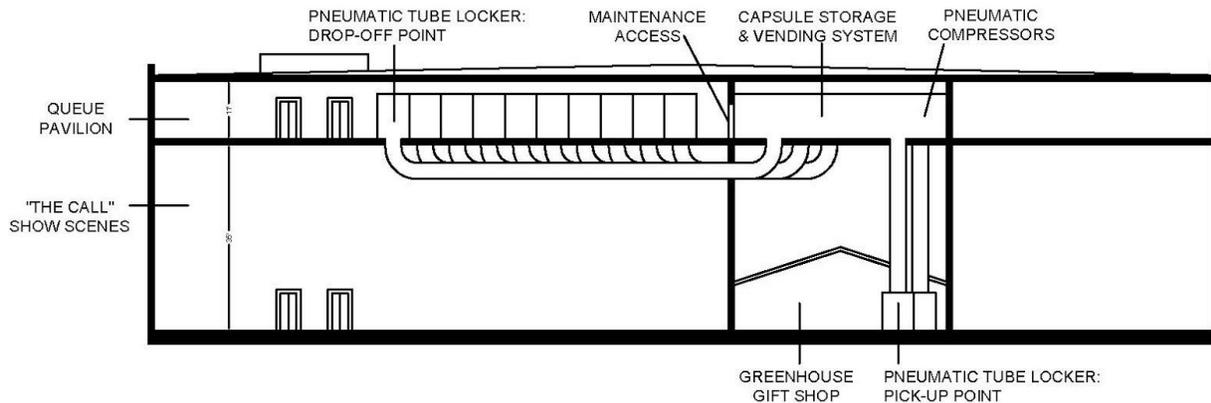


DEVELOPMENT WRITTEN PROPOSAL
Team 36

Pneumatic Tube and Vending Locker System activated by QR Code:

Upon entering the queue pavilion on the upper floor via an elevator, the guest will move through a forest of themed trees native to British Columbia. Not only will these trees be the visitor's introduction to the awe-inspiring nature that fills the Fraser River Valley, but they will also generate **QR-coded and Bluetooth embedded stickers** (QRC&B Sticker) themed as Wilderness Passes. Guests can store their items in the tree-themed locker while enjoying the attraction. After securing their items inside the tree's opening, a **pneumatic tube and vending system** will send a capsule containing their items to a storage location (Fig. 2.1).

Guests will step up to one of the tree trunk stations, which will print out their sticker. Since each QR code is unique and linked to a guest, these codes can be scanned by our locker system to open the capsule at the drop-off point and retrieve their items at the pick-up point.



Pneumatic Tube and Vending Locker System (Fig. 2.1)

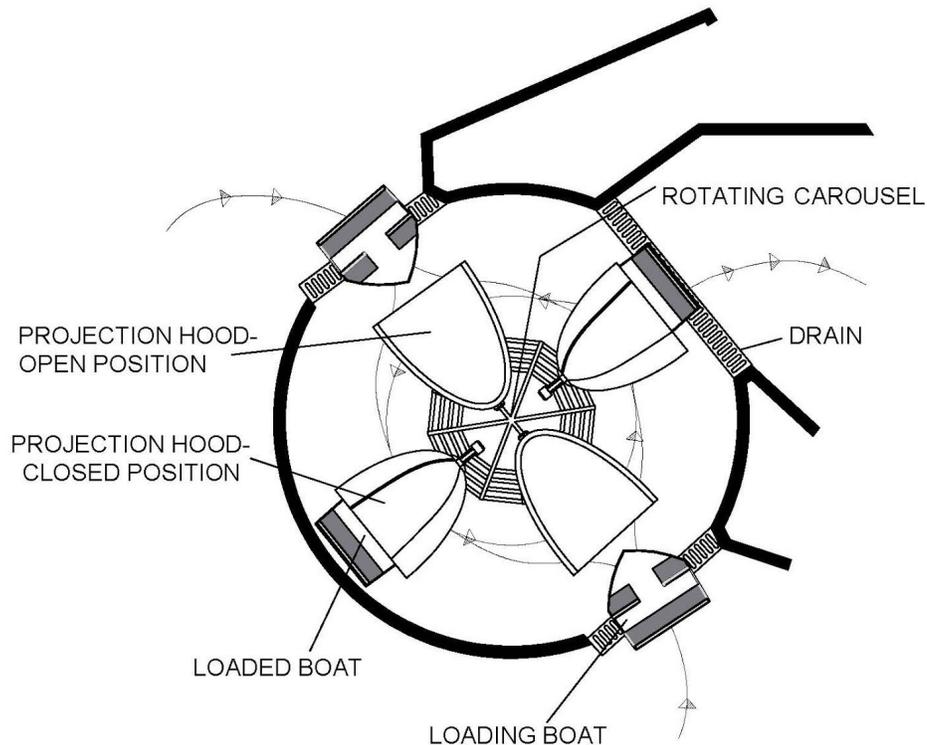
After flying through the Northern Lights, guests will float ashore and unload onto a wooded path surrounded by the same trees that they loaded their belongings into prior to riding. If guests stored belongings at the entrance to the ride, they can retrieve them by scanning the QR-codes on their stickers at these tree stations. The pneumatic tube and vending system will locate their capsule, and the trunk of the tree will open to reveal their belongings. The capabilities of the QRC&B Stickers are further discussed in the Innovation Proposal.

Queuing Pavilion and Observation Exhibits:

Our queuing pavilion, Treetop Encounters, gives guests an opportunity to learn about the ecosystems explored on the attraction in more depth. Themed as treetop dwellings, guests can overlook the first three scenes of the ride that deal with the forest, mountains, and shipping ports of British Columbia. Each of these is matched by an exhibit exploring relevant topics like water pollution and deforestation. The ride scenes then act like dioramas for the content in the exhibit. Guests can walk to the exhibit on bridges that cross over Scenes One and Three, or on the deck of the freight ship in Scene Two.

Media Projection Carousel:

In Scene Five of our attraction, we utilize a carousel of media projection hoods to cover each ride vehicle (Fig. 2.2). Since the boats are meant to sail through the open ocean alone, the projection hoods provide an enclosed experience for the scene that can project video content. A rotating carousel holds four ellipsoidal hoods that open and close on arms. The vehicle is guided into the carousel as the hood closes over it. It can then rotate in sync with the motion of the vehicles. Two vehicles can enter and exit at a time from opposite entry points. The carousel rotates through multiple times, holding all boats until the scene is complete and the hoods lift.



Media Projection Carousel (Fig. 2.2)

Northern Lights Scene- Lighting Effects:

In the penultimate scene of the ride, guests are lifted into the sky through waves of the Northern Lights that reunite their broken boat. Using a collection of projectors throughout the show set room, paired with an ultrasonic misting system located in the catwalks of the space, guests can travel directly through a three-dimensional recreation of the Aurora Borealis. By aligning narrow laser projection images from multiple source points, a hologram effect can be achieved from the light beams intersecting with one another through the mist particles. This not only surrounds guests in the light and lets them feel at one with the sky, but the mist adds a soothing tactile experience. From the Bluetooth sticker data profiles of the guests on-board, animals that guests loved in the queue pavilion can appear in the Northern Lights using prebuilt footage of 15 animals.



Lab Test of Laser Projection Image through Ultrasonic Mist (Fig. 2.3)

Digital Souvenirs:

In addition to acting as a retrieval tag, the QRC&B Sticker will be a digital souvenir that every guest will be able to take home. After departing the attraction, guests can scan the QR-code with their phone. This will take the guest to a digital postcard customized specifically for that guest based on the Bluetooth data gathered from their time in the queueing pavilion. Included in the postcard will be the animal that joined the guest in the Northern Lights sequence of the ride and the option to plant-a-tree of the same variety that they stored their belongings in. The website also includes interactive digital versions of the Observation Exhibits and a chance to explore the topics and ecosystems in more depth.

Greenhouse Gift Shop:

The gift shop has been remodeled as a greenhouse that serves multiple purposes. Not only does it tie into the story and offer a transition from the wilderness of our attraction back into the aquarium, but the fresh greenhouse air is siphoned off and pumped into the ride scenes to add the smell of earth and chlorophyll produced by the plants.

This greenhouse presents unique merchandising opportunities that tie into the experience and the educational mission of the aquarium. The shop houses native plant varieties as well as plants embedded with fiber optic so guests can take the glow of the Northern Lights home. We also customized dome projectors along with a set of 15 animal templates so guests can take home the Northern Lights and see the animal they saw on the attraction.

Continuation of the Educational Mission:

The plants, projectors, and QRC&B digital souvenirs will allow the educational mission of the aquarium to continue past the experience, and it will allow the guest to understand the difference that they can make in the world. With our digital exhibits and plant-a-tree initiative, our experience goes beyond the aquarium and gives back to British Columbia in a meaningful way.

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