a very large hangar for parking some of the planes indoors."

### 3. WHAT ROOMS AND SPACES WOULD YOU CONSIDER WANTS VERSUS NEEDS?

"Most of the needs include everything that was listed in the last question. So, a front desk, lobby for passengers to wait, bathrooms, office space for FBO workers, and a very large hangar for parking some of the planes indoors."

"When it comes to wants, there is just about anything that can be added to the FBO, but these are a few that I have seen in FBOs that I have visited. These wants include: classrooms for flight training, snack bar or area for passengers, breakroom for employees, conference room(s), pilot lounge which may also contain a private pilot restroom, nap rooms, or movie room within the lounge, and also every so often you will see a restaurant or cafe attached to the FBO."

### 4. WHO WORKS AT THE FBO FULL TIME? WHAT JOB TITLES GET PERSONAL OFFICES?

"Those that get their own offices are the general manager, assistant manager, director of maintenance. The line service and accounting employees get a larger office that has multiple desks for everyone that works in the department. The other one that sometimes gets their own office sometimes is the receptionist. Often they have a front desk, then behind the desk, it will lead into another more private office area for anyone that works at the front desk."

### 5. WOULD YOU SAY THAT THE TRAFFIC FLOW INSIDE THE FBO IS FAIRLY HEAVY OR LIGHT?

"First off, it really depends on the location of the FBO, because an FBO in New York or LA is going to have a lot more people come through than an FBO in Driggs, Idaho or Logan, Utah. So the location can make a huge difference. However, you also have to realize that to really get anywhere, you have to walk through the FBO because there are gates surrounding the tarmac."

### 6. IS THERE NORMALLY SEPERATE RESTROOMS FOR EMPLOYEES?

"There are normally separate restrooms for the pilots in the pilot lounge, but for the employees at the FBO, they normally just use the public restroom that the guests use. Also, a side note, the restroom in the pilot lounge normally is a full restroom with a shower for pilots to freshen up if they need to."

### 7. WHAT ARE NORMAL OPERATION HOURS FOR AN FBO?

"Yet again, it depends on location. In larger cities they are open 24 hours for 7 days a week, all year round. For smaller FBOs, operation hours typically are open 5 or 6 am to about 7 or 8 pm. However, they provide a phone number for pilots to contact and let them know in advance if they will be coming in after hours, and they will arrange for someone to be available when they need them there."

### 8. ARE THERE ANY SPECIFIC RULES OR CODES YOU HAVE TO FOLLOW WHEN DESIGNING AN FBO?

"Typically the codes are the same codes you have to use for any airport design. However, in certain cities, they may require fire suppression in the hangars depending on how big they are. This means that foaming guns may be required in the hangar."

### 9. HOW ARE FBOS NAMED OR ARE THEY NAMED AFTER SOMETHING?

"Like any other business, they are normally privately owned and are named whatever the owner wants to name it. However, there are a few that are owned by the city and will be named after the city."

### 10. IF YOU COULD MAKE CHANGES TO ANY FBOS YOUVE BEEN TO, WHAT WOULD THEY BE?

"Something kind of unique about FBOs is that they mainly make most of their money off of fuel sales, not much off the other services that they provide. But with this being the case, a lot of FBOs feel that they can mark up their fuel prices A LOT because there is no where else for the private planes to fuel up while there."

"The other thing that can get frustrating at a lot of FBOs is that they have a facility fee. Meaning, you have to pay a fee basically just to land there. Even if you are just dropping someone off and then leaving 10 minutes later, you have to pay the facility fee, which depending on location can get up to about \$500."

### 11. OUT OF ALL THE SPACES AND ROOMS IN FBOS WHICH WOULD YOU SAY ARE THE MOST IMPORTANT?

"The very most important thing is the rooms and spaces the customers will see first. So those places include the lobby, reception, nice snack area. This is because the clients have the money and are choosing the destination of where they land."

"The next most important place is going to be the pilot lounge. This is because ultimately the pilot has a big say in which FBO to land at. Since the pilot will be spending the most time there and they will be doing the flight planning, they can convince the client as to where they should fly into. Also customers like their pilots to be happy and comfortable, so having a pilot lounge that is enjoyable makes a big difference."

### 12. WOULD YOU CONSIDER FBO INTERIOR STYLES TO BE MORE "COMMERCIAL/COORPORATE" FEEL OR "HOMEY/COMFORT" DRIVEN?

"Probably more luxury commercial high end. People want them to be aesthetically pleasing and comfortable but also want them to appear professional."

### 13. ARE MOST FBOS 1 LEVEL OR 2?

"I would say that most are 2 story. This is because they normally have public space for the clients and pilots on the ground level, while the offices and other stuff that does not always like to be seen by customers is upstairs."

### 14. HOW MANY FBOS DO YOU THINK YOU HAVE BEEN TO IN YOUR LIFE?

"Well I do not know how many different ones but, on average I travel to 3 FBOs a week and I have been doing that for the last 17 years. So I guess you could say I have been to a few hundred of them."



## SPACES NEEDED:

Lobby/Reception area

Office behind reception

Conference Rooms

Snacks & Beverages

Reservable Offices

Employee Lounge

Employee Breakroom

Line Service Department Office

Accounting Department Office

Flight Training Classrooms

Hanger: storage & restroom

Aircraft Stocking Station

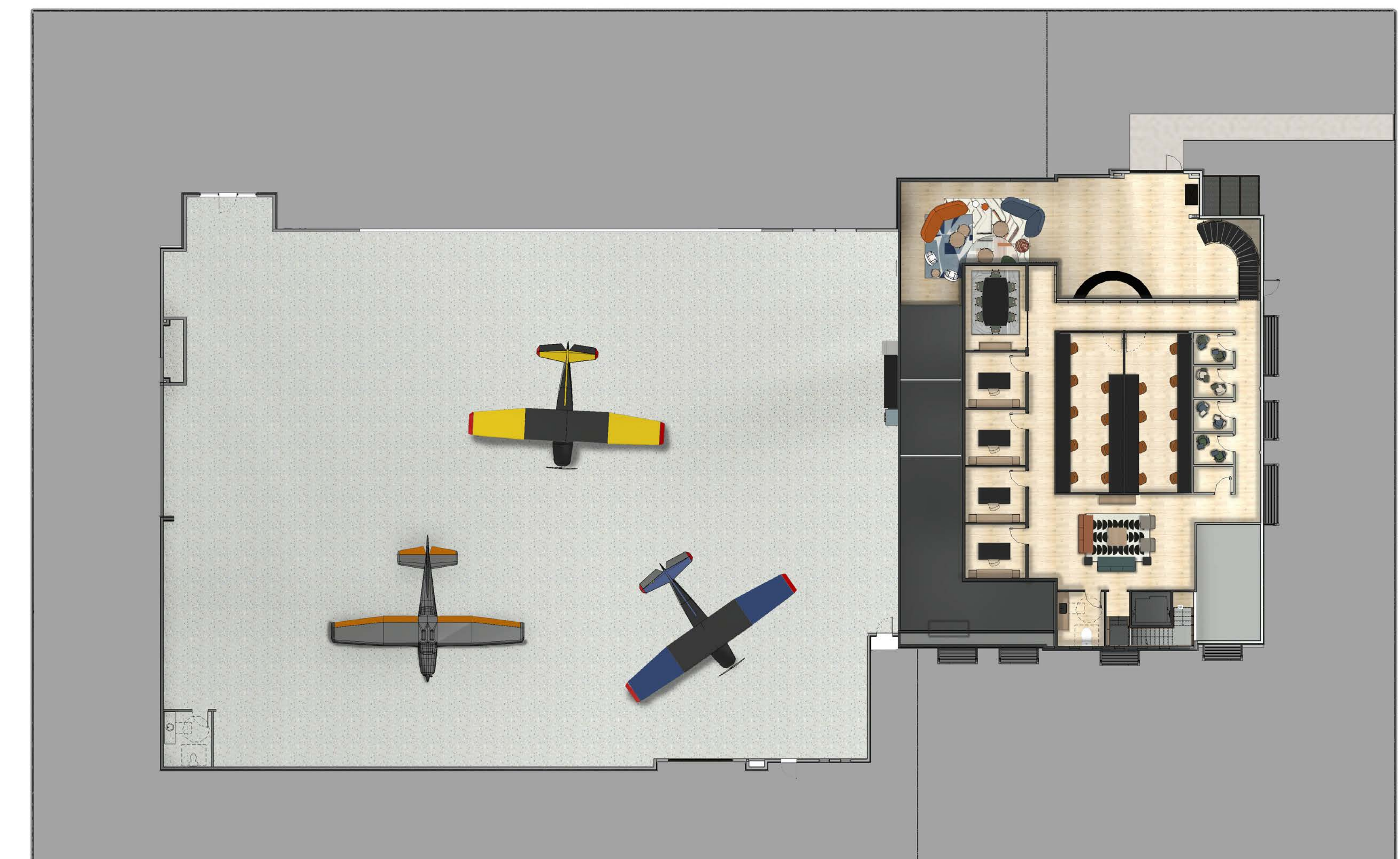
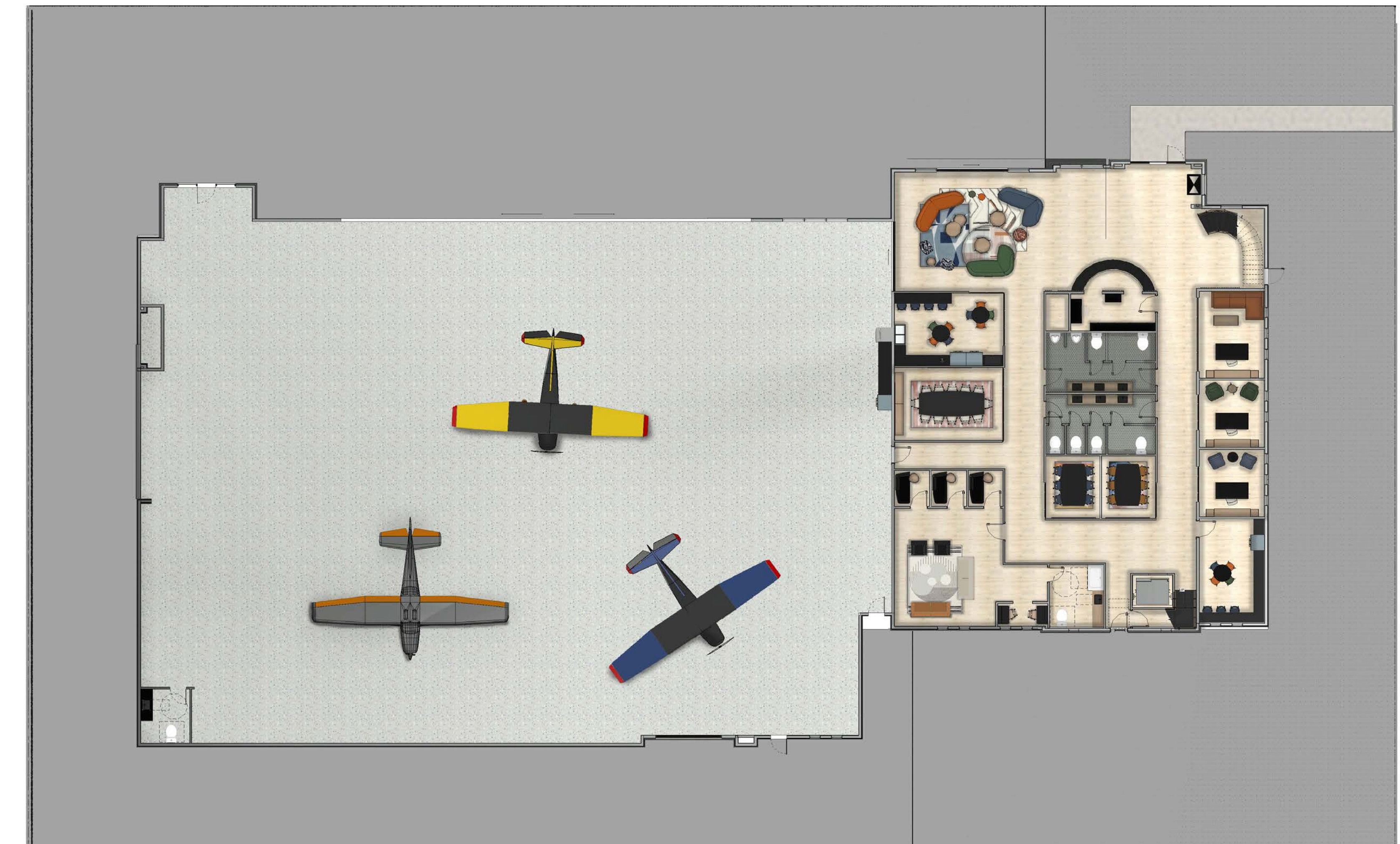
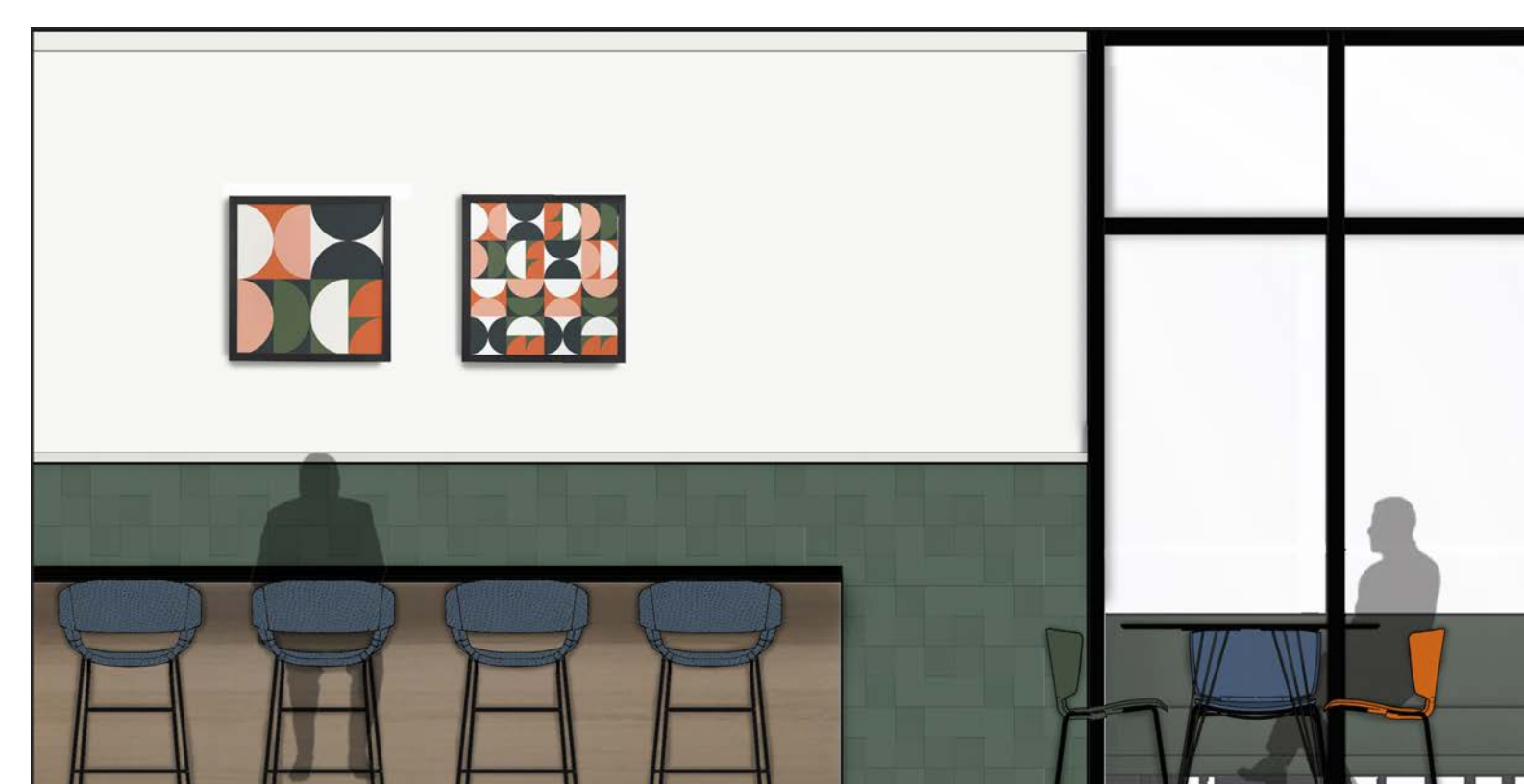
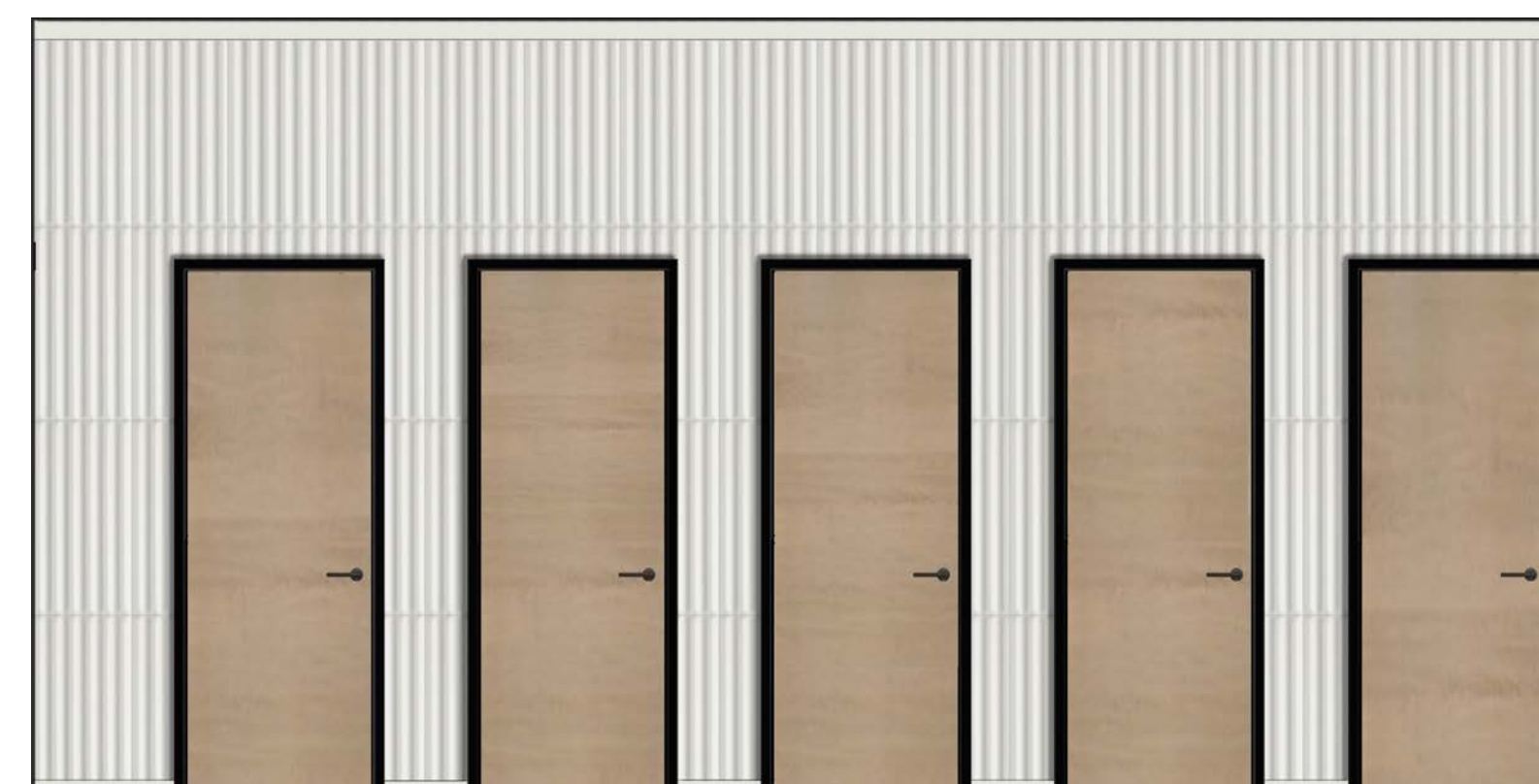
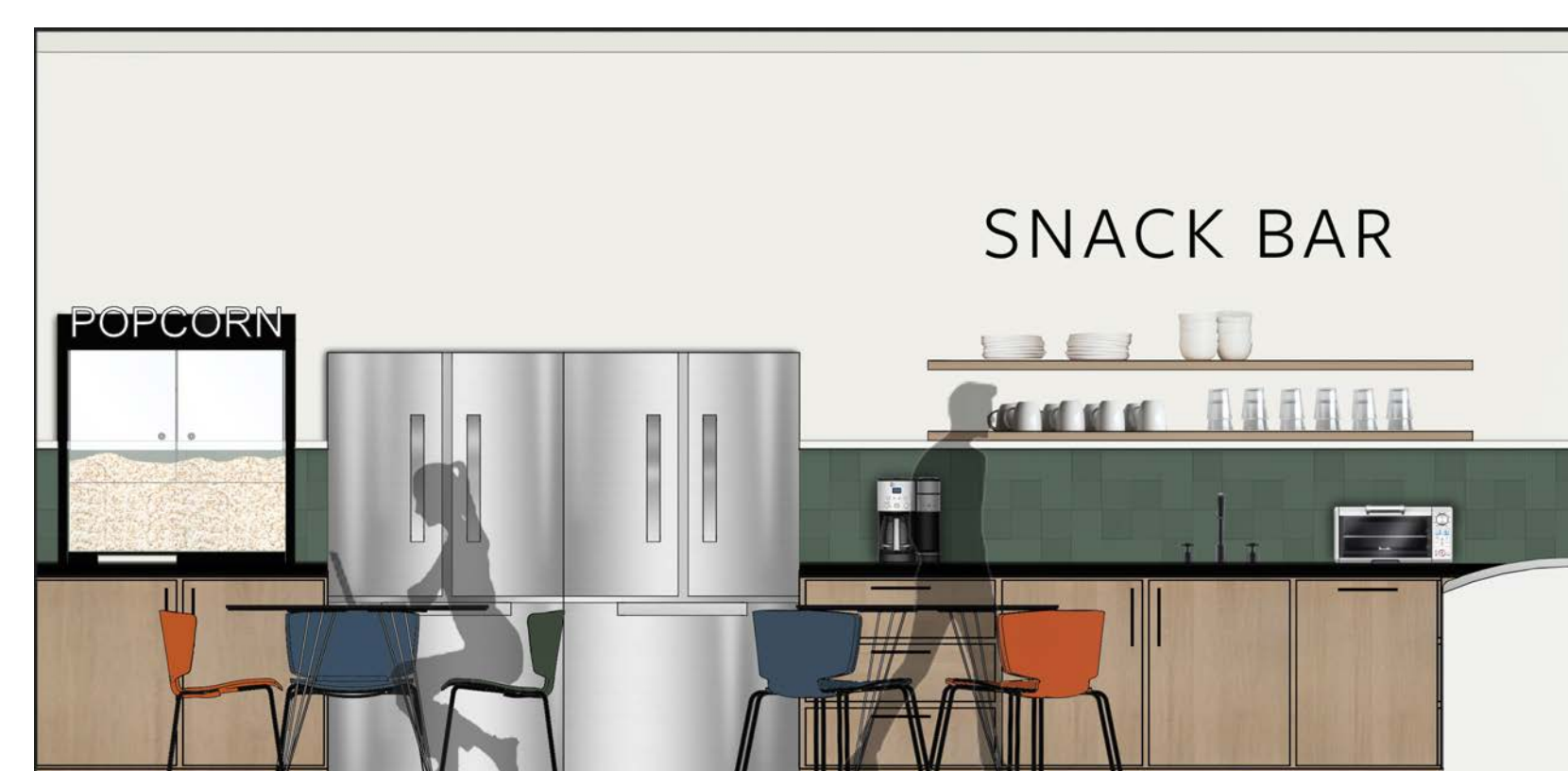
Restrooms: public & 1 full bath w/ shower

Pilot Lounge: nap rooms & flight plan area

General Manager Office

Assistant Manager Office

Director of Maintenance Office



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