



سرايا العقبة  
SARAYA AQABA

# Ocean Adventure Aquarium

at SARAYA AQABA

100% Final Preliminary Design  
March, 2010

# OCEAN ADVENTURE AQUARIUM

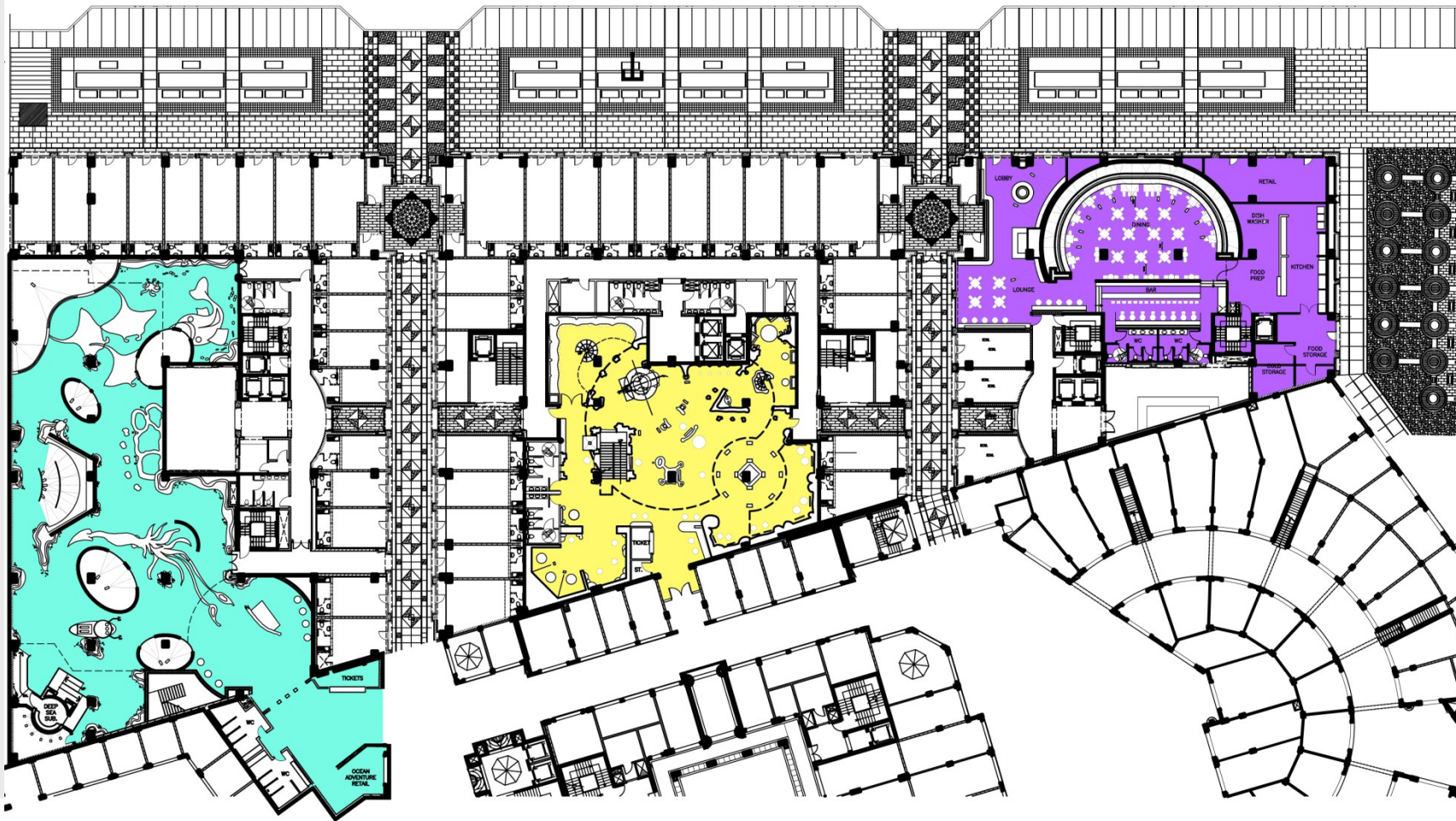


- BALCONY TO THE WORLD RESTAURANT
- OCEAN ADVENTURE AQUARIUM
- BEN & IZZY 4D RIDE
- MOVIE NIGHTCLUB
- SARAYA KID'S STUDIO - SaKS
- SOUNDSTAGE RESTAURANT



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# OCEAN ADVENTURE AQUARIUM



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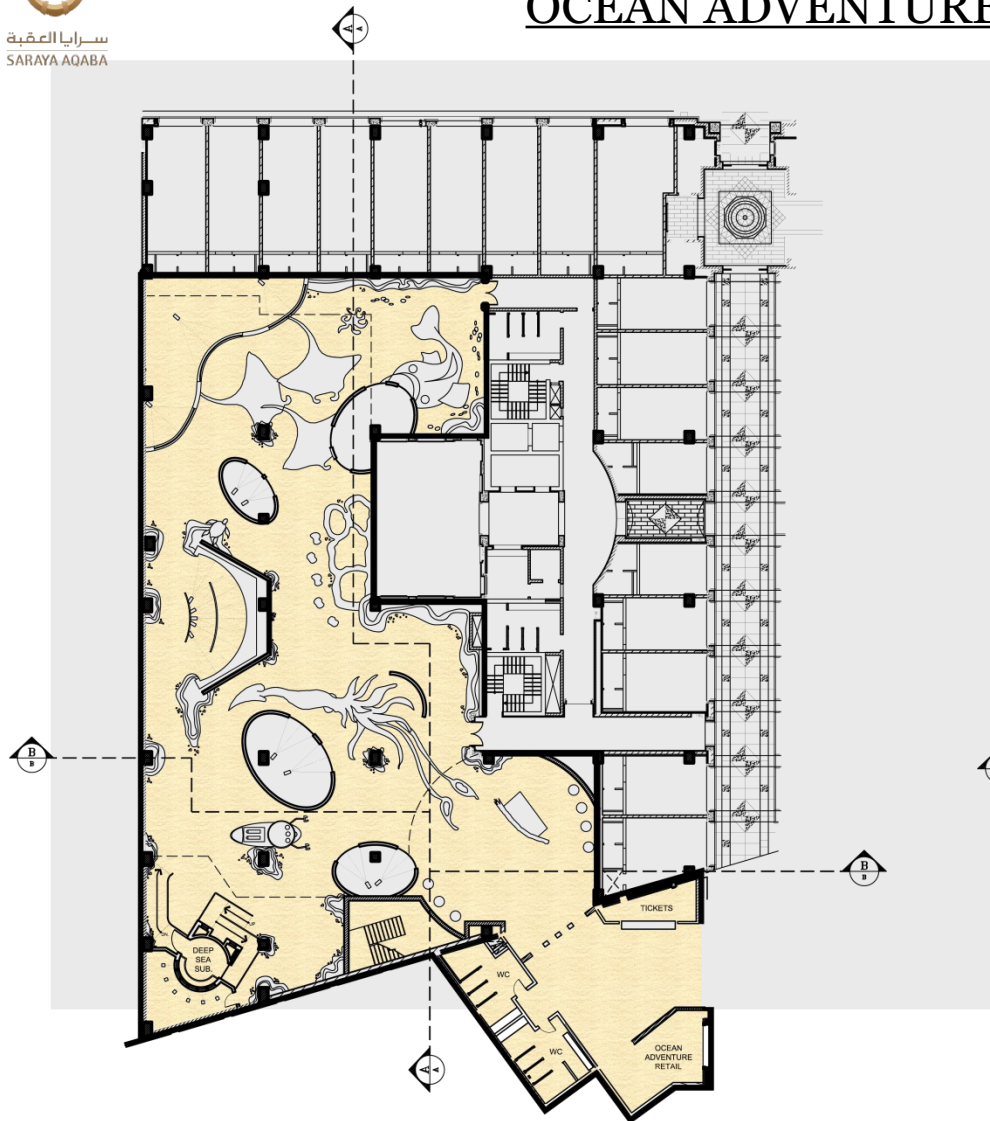
 SARAYA KID'S STUDIO - SaKS

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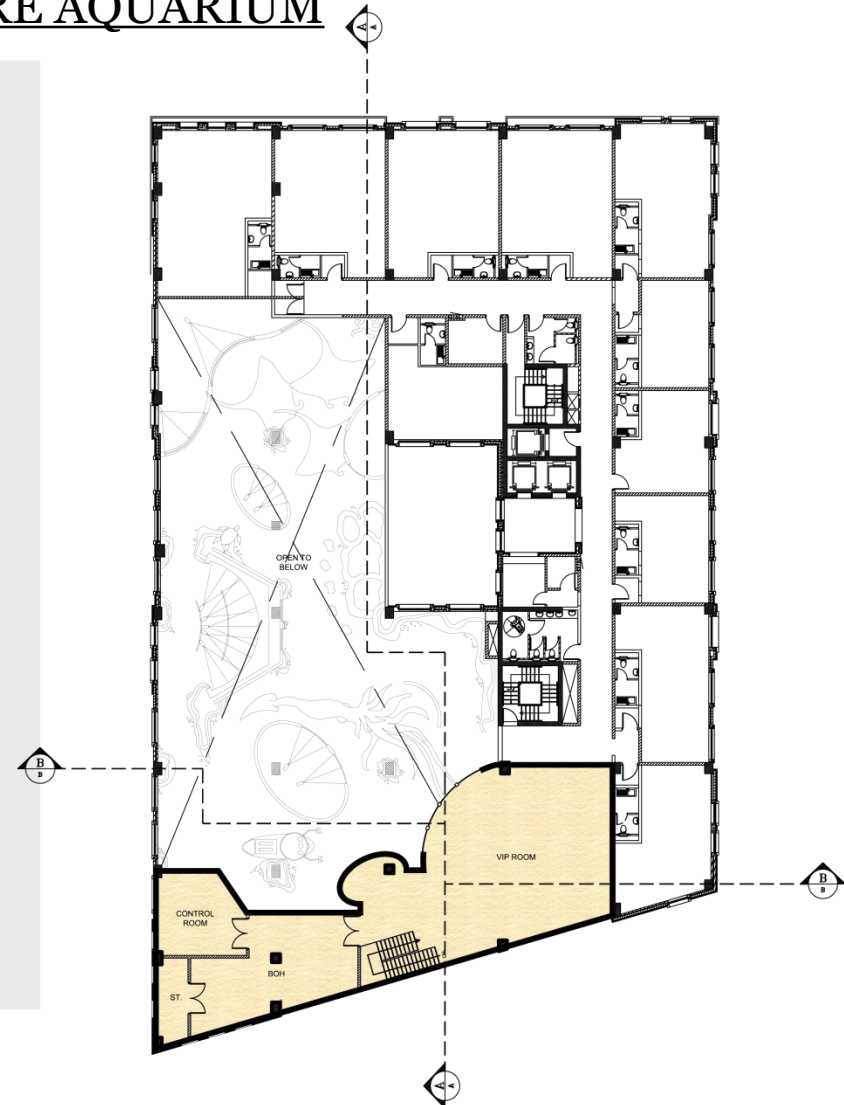


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# OCEAN ADVENTURE AQUARIUM



GROUND FLOOR LEVEL - OVERALL



MEZZANINE LEVEL - OVERALL

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## OCEAN ADVENTURE AQUARIUM

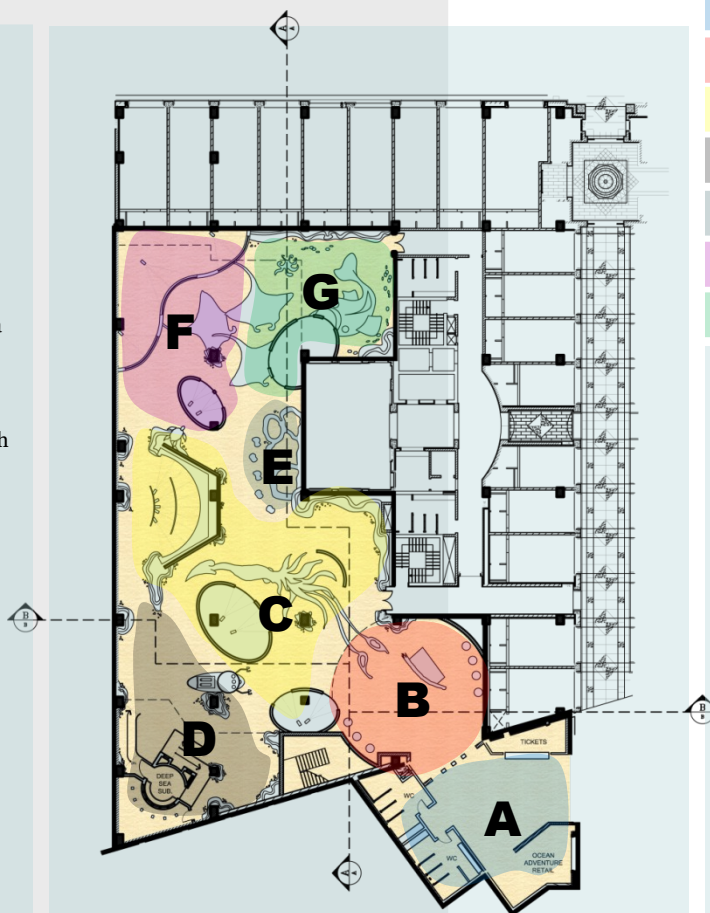
### Ocean Adventure

#### Attraction Summary

At Saraya's **Ocean Adventure™**, divers and non-divers alike can enjoy the rich underwater environments without ever getting wet. Saraya's **Ocean Adventure™** is an entirely dry facility that de-livers all of the wonders of the sea through a variety of high-tech, interactive exhibits and activities that both inform and entertain.

Here, you can explore the area's underwater wonders through technology-driven exhibits. You might explore a shipwreck with your fingertips, understand how the ocean's currents affect global weather, interact with playful fish in (virtual) aquarium tanks... even explore the ocean's deepest depths and see crea-tures few people have ever seen.

Like a typical aquarium, The **Ocean Adventure™** has a wide variety of sea life on display, except that the creatures here are all virtual. These fish do not require the care and maintenance of living species. They are never sick, never in hiding or asleep, and interact and react to human contact. Along with the virtual aquariums are similar technology-driven displays that support the themes of The **Ocean Adventure™**.



General Lobby Area – (capacity 15)

Ticket Area – (capacity 3)

Sub Total Area A – (capacity 18)

Total Attraction Capacity/Hr – (capacity 224)

<b>A</b>	Entrance
<b>B</b>	Shipwreck
<b>C</b>	Reef Area
<b>D</b>	Deep Sea
<b>E</b>	Tide Pools
<b>F</b>	The Big Aquarium
<b>G</b>	Children's Lagoon

#### Area A: Entry Area

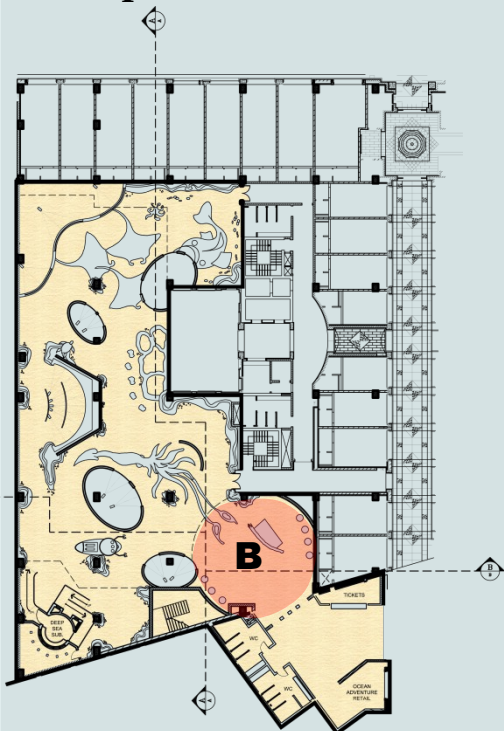
As we step into The **Ocean Adventure™** lobby we hear the sounds of the ocean surf and notice the delightful and distinct smell of the ocean. The entry lobby area is anchored with a wall of cascading blue water where fish gracefully swim. As we pass the screen we notice a swirl of water current and the reaction from fish. The image reacts to our body movements.

To one side of the lobby we can purchase tickets for The **Ocean Adventure™** and a number of other attractions located throughout the Souk. We are offered for our use a hand-held device to assist us with our journey through the various exhibits within The **Ocean Adventure™**.

We enter The **Ocean Adventure™** via a breach in the hull of an ancient shipwreck. The ship is our portal to The **Ocean Adventure™**.

## OCEAN ADVENTURE AQUARIUM

### Area B: Shipwreck



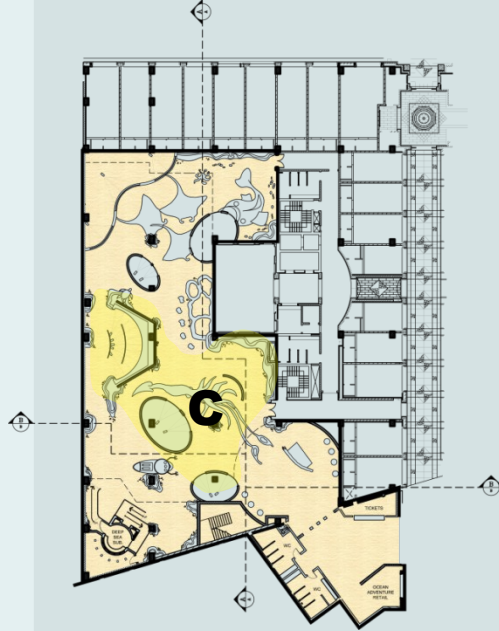
The wreck is covered with barnacles and sea life. In the crevices of the wreck we see small reef fish, eels, and other creatures peering down upon us. Within the wreck is an interactive map of the Red Sea and the Gulf of Aqaba. This map is displayed on a free-standing table that allows you to explore layers of media files with just your fingertips. The table transforms when you point to any one of the shipwreck locations called out on the animated map of Aqaba.

The table zooms into a digital image of the specific shipwreck you gestured to. With your fingers, you can explore a photo gallery of the wreck site, go on a digital fly-through of the ship, raise the ship and see how she looked when she was in her ocean-going heyday, or dive as deep as you want into a wealth of information that is quite literally at your fingertips.

Several interactive displays encompass the digital map, providing us with real footage of underwater dig sites, archaeological excavations along with historical information relating to how and why the ship wreck occurred. We will also be able to study earthquakes, cyclones and hurricanes and see how weather impacted ocean travel at various times in history.

## OCEAN ADVENTURE AQUARIUM

### Area C: Reef Area



We step off the plank floor of the shipwreck onto a colorful blend of sand and twinkling shells sprinkled upon the ocean floor.



To our right we see the lush coral reef of the Gulf of Aqaba with its beautiful coral outcroppings shimmering in the sunlight along with colorful sea anemones and shell creatures. Thousands of sea anemones of varying sizes are strewn across the reef like magical gems. Barnacles with their food catching fans, pop in and out of crevices within the coral reef. Layers of video projections both in the background and integrated into cracks and crevice of the reef coral and rockwork. These projections ensure that there is abundant life represented whenever and wherever you view the scene. Still even these do not supply the marquee animal presence.

In fact, that's what the scuba masks are for. Many of the fish in this space cannot be seen until you don one of the masks tethered to a rail. When you look through the mask, you see a real-time image of the set combined with the virtual sea creatures that interact with you. A hand-held sensor allows you to "feed" the fish, find out more about the species you're looking at, or discover some other hidden surprises in each of the environments.

In your goggles, the reef is alive with colorful fish that swim all around you. Turn to the person next to you, and you might see a playful parrot-fish nibbling on his or her scuba mask. A flick of your wrist sends food into the water.

Looming overhead is a giant squid which seems to be frozen in time. Ahead of us we find ourselves face to face with a tall column of water. It is a clear magic tank filled with over 1 million sardines, swirling in a mesmerizing dance. This display shows how large schools of fish move together as one in the

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The reef fish swarm and dart before you after the treats. Look closely throughout the reef and try to find the moray eel, the octopus, or the leopard shark lurking in the nooks and crannies along the bottom. Watch sea turtles glide gracefully across the top of the coral. Point to a giant clam or oyster and it might open to reveal a special clue or hidden fact about the animal.



We move our hands to stir up some food, and suddenly a dozen sharks appear, seemingly out of no-where, to feed in frenzy on the floating bits of fish.

We move on through the kelp forest and enter an area where we are provided with a special set of glasses. Before us amongst the kelp forest we peer into the ocean depths and sea creatures passing in the distance.

We hear the haunting song of a blue whale and then catch a passing glimpse of the whale and her calf. A shadowy hulk hovers in the distance. As it moves nearer, the shadow becomes a massive whale shark that glides within arm's length as it gulps up krill. We are immersed in the life cycle of the ocean, displayed in real time 3D graphics.

We are introduced to our guide who informs us we have stepped into a special vehicle at Saraya Aqaba. Our guide instructs us to hold on tight for we are to start on a magical fly around to some of the Red Sea's most wonderful reef sites. We cruise over ancient and modern wrecks that morph back to their original conditions. We fly through schools of fish that are attacked by giant fish and birds. Our guide instructs us we have the capability to travel to any of the world's oceans. A map appears before us and we choose our next Ocean Adventure.

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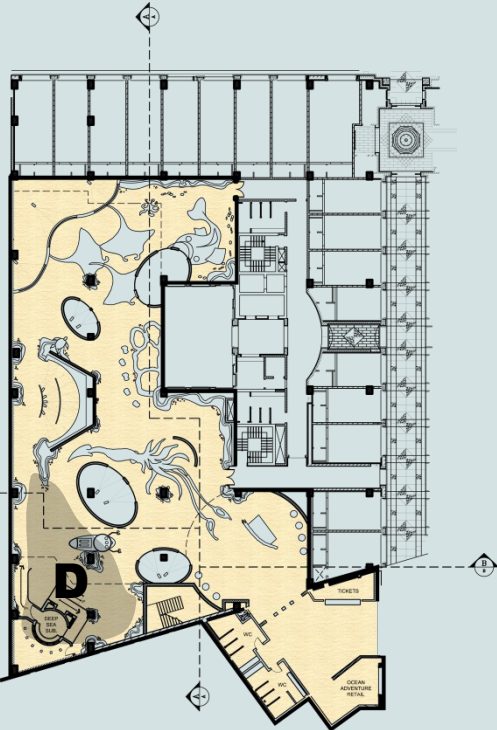


We exit the adventure and enter a display of whimsical hanging jellyfish. There are several different species suspended in the air. A loggerhead sea turtle is about to devour a jellyfish. You can touch the tentacles of the jellies, and they sparkle with tiny fiber-optic lights inside their bodies. When you pet the turtle, he emits a snorting, hissing sound like he is taking a breath as he swims. There is an interactive display that allows us to further experience and explore the life of various types of jellies.

After taking off our scuba masks we are captivated by a beautiful bed of giant swaying kelp. We peer through the kelp and see three cute sea otters playing within the waters. We

## OCEAN ADVENTURE AQUARIUM

### Area D: The Deep Sea



Below the giant squid at The **Ocean Adventure™** portal, we see a life size copy of a deep-sea exploration sub. We can hear the sound of the motors as the sub is ever so slowly guided about the deep sea area. Above the sub we also see two small remotely operated vehicles (ROV).

Below the ROV's are two control stations that allow us to control our own ROV and pilot it through a virtual 3d deep exploration experience.

We are able to control the ROV grabber arms to collect specimens and send them to the laboratory ship, high above on the ocean surface for further examinations. With the ROV we are able to remotely visit and explore in detail, the hot vents of the ocean rift, where life exists in total darkness and has developed new ways to survive.

The next ocean environment that is on display couldn't be more different than the others. This is a journey to the dark environs of the ocean depth, so deep that sunlight does not reach the depths. We enter a specially designed vehicle with a large window to the sea.



General Area – (capacity 6)

EX-15 – Deep Sea Exploration Sub Prop (Life Size) (capacity 3)

EX-16 – Deep Sea Exploration Sub Station (capacity 3)

EX-17 – Deep Sea ROV Prop (capacity 3)

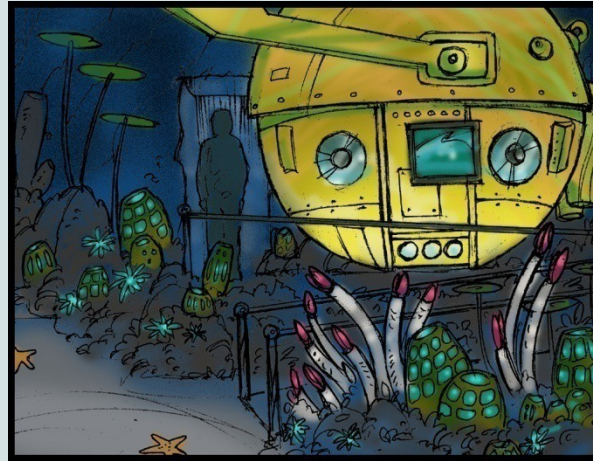
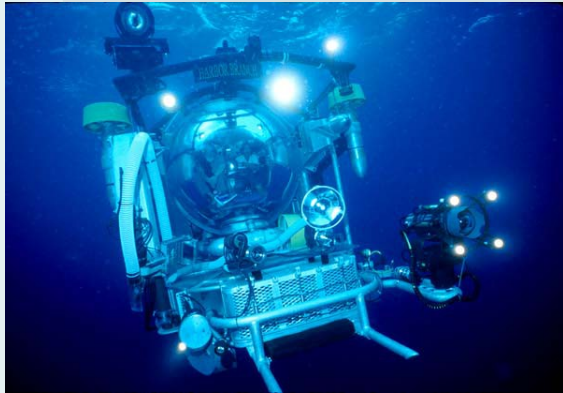
EX-18 – Deep Sea ROV Stations (capacity 3)

EX-19 – Deep Sea Journey 4D Theater (capacity 12)

EX-20 – Deep Sea Laboratory Stations (capacity 6)

## OCEAN ADVENTURE AQUARIUM

The doors close and we feel the rumble of the floor as we are being lowered into the ocean by a tether. We notice that the room is becoming noticeably colder. At about 200 meters the view out of the window becomes black and a thin layer of fog begins to roll down in front of the window. At about 1,000 meters below the surface the lights from our craft pick up the image of a large sperm whale. Amazingly this mammal dives to a depth where the pressure is 100 times greater than at the surface.



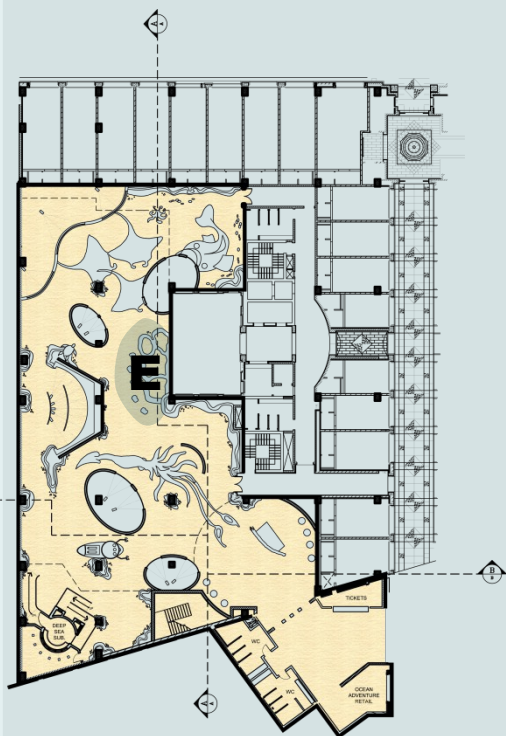
This is The Midnight World: the perpetually dark realm at the ocean floor miles below the surface, filled with frightening, alien-like creatures. Very few people have ever seen the creatures that dwell at these depths. The pressure down here is so high, that these animals cannot be brought to the surface without destroying them, and getting to them requires massive amounts of equipment and risk.

Although the ocean depths are permanently black, many animals create their own light -- with luminous markings to help spot or attract prey or a mate -- and have working eyes.

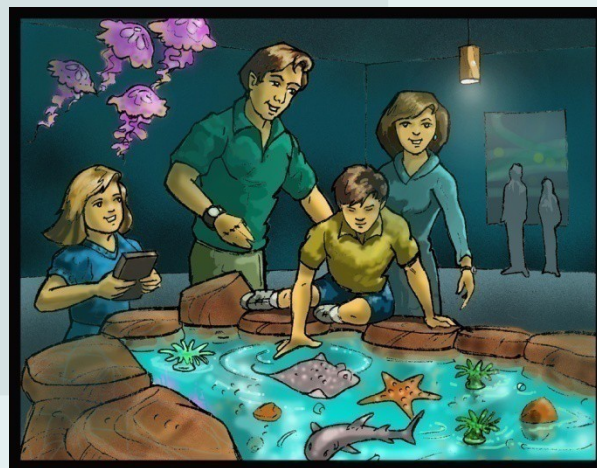
After exploring the deep we make our way back up to the surface. We leave our craft and find a laboratory work station, complete with microscopes that let us look at tiny shrimp and other specimens that have been gathered from the ocean depths.

## OCEAN ADVENTURE AQUARIUM

### Area E: Tide Pools



We move onto the tide pool display area located within a large rock formation. We hear the sounds of the wave action as the water rises and drops. Small rocky virtual pools are scattered about. You can tap an anemone and see it retract in defense or try to catch a shrimp as it zips and darts away backwards. You can walk across a larger tide pool, and perhaps see a flounder and rays dart out below. We watch as the water level drops abruptly and see the sea anemones and creatures retreat. Suddenly we notice within the rockwork a loud gurgle and a whoosh sound emanates from a hole. As we look down into a hole, we experience a blast of cold mist into our faces, as the blow-hole erupts.




General Area – (capacity 6)

EX-21 – Tide Pool (capacity 8)

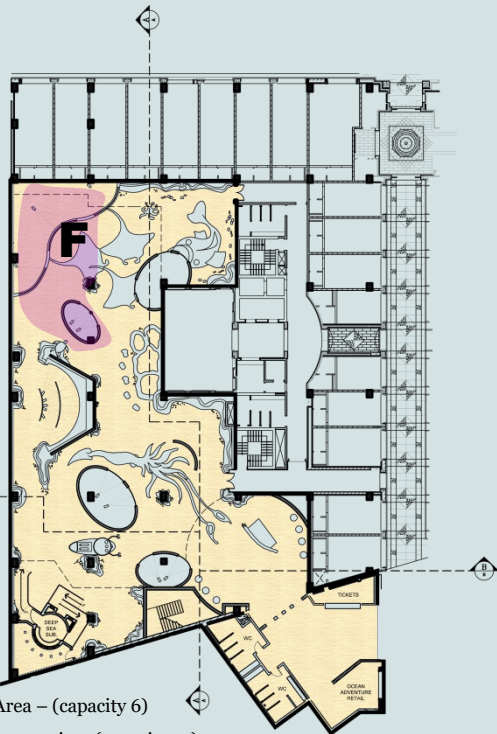
EX-22 – Tide Pool Viewer (Section) (capacity 8)

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Encompassing one side of the tide pools, video allow us to interact with video foot  within the tide pool exhibit. Using a spin browser we can control the speed of footage and have the chance to see things

## OCEAN ADVENTURE AQUARIUM

### Area F: The Big Aquarium



General Area – (capacity 6)

EX-24 - Interactives (capacity 12)

EX-25- 3D Jelly Fish Displays (capacity 4)

EX-26 – Big Aquarium Projections (w/ Gestures) (capacity 12)

EX-27 – Big Aquarium Interactives (capacity 8)

EX-28 – Giant Manta Ray Interactive (capacity 1)

Sub Total Area F – (capacity 43)

The highlight of The **Ocean Adventure™** experience is the large aquarium. This area is identifiable from all areas within The **Ocean Adventure™**. The fish on display here are all actually media broadcast on large video screen “tanks”. Like a typical aquarium, each video screen “tank” displays a different species or group of fish. These video images are slightly distorted by plastic layers over the video sources. Sometimes, these are convex Plexiglas lenses that warp the 2d video image in the same way a real aquarium tank is distorted by the water inside. Others are lenticular screens: prismatic layers that create dimensionality to the image behind it.

These aquariums are not just for looking, however. In the virtual aquarium you can interact and manipulate the many fish through touch screen and gesture technology. The tanks have sensors that react to your touch, so when you tap the tank, the octopus inside “comes” to you, if you tap the screen too hard, the virtual invertebrate will “ink” and dart into a narrow hiding spot.

The jellyfish tank is filled with a hundred, lustrous creatures that you can manipulate. You can isolate one of the jellyfish, and then gather them up in a group, just by holding up your hands.



You can even play simple games; see if you can separate the little jellies from the big ones, for example, or the pink ones from the blue. There's a large grouper on display whose gaze appears to follow you as you

## OCEAN ADVENTURE AQUARIUM

### Area G: Children's Lagoon



We enter a cleaning station area hosted by a family of giant manta rays. The father hangs above us and the mother is half buried, hiding on the floor, looking very much like she would in real life. The juvenile is hovering above the mother. We can climb on the mother and poke our heads inside the body of the baby ray to see what is going on at the cleaning station. This allows us to view several cleaner Wrasse enter the mouth and remove tiny parasites from the mouth of the baby ray. Soon the ray takes off, and we fly into deeper water and an enormous school of Krill turns the water pink. The ray dives and soars through the Krill sucking in large amounts of the tiny shrimp-like creatures. To one side of the rays there are interpretive displays about the rays and the nature of symbiotic relationships in the ocean and nature.



- General Area – (capacity 6)
- EX-29 – Angler Fish Anatomy (capacity 5)
- EX-30 – Interactive Fish (Cuttle Fish – Color) (capacity 1)
- EX-31 – Interactive Fish (Drum Fish – Sound) (capacity 1)
- EX-32 – Interactive Fish (Sea Dragon) (capacity 1)
- EX-33 – Fun Facts Wall Interactive (capacity 5)
- EX-34 Floor Interactive (Dance with Sea Critters) (capacity 10)
- Sub Total Area G – (capacity 29)

The Children's Lagoon consists of expansive exhibits to familiarize children with the beauty, poetry and anatomy of fish, sharks and rays. Various interactive displays highlight fun and tactile facts, such as the difference of the skin and cartilage skeletal structure of a ray/shark versus that of the

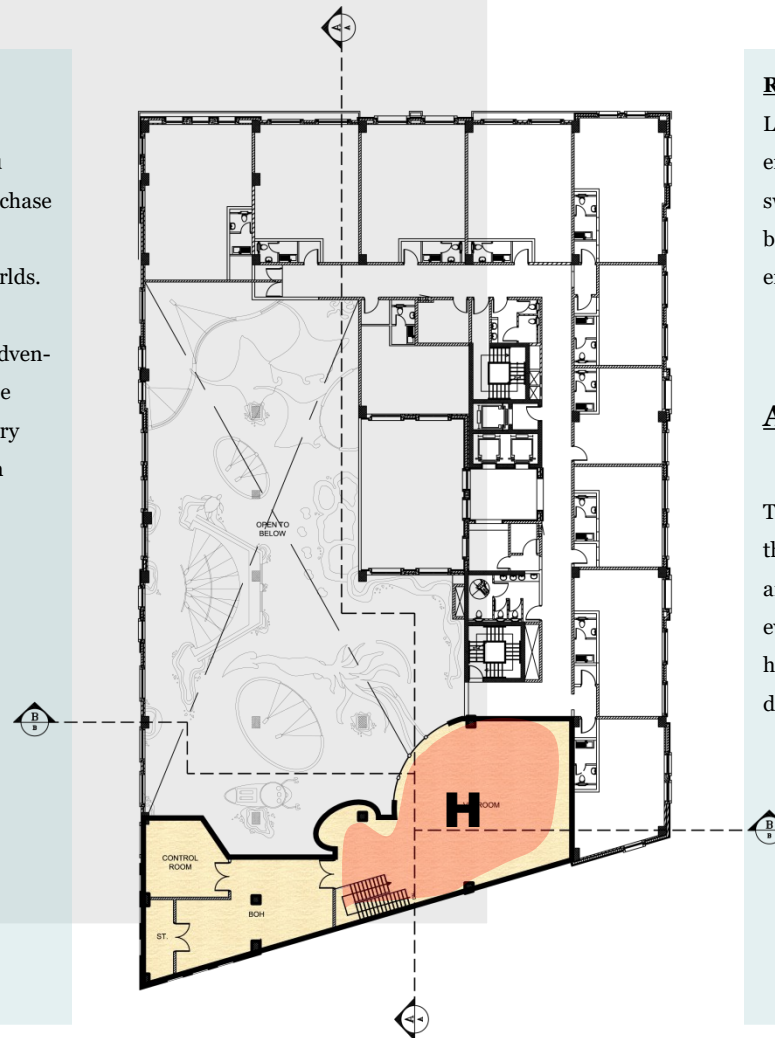
A giant Anglerfish sculpture emphasizes the lightweight skeleton and muscles for neutral buoyancy deep sea fish. The muscles of the fish are translucent while the bone skeleton is brightly colored. We learn how the Anglerfish has adapted to

## OCEAN ADVENTURE AQUARIUM

### Exiting

We are lead back to the bright light of day of The **Ocean Adventure™** entrance. From here, you exit the way you came pausing in the gift shop to collect a souvenir or purchase a copy of the custom photograph of you and your family, which was surreptitiously snapped in the underwater worlds.

All of these experiences together create a multi-faceted adventure in the undersea world without ever setting foot in the water. Now, the treasures of the deep are available to every member of the family, young and old alike at The **Ocean Adventure™**, only at Saraya Aqaba.



### Retail Shop

Located near the exit within the entrance lobby, you will enjoy a lasting underwater experience with the opportunity to swim your way through aquarium apparel, collectibles, toys, books and custom art pieces specially designed for undersea enthusiasts.

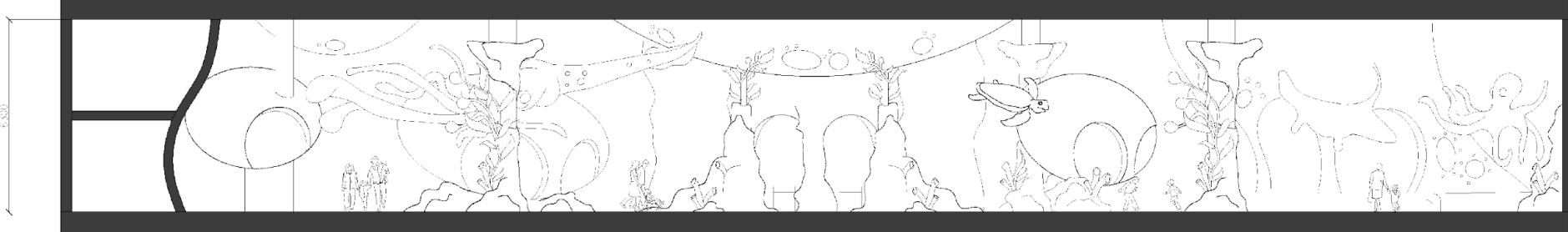
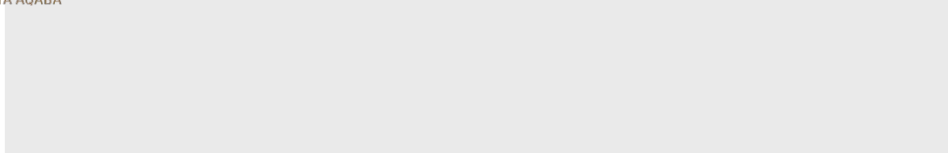
### AREA H: VIP/ Birthday Party Room

The VIP room is located on the mezzanine level with a view of the entire **Ocean Adventure™**. It is the perfect location for an event. Whether wowing guest's with unique corporate events or making a big splash with a birthday, graduation or holiday party, The **Ocean Adventure™** VIP room is designed to be flexible and available for all ages.

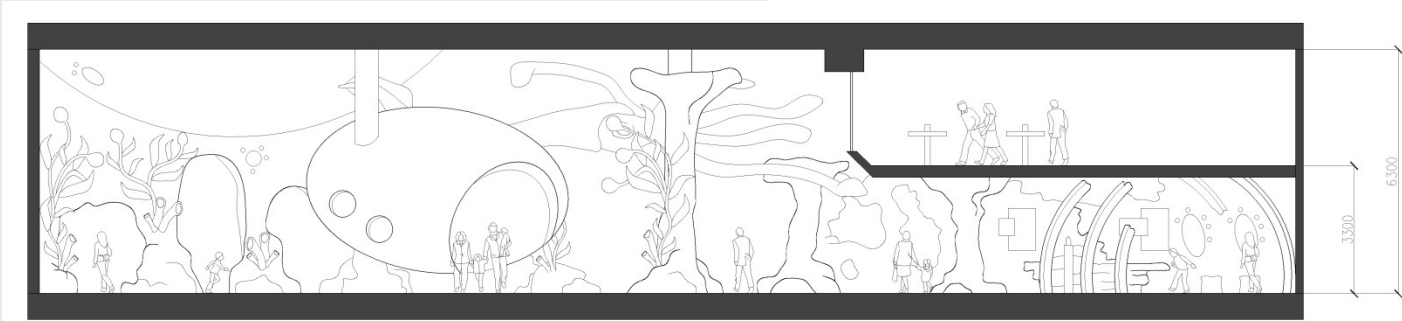


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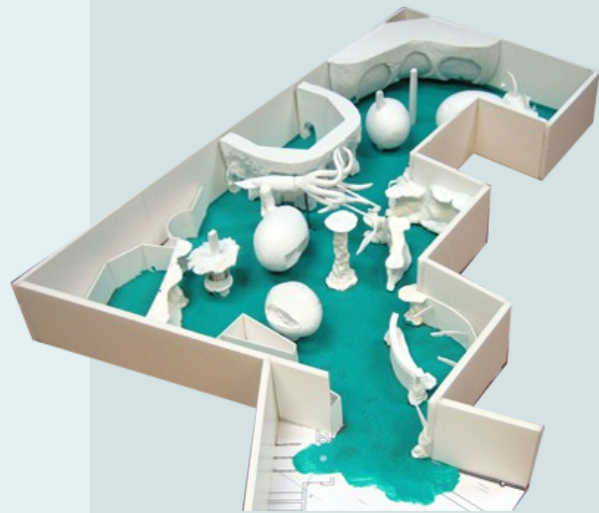


Section A-A



Section B-B

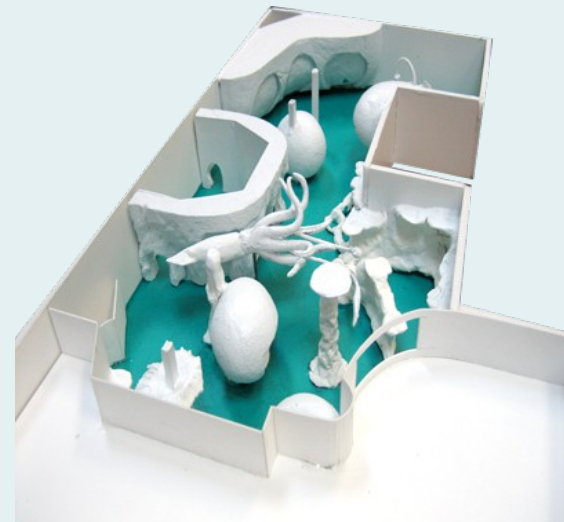
## OCEAN ADVENTURE AQUARIUM



Aerial Perspective Study Model

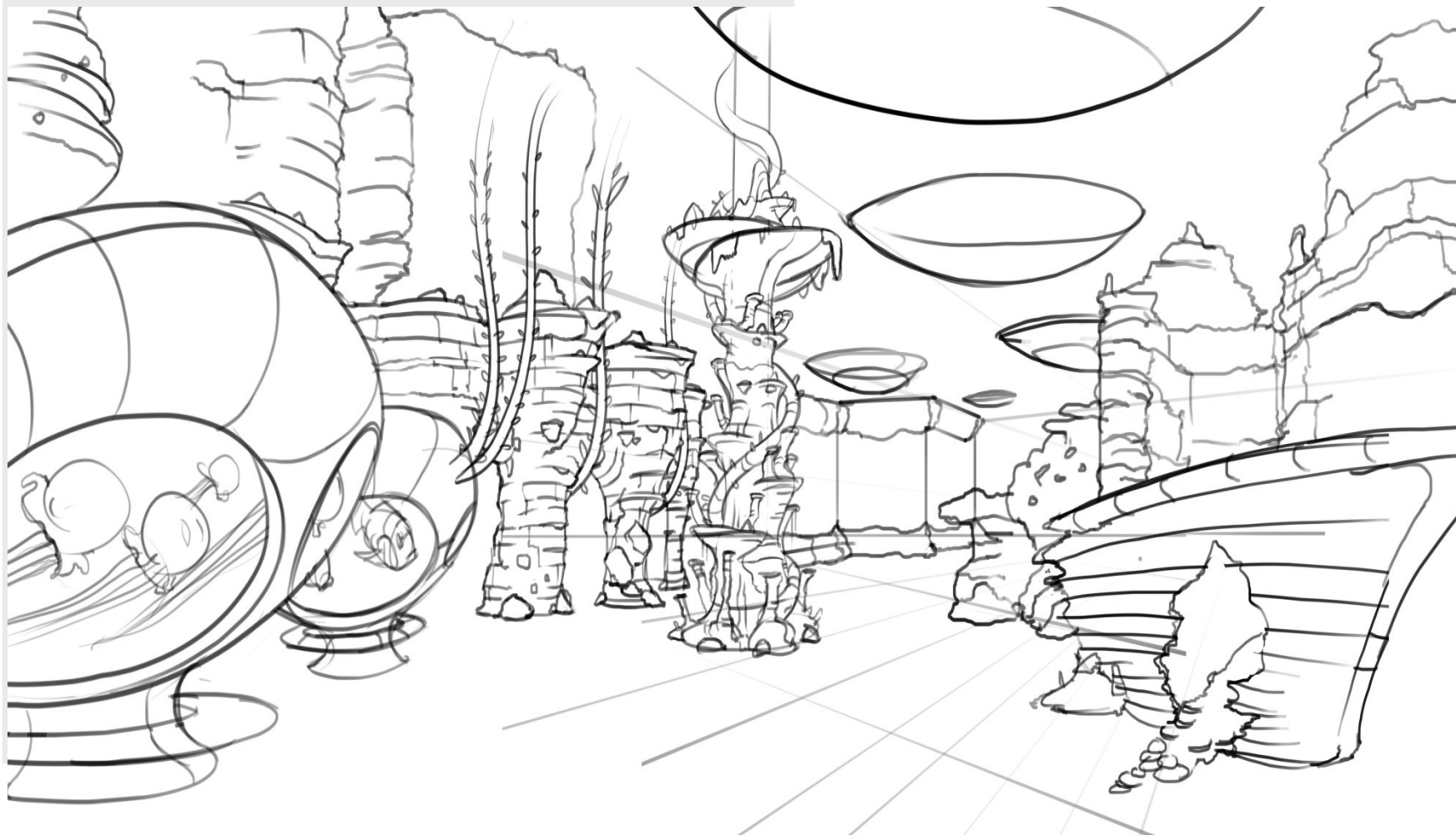


Interior View Study Model



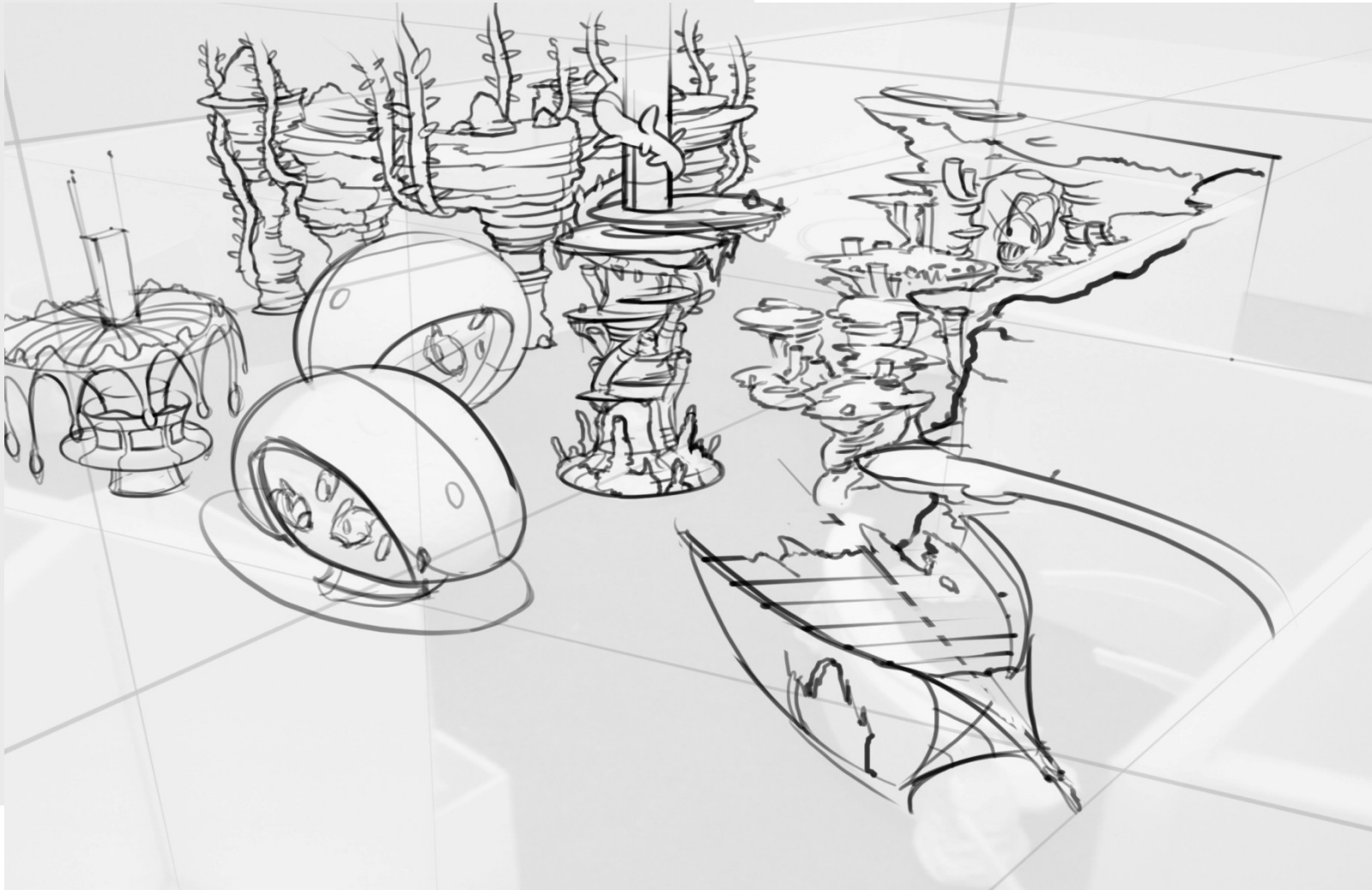
Perspective from VIP Study Model

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ENTRANCE SKETCH

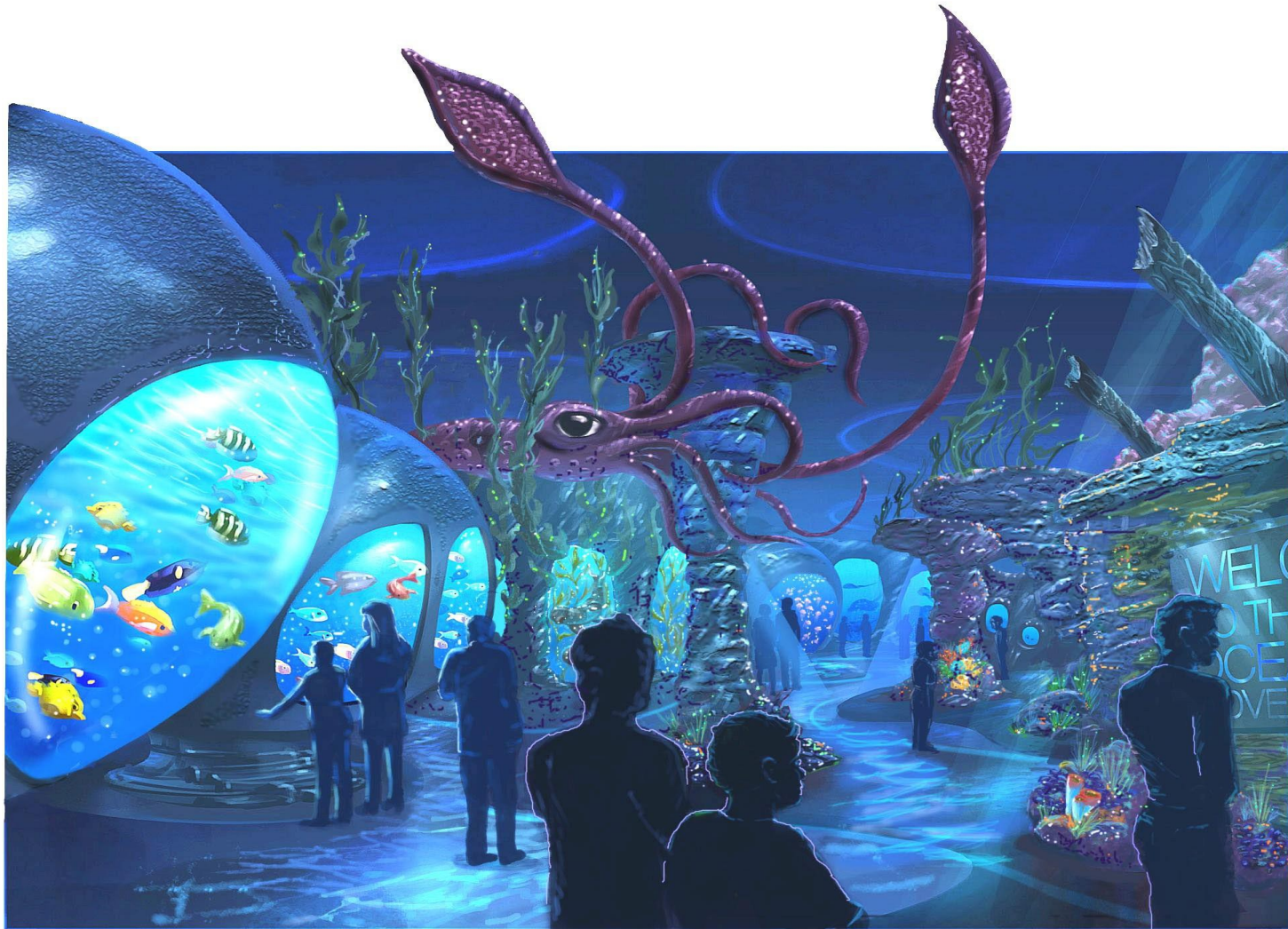
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BIRD'S EYE/VIP PERSPECTIVE SKETCH

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INTERIOR RENDERING

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