

# **Grosvenor Public Artwork Presentation Package**

LIZ MAGOR

JULY 11 2003



City Wharf at foot of Carral St.  
1886 or 1887



### Approach to the Project

The recent transformation of Coal Harbour has been very rapid, both on land and on the water. The stretch of new development between Stanley Park and Burrard Street constitutes a very large swath of buildings of homogeneous vintage, while the docks have given up their commercial vessels in favour of the recreational craft.

Some material remnants of the Harbour's past are still visible; the gas docks, the buildings on Deadman's Island, the shore line of Hallelujah Point, the boat sheds of the Vancouver Yacht Club. If we are lucky these landmarks will remain useful so they can actively contribute to the complexity of the area. However, as our needs and means change, structures deteriorate or become obsolete. The drive to protect historic forms has resulted in the notion of 'living history', an approach that has merit but is, in itself, a kind of oxymoron.

This proposal approaches the problem inherent in the notion of 'heritage buildings' by creating a sculpture that has two equivalent signifiers, one of the past and one of the present, that are so completely wedded as to make a new form without a precise vintage. The idea is to take a detailed impression of an industrial building c.1880, and wrap it or coat it with a contemporary material; like an antique with a new car finish. Each of these categories, the traditional and the new, carries an ethos, a set of values that are normally kept apart, that may even contradict each other. Here they will be commingled in such a way that they can be considered together and separately, in alternation.

This proposal borrows the idea of animation from the living history museum, the concept of enlivening a site through performance or the simulation of period activities. In this sculpture the activity is a searchlight or beacon that appears to be housed in the building, sweeping its beam through the closed space with the occasional flash from the windows. This is meant to be discrete, a form of spirit or presence within.

### Description of the Project

This proposal involves the construction of a scale model of the freight shed found on the City Wharf at the foot of Carrall St. circa 1880's. Reducing this building to approximately half its original size results in a structure 7m long by 4m wide with a height of 3,5m to the peak. It's doors and windows are also reduced in scale with the freight doors being about 1.2m high.

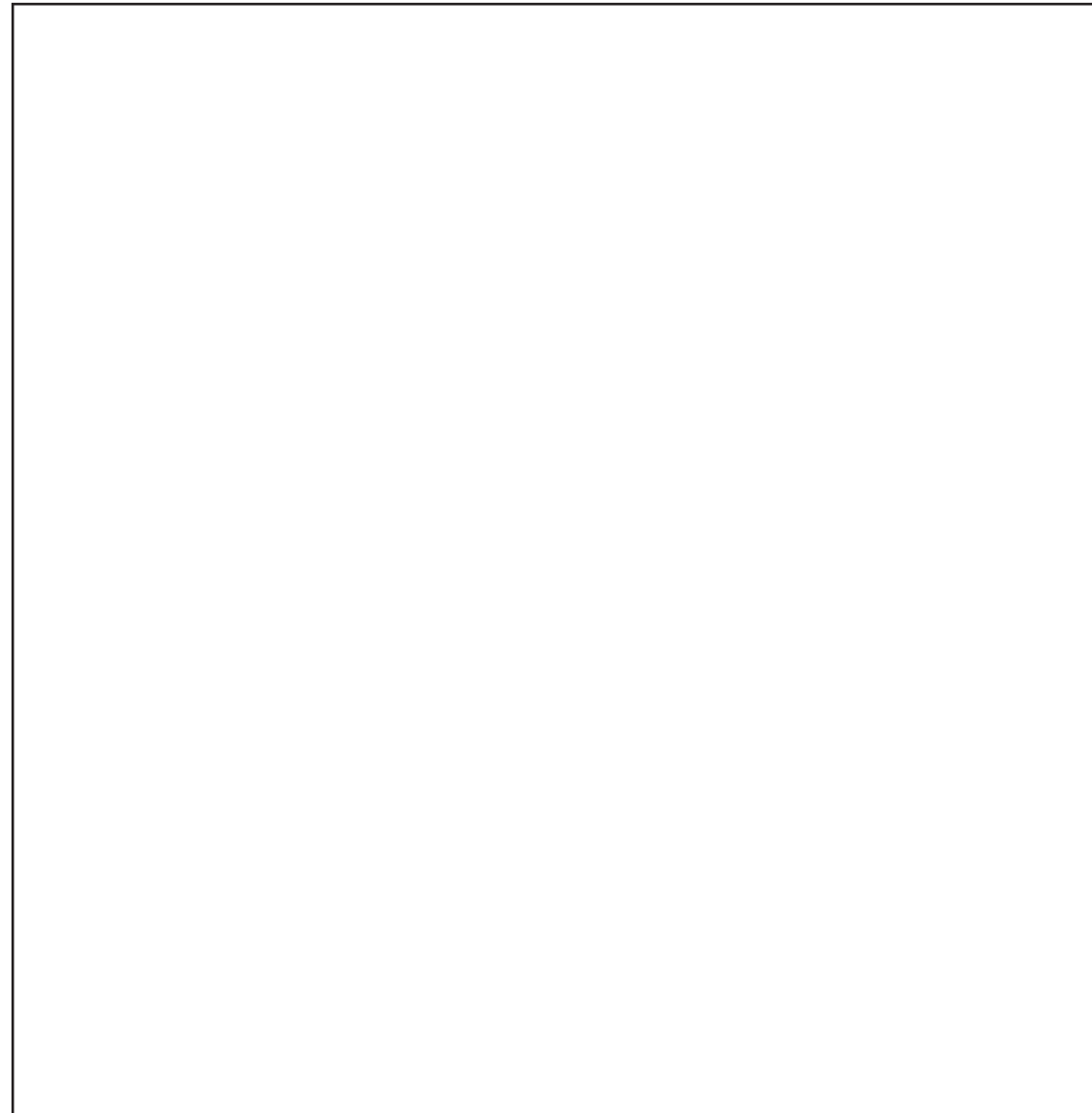
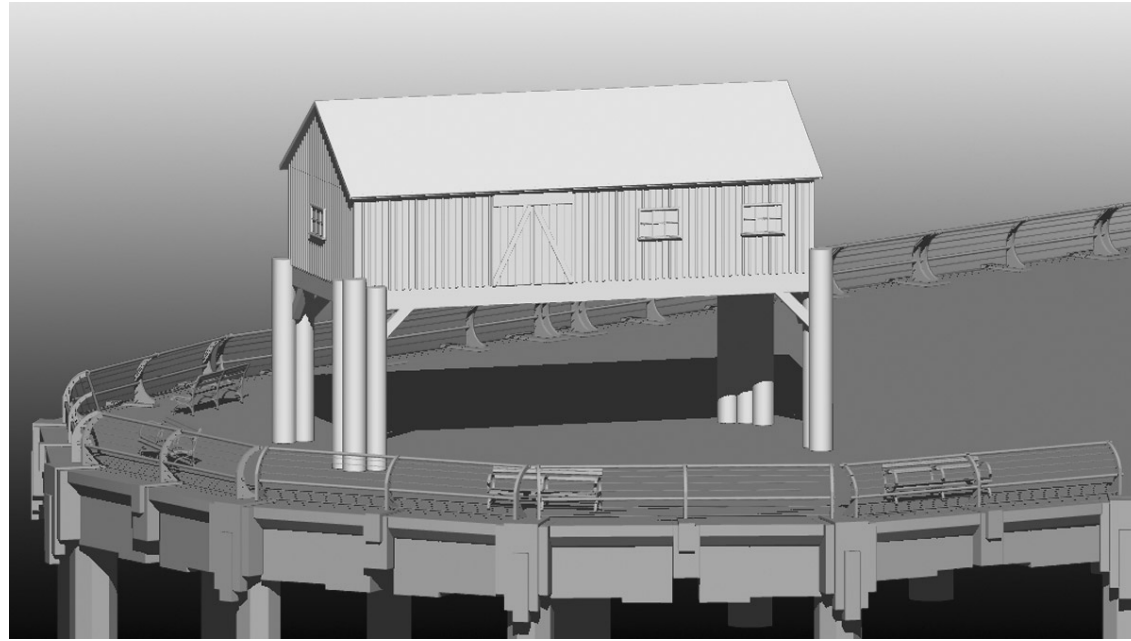
The building structure will be held 3m above the grade of the seawall by columns. Each side of the structure will have a window fitted with a Fresnel (lighthouse) lens. These lenses will magnify the light from low-wattage bulbs, which flash at regular intervals through each window. It will appear as though there is a rotating beacon inside the building, sweeping its signal through the interior of the shed in a continual circuit.

### Methods and Materials

To produce this image as a sculpture, a model of the shed, at a 1:2 scale, will be constructed using materials consistent with those of the original building; cedar board and batten siding, glass windows, cedar shingles etc. Rubber moulds will be made of the studio construction in order to cast the image of the building into aluminum. Two foundries have given quotes for the job. They both use sand casts but their suggested procedures differ. As their estimates are equivalent, a decision as to which method is best can be determined after some tests are made.

The cast panels will be given a protective coating using dry or wet coat paint. The finish being considered at this time is dry powder coat. The panels will be pre-baked to drive out moisture and air, and then one coat of silver or light titanium pigment will be followed by one or two clear-coats. This finish is intended to be similar to contemporary car finishes, silvery, iridescent, glossy. The whole building; roof, walls, doors, hardware, will be of the same material and finish.

To support the sculpture of the shed, an aluminum structure will be constructed on the site. This will include a base of aluminum columns and beams (table form), with an aluminum frame construction on top. The frame construction will be clad in aluminum sheet or mesh. A method of hanging the cast panels on the frame will be determined in advance so that the panels are provided with brackets or tabs that attach to the frame from the inside. The panels will be about 3' x 6'. There must be some form of catwalk attached to the table structure to provide a platform for assembly and maintenance.



### **Methods and Materials, *continued***

The aluminum columns will be clad or wrapped with hollow, precast concrete pillars. These pillars will be cast into moulds taken from real marine pilings. Low viscosity concrete (self-compacting concrete) with exceptional flow properties will be able to capture the detail of wood grain, barnacles, bolts and cable etc. normally seen on these forms. A method of attaching these forms to the aluminum posts will be determined.

### **Technical and Mechanical Elements**

The primary mechanical element of the sculpture involves a beacon of light, which flashes intermittently through each of the windows in the building structure. Fitting each window with a lens and a light can produce the effect of a beacon turning inside the building. Plastic or glass Fresnel lenses will magnify a programmable array of white LEDs; high efficiency, low wattage solid state light emitting diodes. These light sources have a typical lifetime of 100,000 hours, and each LED requires less than 100 milliwatts.

Light intensity can be adjusted, brighter in daytime, dimmed at night. It is also possible to provide the appearance of motion, as each individual element of the LED array can be controlled. Varying the intensity of the light source LEDs electronically for each window/lens/light unit will produce the flash. Each LED array will be programmed in such a way as to cause the windows to flash in sequence.

The placement of the sculpture on the site, and the placement of the windows in the building structure will be determined by the acceptable zone for these flashes to be visible. The flashes are meant to be very discrete, intending to provide a very subtle animation or phenomenal force to the identity of the building.

The electrical services will be provided to the interior of the building structure through one of the columns.

### **Maintenance Considerations**

Because the sculpture is based on the image of a weathered, waterfront building the deleterious effect of the environment on the sculpture will not seem out of place. However, the concept of the work involves the idea of an antique image being held within a contemporary surface, so maintaining the brightness and gloss of the coating is desirable. The recommended maintenance for powder coat finish is a 2x yearly powerwash with soft cloth or brush removal of soil. Properly maintained these surfaces are expected to last for 20 years. Because the building is assembled in panels, it will be possible to remove these for re-finishing if necessary.

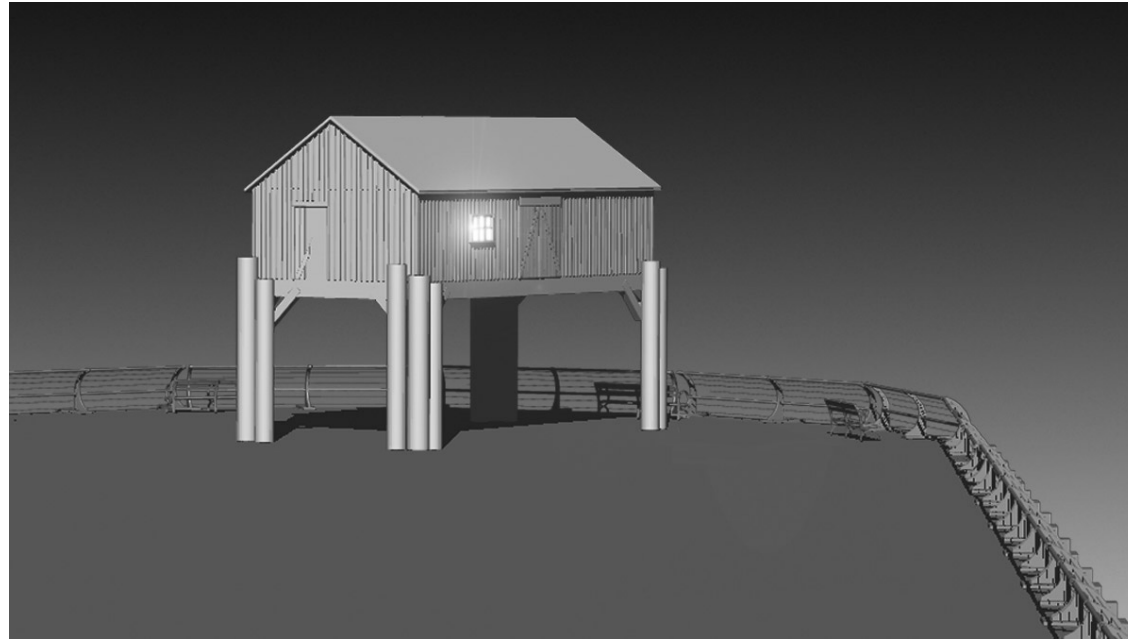
The concrete columns can be coated with an anti-graffiti medium. This medium has to be replaced if it is cleaned.

The design of the sculpture will provide a discrete draining system for rainwater run-off from the roof. This system will have to be kept clear of debris.

The LEDs will have to be replaced every 100,000 hours. The electronics for this system is expected to be extremely simple and therefore easy to maintain.

Discouraging bird and insect activity will be considered in the design of the sculpture.

A door panel in the floor of the building structure will provide access for maintenance.



**Budget Projection**

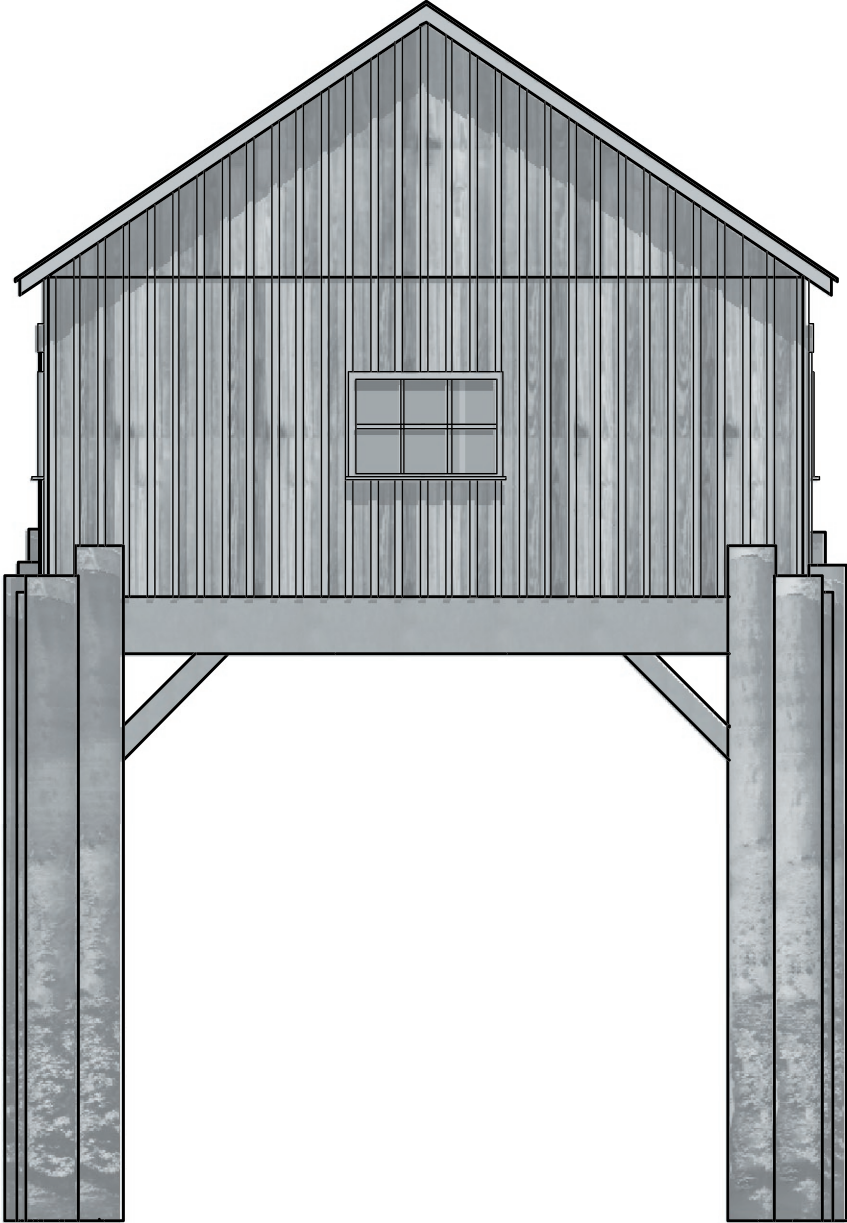
Structural engineering	5,000
Electrical engineering	4,000
Legal and accounting	4,000
Insurance	2,000
Permits	4,000
Travel	2,000
Shed model	15,000
Aluminum casting	215,000
Protective coating	8,000
Cast concrete columns	15,000
Fresnel lenses and LEDs	8,000
Windows	2,000
Aluminum structure	15,000
Electrical installation	6,000
Assembly of cast aluminum panels	9,000
Install concrete columns	8,000
Replace pavers and deck repair	7,000
Shipping & delivery	3,000
Artist's fee	70,000
Contingency	80,000
PST	18,000
<b>Total</b>	<b>500,000</b>

**Schedule of work:**

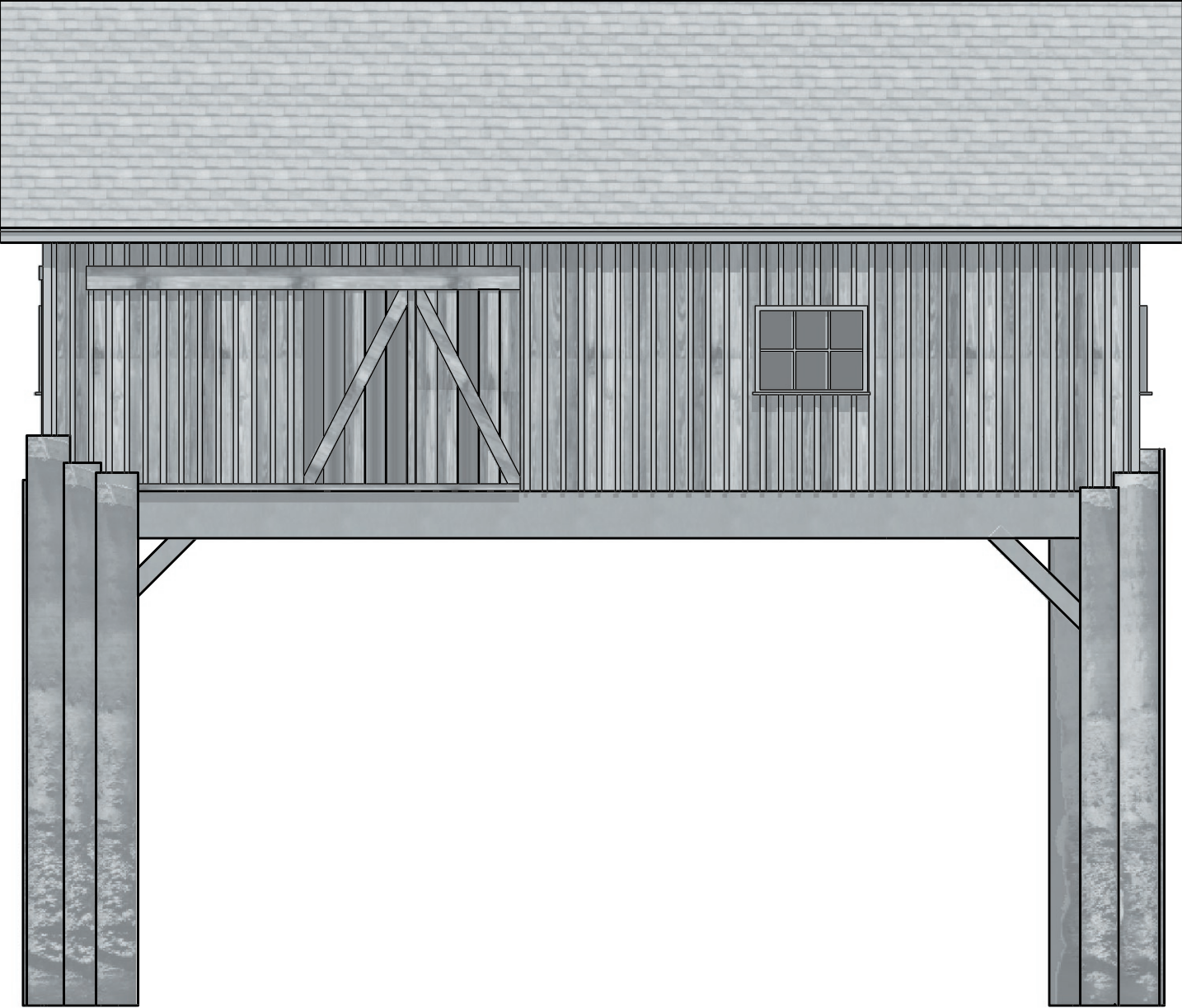
The construction of the model shed will take about 1 month. Upon receipt of the shed panels Harman Sculpture Foundry says it will take 10 weeks to cast the pieces, Arizona Bronze says it will take 28 weeks to cast the pieces. Until it is determined which foundry will be doing the work, a schedule cannot be finalized.

Final engineering and design decisions	6 weeks
Construction of the aluminum structure	3 weeks
Electrical	1 week
Harman Sculpture Foundry	10 weeks
Arizona Bronze	28 weeks
Powder coat	1 week
Assembly of cast panels	1 week

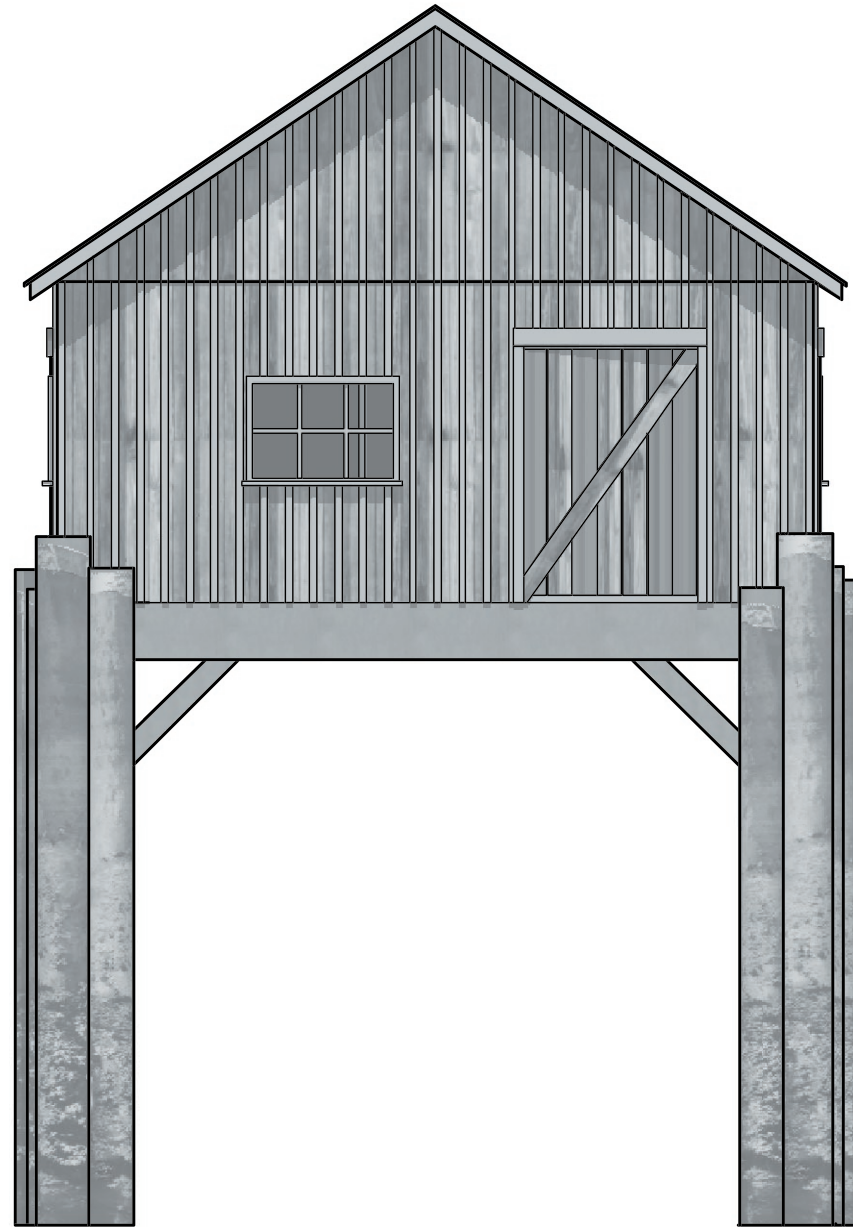
elevation north west



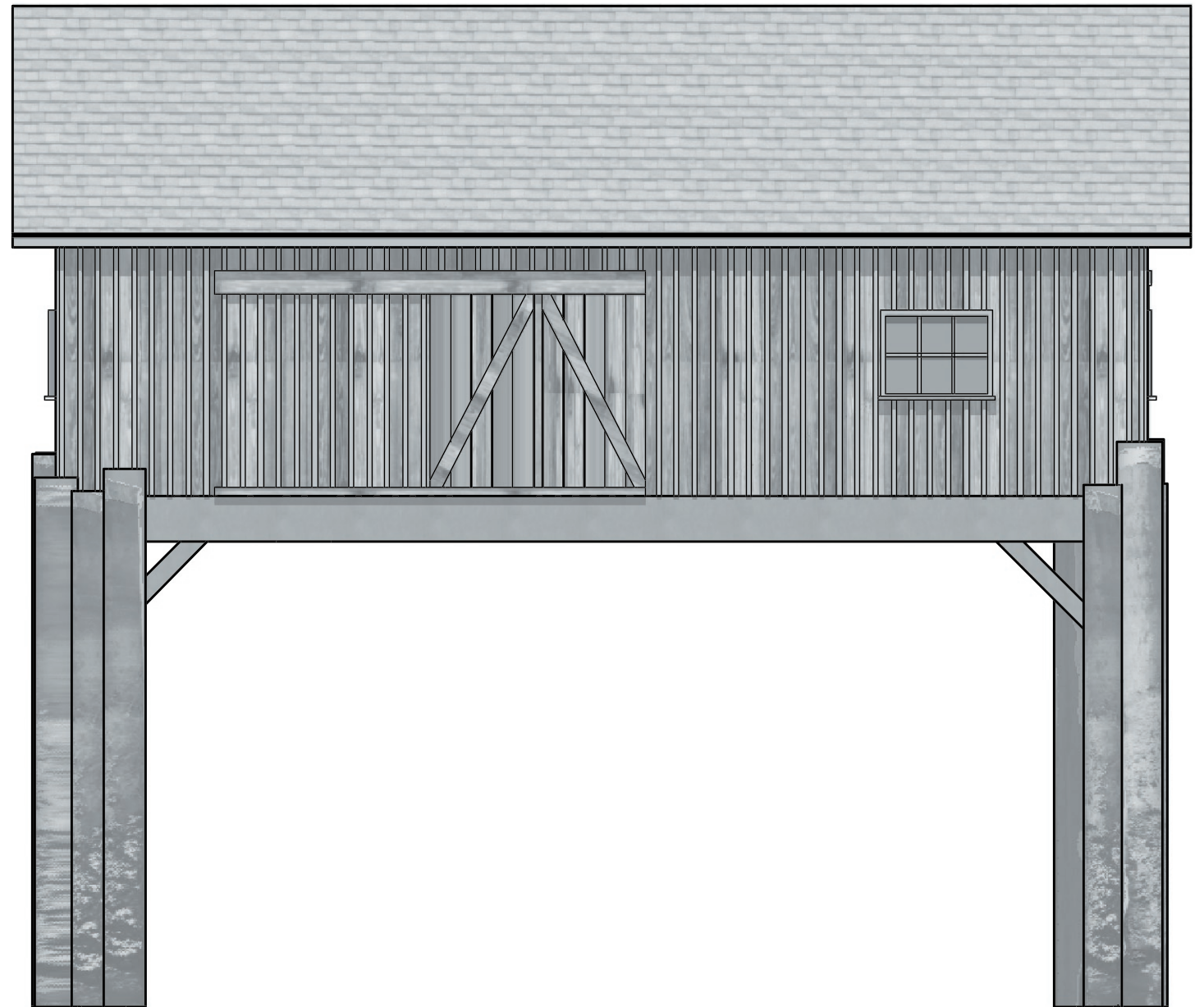
elevation north east



elevation south east



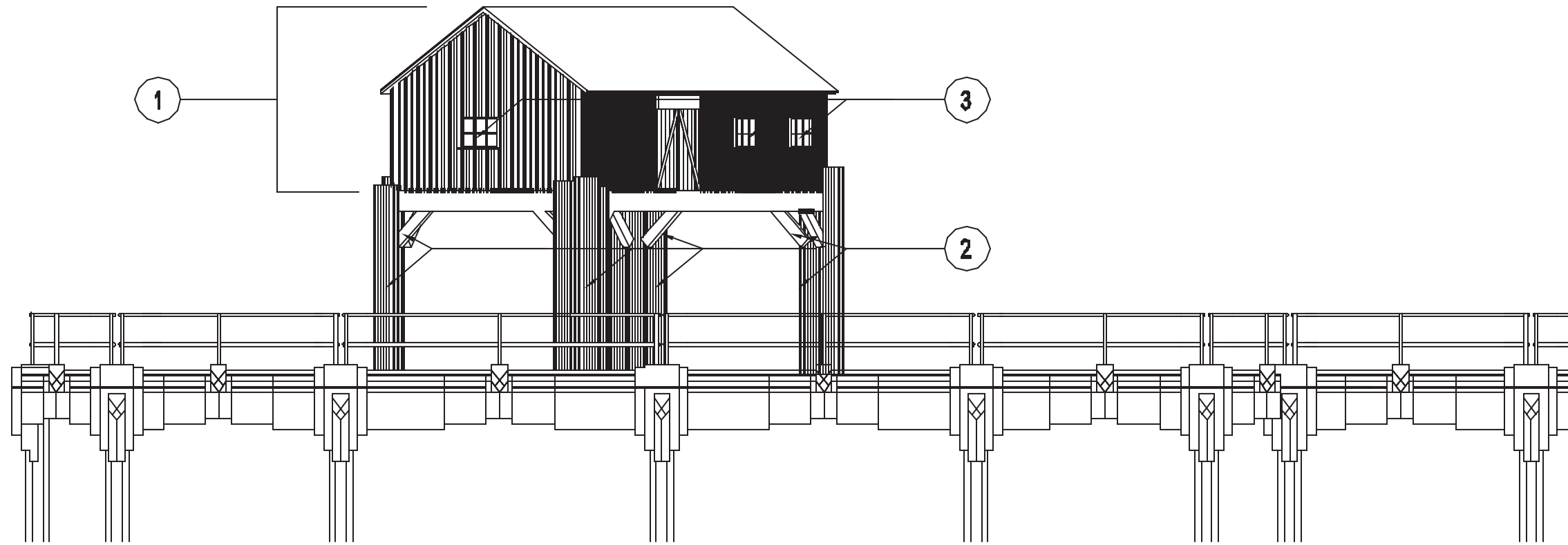
elevation south west



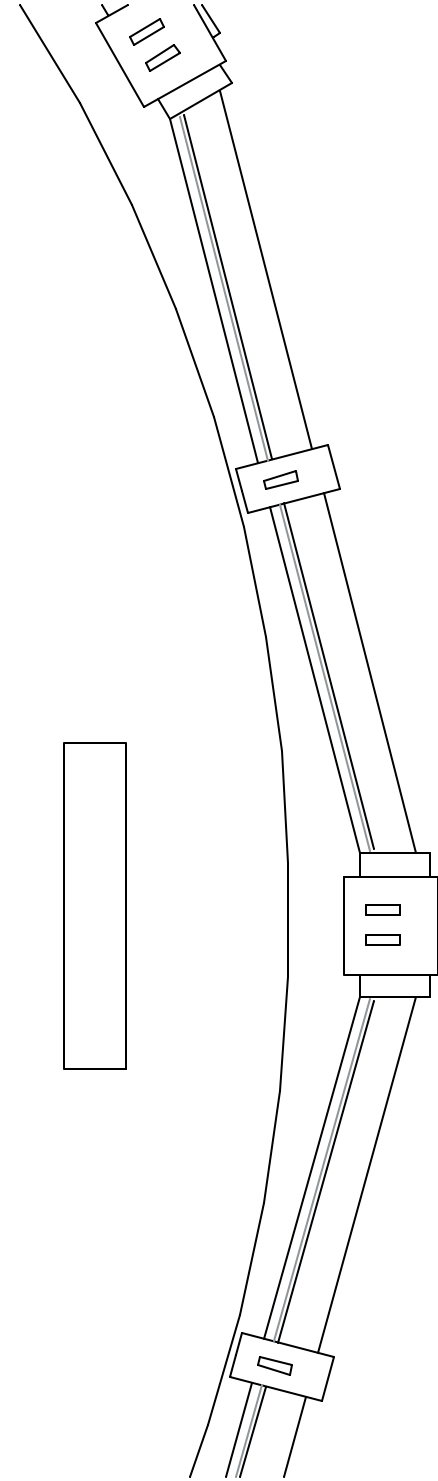
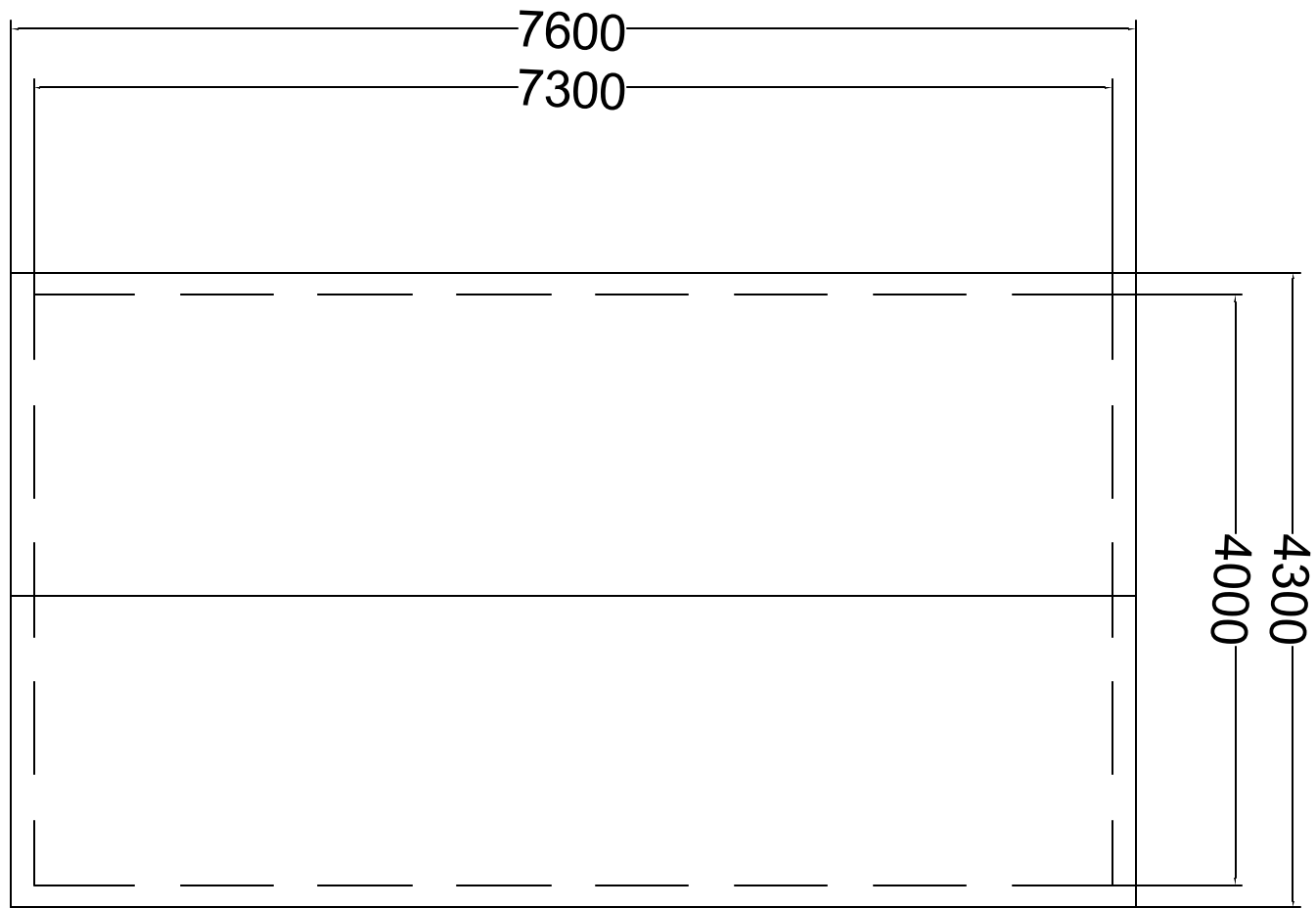
## material data

Legend

- ① Cast aluminium with protective coating
- ② Precast concrete on aluminium columns
- ③ Fresnel lenses glass windows



dimensions plan





dimensions elevation

