

2020

BUILDING PROGRAM—THE ALCHEMY PLANT



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6/9/2020

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1.0 INTRODUCTION

What is the Alchemy Plant by Alice Clark, Executive Director

We are a group of community members who have come together with the goal of creating a unique space in Bellingham where people of all ages, abilities and backgrounds can play, be surprised and astonished, engage in creative activities, discover new things and, more than anything, have loads of fun.

We believe that this place will tempt everyone and will:

- Provide a hands-on, interactive, safe, fun place for children to run around and explore
- Give young people a place to come and hang out with friends while also (inadvertently) being exposed to art, science and more while having fun at the same time
- Be a place for parents to bring their energetic children where they can allow them to play freely, knowing they are safe
- Be a space for parents and other adults to engage in play and creative activities as well.

We want everyone who visits our future home to be amazed, delighted, inspired and welcomed—returning again and again, while discovering something new each time.

INFLUENCES

City Museum, St. Louis MO

Meow Wolf, Santa Fe NM

The Mattress Factory, Pittsburgh PA

MASS MoCA, North Adams MA

Le Galerie des Machines de Nantes, France

Children’s Museum of Manhattan, NYC

Museum of Ice Cream, San Francisco CA

OneDome, San Francisco CA

Museum of Illusions, NYC



City Museum, St. Louis MO



Meow Wolf, Santa Fe NM



The Mattress Factory, Pittsburgh PA



MASS MoCA, North Adams MA



Le Galerie des Machines, de Nantes France



Museum of Illusions, NYC

2.0 PROGRAMMING

Building Programming is the process of gathering and analyzing information about a proposed facility before trying to solve it with design. For The Alchemy Plant we used a highly interactive process that is patterned after that outlined in William Pena’s seminal book *“Problem Seeking”*. Working with the Building Committee, we collaborated to establish the Design Determinants. These Design Determinants are subdivided into three categories: Goals, Facts, and Needs.

GOALS are the big picture, the Mission Statement for the project. Every design decision should be able to be traced back to one or more Goals.

FACTS are the things that will not change. Zoning and Building Codes are facts. Wind and solar exposures are facts. An existing building is a fact. The budget is a fact.

Participants

The Alchemy Plant Building Committee:

Alice Clark, President of the Board, The Alchemy Plant

Amy Chaloupka, Vice President Board of Directors

Kate Clark, Board Secretary

Ginger Oppenheimer, Board Treasurer

NEEDS are the spaces that are desired and the elements within them.

Once the Goals, Facts and Needs are agreed upon, we then move onto the next phase, Concepts.

CONCEPTS is the process of organizing each Need in relation to the other Needs. A scaled floor plan of the building was used as a background for organizing the Needs.

Working over two sessions we identified the Goals, Facts, Needs and Concepts illustrated on the following pages.

The great architect Louis Sullivan famously said, “Form Follows Function.” This process is the embodiment of that mantra—the form of the floor plan is a direct result of the function as expressed by the Programming participants.

Ramona Abbott, Board Member

Jay Darling, Board Member

Thor Myhre, Board Member

Michael E. Smith FAIA, Programming Facilitator

Nicole Staron, Assistant Facilitator

2.1 GOALS

The Goals of The Alchemy Plant are to:

- Be an immersive experience
- Be a paradigm shift
- Be perception shattering
- Be gritty
- Be steam punky
- Be mind blowing
- To instill a sense of awe
- Be a weird experience, more than literal
- Be about the process, not the product

Furthermore, The Alchemy Plant should:

- Be kinetic
- Be interactive
- Encourage creativity
- Encourage play
- Encourage discovery
- Be fun
- Be safe
- Provide “edutainment”
- Be unique to Bellingham

In doing so, The Alchemy Plant will:

- Be makers driven
- Value paying artists
- Be open to all ages, all accessibility, all classes
- Use natural elements
- Reuse existing industrial artifacts
- Be intentional by design
- Be self supporting



2.2 FACTS

The existing building:

- was built in 1944
- is approximately 30,000 square feet
- is currently known as the Alcohol Plant
- is part of the Downtown Waterfront Neighborhood
- is a part of the Heritage Trail
- is built on fill

The site:

- provides excellent solar access
- may be subject to sea level rise
- is bordered on the east by an active railroad track
- is bordered on the south by Laurel Street

The budget is \$20 to 22 million



2.3 NEEDS

- Highly visible spaces for artists and craftspeople
- Space for making things
- An awe-inspiring entrance
- Event space with stage
- Merchandise and gift shop
- Space for office/administration
- Coat room
- Rooftop restaurant
- Freight elevator
- Parking for 100 cars
- Bus drop-off
- Rooftop icon visible from afar
- Street appeal
- Playground with active year-round elements
- Flexibility
- Permanent installation to focus on people, place and history
- Rotating exhibits to feature interactive installations
- Native American stories
- Easy ingress/egress for people and materials
- Living wall
- Time tunnel
- Exhibit storage with racking
- Zip line connect to existing digester tanks
- Slides
- Bridges
- Climbing structures
- Structural improvements to be highly visible
- Reuse industrial artifacts



Iconic rooftop



Living wall

3.0 CONCEPTS

3.1 SITE PLAN

The Alchemy Plant fronts onto Laurel Street (1). It is bounded on the west by The Heritage Trail (2), a linear park to be developed by the Port of Bellingham. On the east side are the active railroad tracks (3). The Alchemy Plant is accessed by a new roadway (4) to be built by the Port of Bellingham concurrent with the development of The Heritage Trail. A new service road (5) parallels the railroad tracks. On the north side of The Alchemy Plant is a 100-car parking lot (6), which also has room for bus drop-off (7). Entrance to The Alchemy Plant is through a ceremonial entrance sculpture (8). The north side of The Alchemy Plant is buttressed by new construction that will contain the artist studios (9). The south side is buttressed by exposed steel frames (10). The combination of artist studios and exposed frames is intended to brace the large, open west end of The Alchemy Plant against wind and earthquake forces. Rooftop dining (11) is on the east end of The Alchemy Plant. This rooftop dining will look down on the lower roof (12), which will be developed as a playground. One of the features of the rooftop playground will be a zipline that connects to a new tower element (13) in the middle of The Heritage Trail. The zipline could be extended to the Digester Tanks (14). Another feature of the rooftop playground is a tubular slide (15) that leads from the roof to an outdoor play area at the ground level. The southern edge of the play area will be defined by a secure decorative fence and a row of Solar Trees (16). The existing Pulp Storage Towers (17) provide a dramatic backdrop.



Conceptual Site Plan



Zip line through the park



Slide at The Tate Modern London

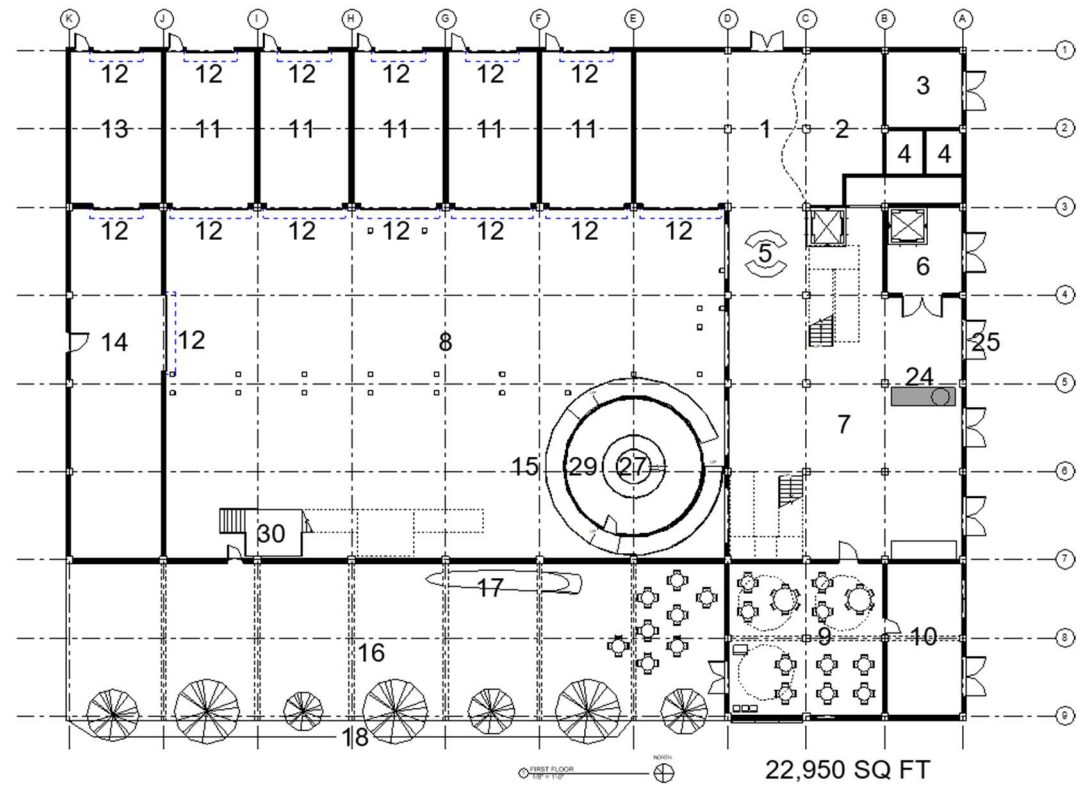


Solar trees

3.0 CONCEPTS

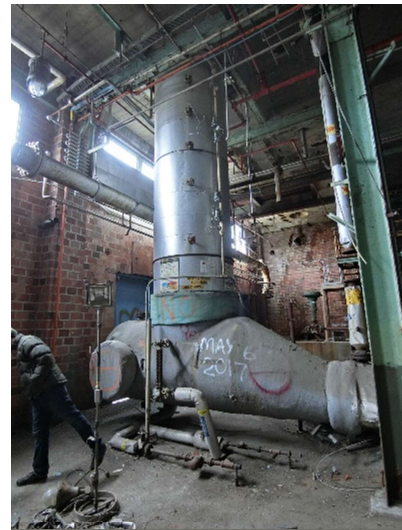
3.2 GROUND FLOOR PLAN

As you approach The Alchemy Plant, you enter into a large Lobby/Pre-function space (1). This space is intended to accommodate large groups of people who arrive at the same time: i.e., school buses. Immediately adjacent to the Lobby is the Gift Shop (2), positioned so that people can access it without entering The Alchemy Plant. It is divided from the Lobby by an operable see-through screen to provide security after-hours when there may be other functions occurring in the facility. Administrative Offices (3) and Restrooms (4) fill out this corner of The Alchemy Plant. Ticketing and Information (5) is positioned to provide not only a secure entry point but also the ability to monitor the rest of the Ground Floor, and the adjacent stairs and elevator, thereby lowering staffing needs.



As mentioned previously, the service road is on the east side of The Alchemy Plant. A combination Receiving/Mechanical Room (6) with a separate freight elevator provides a secure entry point for goods and services.

As you proceed past the Ticket/Information Booth, you enter into the first of several exhibit areas (7). This space is highlighted by refurbished catwalks, abandoned piping, and a very large industrial artifact (24) that is pictured to the right. At the south end of this space is the Café (9). This space features 3 large denaturing tanks that have had their bases cut away to allow seating under. The Kitchen (10) is located to allow easy access to the aforementioned service road.



Industrial artifact on Ground Floor



Existing denaturing tank

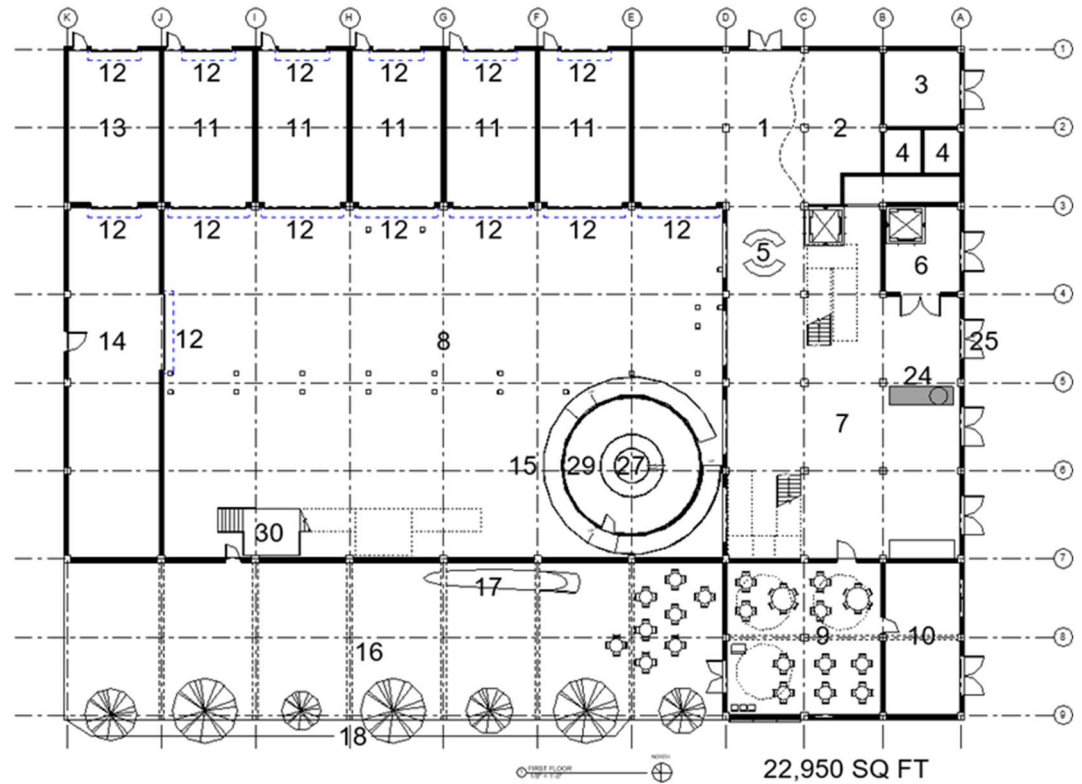
3.2 GROUND FLOOR (cont.)

The primary focus of the Ground Floor is the Main Exhibit Hall (8). This is a very large, 3-story high space with exposed catwalks, trusses, piping, and many industrial artifacts, including a large wooden tank (29). Access to the inside of this tank is via a spiral ramp (15) that eventually extends to the roof. The inside perimeter of this tank is envisioned to be for display, while a climbing structure or slide (27) would be in the middle.

The north side of the main exhibit hall is flanked by artist studios (11) and a staging area (13) that are new construction, intended to buttress the tall walls of the main exhibit hall. These studios feature overhead doors (12) that open both to the exterior for easy movement of materials, and to the interior, allowing patrons of The Alchemy Plant to observe the creative process firsthand.

The west end of the Main Exhibit Hall is flanked by an area for Exhibit Storage (14), while the south wall features a stair to upper levels that incorporate a stage (30).

Outside the Main Exhibit Hall, on the south side, is a fenced-in playground that features a slide (16) that descends from the roof. The playground has exterior seating for the adjacent Café (9). Flying buttresses (18) brace the wall of the Main Exhibit Hall.



Interior of Main Exhibit Hall



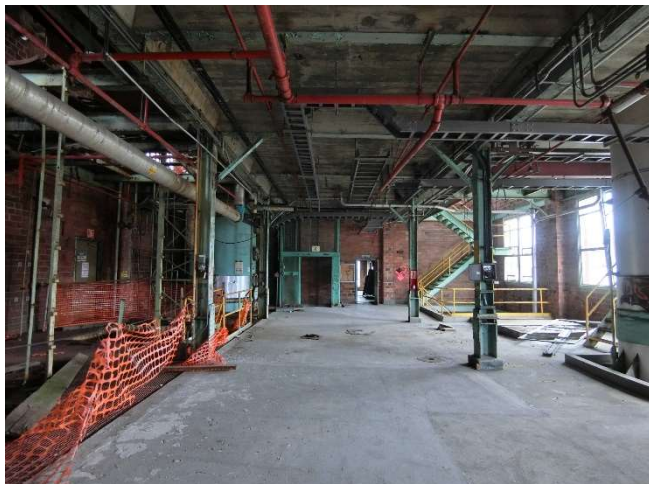
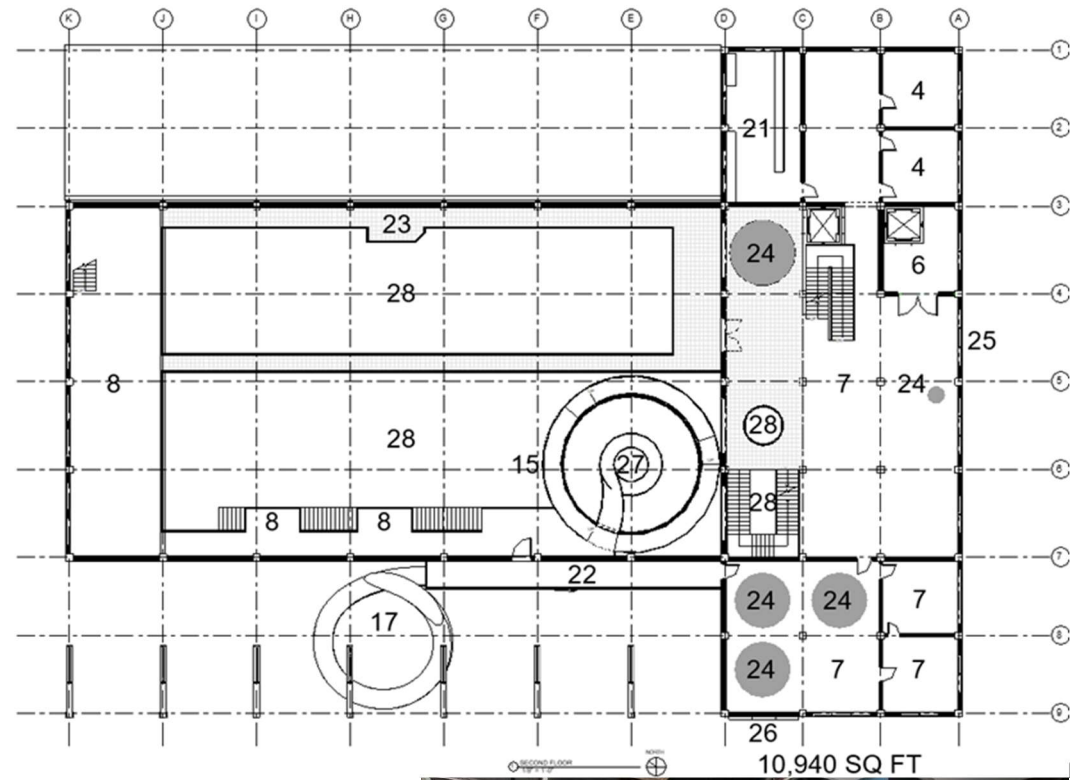
Large wooden tank in Main Exhibit Hall

3.0 CONCEPTS

3.3 SECOND FLOOR

As you ascend either the stairs or the elevator to the Second Floor of the Alchemy Plant, you enter an area designated for Permanent Exhibits (7). A large industrial artifact is against the east wall (24), a continuation of the same artifact on the Ground Floor. The floor of this room is a combination of concrete and industrial grating, which allows patrons to see through to the floor below.

Behind the stairs and elevator are Restrooms (4) and the former Control Room (21). The Control Room features the original control panel, an amazing combination of circuitry, switches, dials and gauges that is intended to be refurbished as an object of play.



View of Second Floor looking east



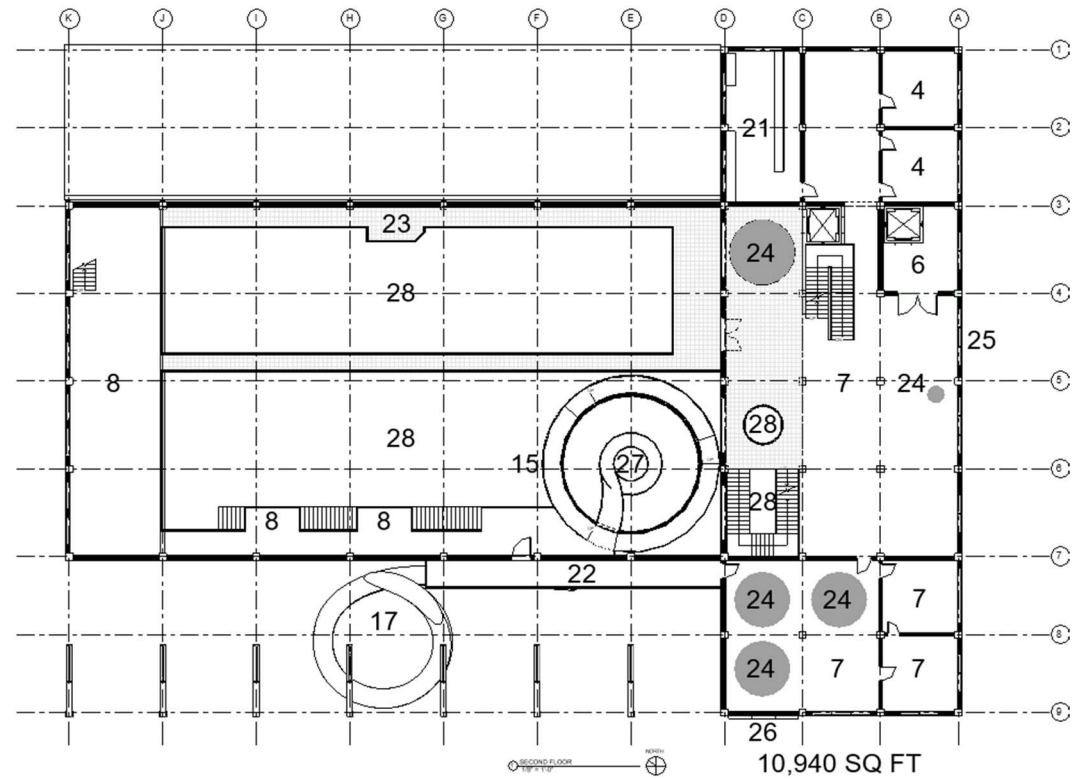
The Control Panel

3.3 SECOND FLOOR (cont.)

Adjacent to the stairs and elevator is another industrial artifact (24), a former alcohol still. The base of this still actually starts on a lower intermediate catwalk, and is centered over the entry desk below. The floor around this still is industrial grating, allowing patrons to see through to the Ground Floor.

The south end of the Second Floor contains 3 rooms (7) that are designated for permanent exhibits. The largest of these rooms features the tops of the denaturing tanks (24) that start in the Café below.

The Second Floor opens into the Main Exhibit Hall, where a series of catwalks lead you to the Rotating Exhibit Area (8) built over the Storage Room below. New windows in the west wall will provide daylight.



Alcohol still



Denaturing tanks



Catwalks in Main Exhibit Hall

3.3 SECOND FLOOR (cont.)

New stairs and spiral ramp (15) from the Main Exhibit Hall floor connect at this level. This is where the slide or climbing structure (27) inside the large wooden tank is accessed.

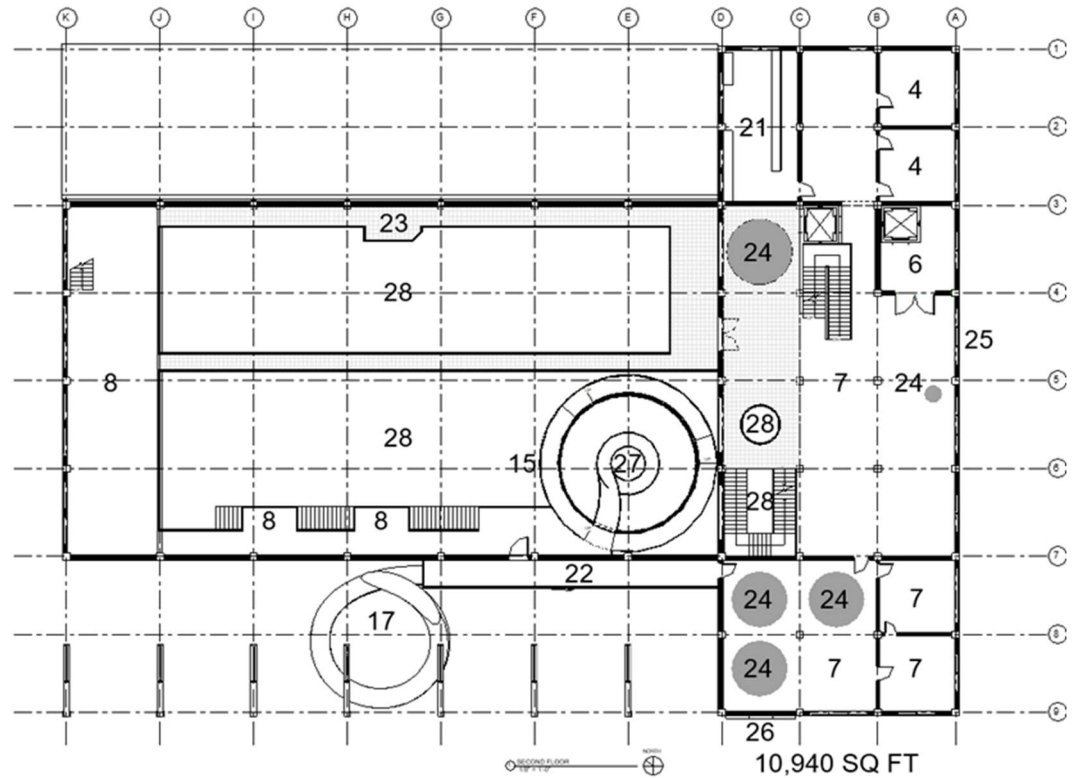
An exterior door in the south wall leads to an existing catwalk (22) that we envision as a SnackWalk. We envision the south wall being a Living wall, potentially with edible fruits like grapes. The SnackWalk also connects to the room with the Denaturing Tanks.

Because the south wall has excellent solar exposure, we envision photovoltaic panels (26) installed vertically. An example is pictured below.

The east wall facing the South Hill Neighborhood of Bellingham is envisioned as a mural (25).

Areas labelled (28) on the floor plan are open to the floor below.

Other spaces on the Second Floor include Restrooms (4) and the Service Elevator (6).



Living wall



Vertical photovoltaic panels



Indoor climbing sculpture

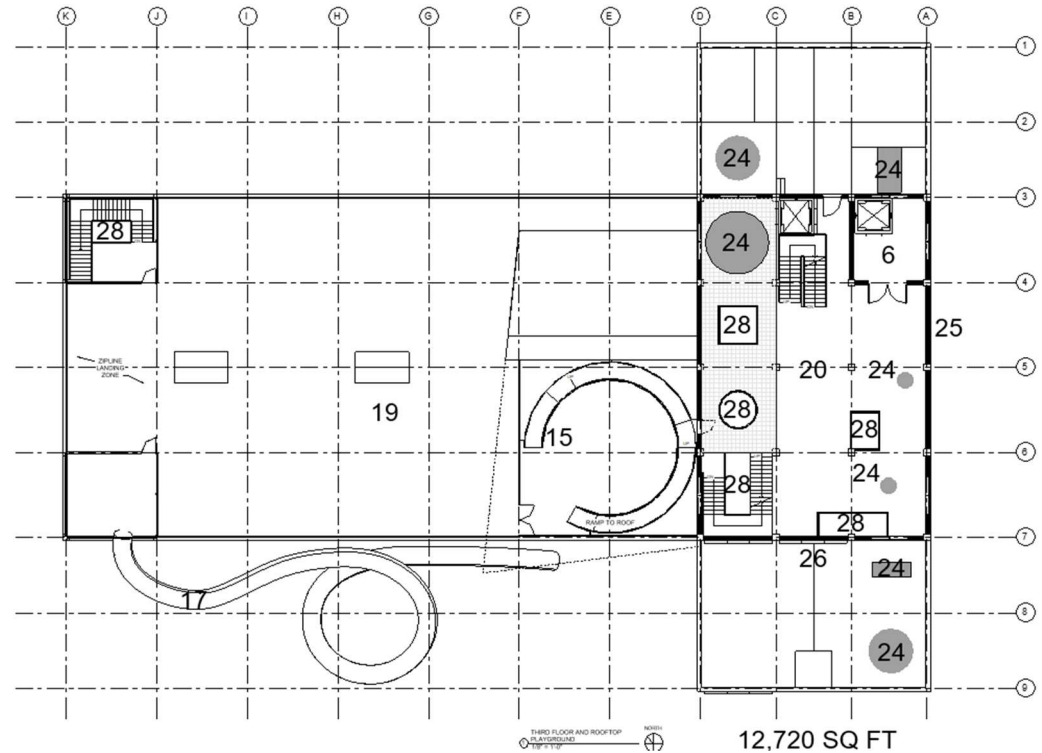
3.0 CONCEPTS

3.4 THIRD FLOOR

The third floor of The Alchemy Plant opens onto the rooftop playground (19). Glass-walled enclosures house the top termination of the spiral ramp (15), the entrance to the slide (17), and northwest stairs. The roof over the spiral ramp is an extension of the playground. The playground will feature an iconic element that is visible from a distance and many other play elements. We envision elements that pay homage to Bellingham's history—logging trucks, ships, trains, objects that are meant to be climbed on, in and over.

Inside the third floor, we envision an area for permanent or rotating exhibits (20). The west side of the floor is industrial grating, creating an openness all the way down to the first floor. Additional roof areas flank the north and south sides of the third floor, with many additional industrial artifacts (24).

The service elevator (6) allows for easy movement of displays. The south wall is envisioned as vertically mounted photovoltaic panels (26).



Rooftop sailing ship



Steampunk train



Logging truck sculpture

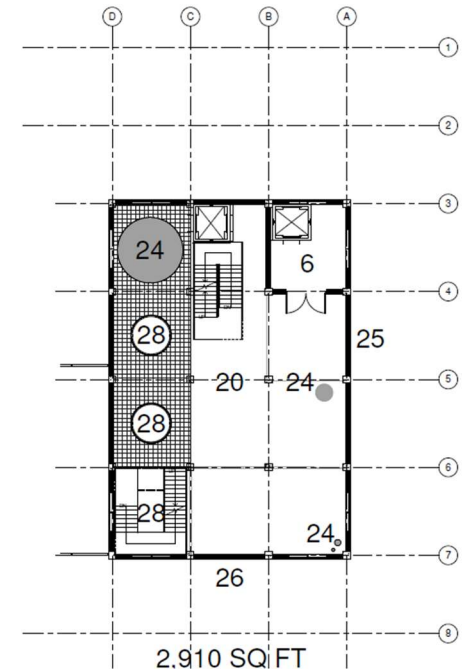


City Museum St. Louis rooftop

3.0 CONCEPTS

3.5 FOURTH FLOOR

The fourth floor is a two-story high space, filled with abandoned pipework, catwalks, cranes and various industrial artifacts. We envision this space as either permanent or rotating exhibits. To the greatest extent possible the pipework, catwalks, cranes and industrial artifacts would be cleaned, painted and left in place. The exterior of the south wall is a continuation of the vertically mounted photovoltaic panels (26).



Existing fourth floor



Existing fourth floor



Adaptive reuse before and after



Existing fourth floor



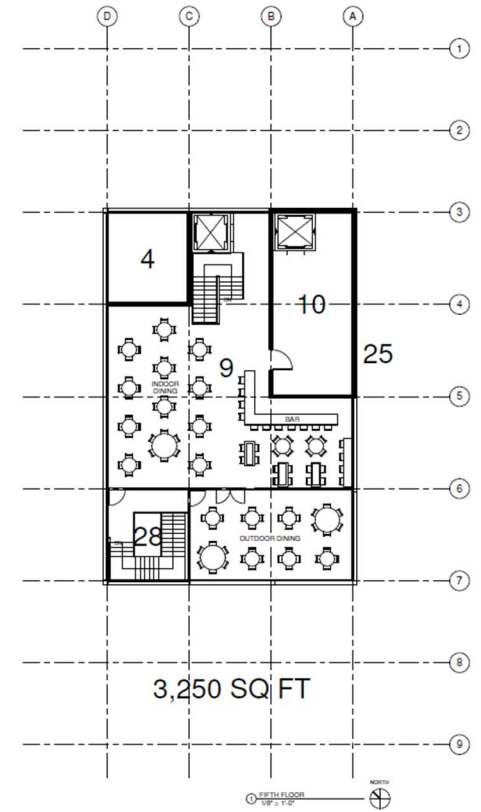
3.0 CONCEPTS

3.6 FIFTH FLOOR

The fifth floor of The Alchemy Plant is new construction. It is envisioned as a restaurant (9), primarily a glass box to take advantage of the views in every direction. The south side of the restaurant opens to an outdoor dining patio. The service elevator opens directly into the kitchen (10). Restrooms (4) are located at the rear of the restaurant.



Rooftop dining



Panorama from the roof of The Alchemy Plant

3.0 CONCEPTS

3.7 PROGRAMMING SUMMARY

Site Area: approximately 90,000 sf (2.06 acres)

Ground Floor: 22,950 sf

Second Floor: 10,940 sf

Third Floor: 12,720 sf (includes rooftop playground)

Fourth Floor: 2,910 sf

Fifth Floor: 3,250 sf (includes rooftop dining patio)

TOTAL FLOOR AREA: 52,770 sf

Budget: \$20 to 22 million (\$379 to \$417 per square foot)

4.0 SUMMARY

THE OPPORTUNITY

Bellingham has a thriving year-round tourism industry but lacks an indoor year-round commons where play, art, design and immersive experiences can bring people together in awe and delight.

Bellingham's Waterfront District is in the very beginning of a post-industrial renaissance after a 100-year run of pulp and paper mills. There are plans for a conference center and hotel, expanded university facilities and mixed-use residential/retail/office space. The Alchemy Plant will be something completely different that attracts people to play and explore the newly reclaimed area.

As a tourist destination, over \$550 million was spent in 2016 in Bellingham alone. Bellingham is a major retail destination for Canadian shoppers from Vancouver and the greater Lower Mainland. The Pacific Northwest's only vehicle passenger ferry to Alaska draws tourists to Bellingham as well.

Bellingham is less than 1.5 hours from both Seattle and Vancouver, B.C, attracting visitors from 2 major urban centers to a relaxed and smaller town. Bellingham regularly wins a place on diverse "top lists," from Outside Magazine's "Adventure Towns" to Forbes' "Best Places to Retire." Our city ranks as the second-best arts community in the country based on its number of active arts business licenses per capita. Our thriving arts and music scene is reflected in the monthly art walk, multiple summer music series events and year-round cultural offerings.

THE IMPACT

- Creation of 50 to 100+ jobs—from working artists and installation creators to administrative and operational staff and a multitude of jobs in between, the facility will offer a variety of employment options and opportunities.
- Similar models, like Meow Wolf and the City Museum, are listed as the top attractions of their respective cities (Santa Fe and St. Louis). After being open for only one year, Meow Wolf recorded more than 400,000 visitors, had created 100 new jobs and infused \$6 million back into the Santa Fe economy. After being open for over 20 years, the City Museum in St Louis now boasts close to 800,000 visitors a year and supports 120+ jobs.
- The Alchemy Plant would enhance the Waterfront District by providing an engaging and exciting entertainment option for residents and visitors alike year-round. The facility would offer guests and visitors to the hotel and conference center, The Granary, Waypoint Park and other waterfront anchors, a fun place to explore within walking distance.
- The Alchemy Plant would give the GP mill artifacts a new life - integrating them into play structures and installations throughout the facility, offering a compelling way to serve as interpretive elements.
- The Alchemy Plant would address the potential for the Alcohol Building as cited in Whatcom County Comprehensive Economic Development Strategy and a Waterfront District Adaptive Reuse Assessment, both of which support saving and redeveloping the building.
- The Alchemy Plant would support the Waterfront District as well as Downtown Bellingham by infusing visitors and residents into the districts, who have come to explore the entire downtown area.