

### **Introduction**

Water infrastructure is fundamental to the health and prosperity of modern industrial society, yet because of the discretion and reliability of these sophisticated systems it is now taken entirely for granted. This project therefore seeks to establish more direct links to water infrastructure in order to encourage a renewed awareness of the importance of water by giving form to the engineering principles behind the design, and by expressing the force and character of water itself.

The City of Nanaimo has been aware of the potential for energy recovery at the existing Number 1 Reservoir for a number of years. As part of a wider program of water treatment and distribution upgrades, the construction of the new Reservoir Number 1 will provide the opportunity to harness that energy. Due to the elevation difference between the South Fork Water Treatment Plant and the distribution system, water entering the reservoir has significant excess hydraulic pressure. The engineering concept takes advantage of this energy and the installed turbine capacity will be up to 360 kW. The energy recovery building (the subject of this application) is to be built to house the energy recovery equipment to produce this energy.

### **Site**

Discussion to be developed based on City of Nanaimo Staff input.

### **Zoning**

The use is permitted in the PRC-1 zone. Discussion to be developed based on City of Nanaimo Staff input.

# Matthew Woodruff Architecture Inc.

## Exterior Design

The dominant, asymmetrical roof form of the project has thus been designed to represent this journey, and is expressed as a continuous reflective sheet of metal roof. The height of the roof adjacent to the new reservoir on Nanaimo Lakes Road, is intended to mediate between the substantial scale of the adjacent reservoir and the more delicate scale of the surrounding forest. The idea of expressing water is also explored in other ways. Two types of dark brick, one with a matte and the other with a glossy surface, are a reference to the varied colour and reflective qualities of natural water bodies, and the custom security screen facing Nanaimo Lakes Road is designed with a pattern reminiscent of raindrops.



### View To The South From Nanaimo Lakes Road

Please note that this is a conceptual image produced during preliminary design and is included for information only. The scheme has since been developed, please refer to the following development permit application drawings, dated 19th of June 2012, for current information: A0.0, A1.0, A2.1 and A2.2.

Matthew Woodruff  
Architecture  
Inc.

**Interior Design**

The building interior, which is hidden from public view, is straightforward, as suited to its industrial character. The large roof structure however is formed by a series of articulated wooden roof trusses which allow for a south facing clerestory window which is designed to brightly illuminate the workspace below. This design thus achieves two sustainable design goals. Firstly to reduce energy consumption by effectively utilizing daylight, and secondly to demonstrate that wood, a made in BC product with low embodied energy, is a viable material for industrial facilities when used properly.

**Summary**

In summary, this project seeks to celebrate innovative infrastructure engineering, to re-establish a connection to water, our most precious resource, and to utilize sustainable design strategies to influence the form and character of the building.