

# Custom Lighting Solution

Sealite provides custom lighting solution for the safe operation of the British Columbia cable ferry.

*British Columbia, Canada*



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Aids to Navigation systems



# Project Overview

## Application:

Custom marine lanterns for vessels to safely operate around the cable ferry in a narrow channel

## Product:

SL-300-1.5 degree, two tier, custom red/green marine lantern

## Owner:

BC Ferries

## Location:

British Columbia, Canada



**Sealite's custom built two-tiered SL-300 red and green marine lanterns mark the operational status of the new cable ferry in the Baynes Sound Channel.**

## Background

BC Ferries is one of the largest ferry operators in the world, serving more than 20 million passengers annually. With a fleet of 35 vessels, it transports goods and services around Vancouver's 47 ports and coastal communities. For positive environmental and economic impact to operations, BC Ferries planned an upgrade to their traditional ferry service on the coast of British Columbia.

A new cable ferry called the Baynes Sound Connector was to replace the traditional ro-ro (roll on/roll off) ferry between Vancouver Island and Denman Island (Baynes Sound Channel), making it one of the longest cable ferry's in the world at approximately 1900 meters (1.2 miles).

## The Challenge

Transit navigation lights already existed at both the ferry terminals at either end of the Baynes Sound Channel, but they had insufficient range for the needs of vessels in the area. The range was especially a problem during the daytime when visibility can be challenging. The lights also needed

to be controlled within the existing ferry operating system.

The ferry terminals each required an automatic lighting solution that will provide both green and red illumination, a minimum daytime visibility of approximately 2.5 nautical miles and a night time visibility of 3 nautical miles, to effectively mark the ferry's operational status.

New transit lights were required to remain red if the ferry was in transit then change to green if the ferry was in its berth. This would notify vessels when it was safe to travel through the ferry lane and cross the submerged cables. Each light had to have both a red and green lantern for dual purpose functionality.

Additionally, springtime is particularly important or safe navigation marking in the Baynes Sound Channel, since local herring seiners and packers gather in the area during the spring spawn. Fishing vessel traffic vastly increases, necessitating accurate reliable and automatic marking of ferry operations in the narrow Baynes Sounds Channel.

“ Sealite was able to provide the customer with a customized lighting solution, tailored to their specific application. The customized product, with its significant day and nighttime range, allowed the customer to provide an optimal navigation solution for their own ferry and that of the vessels operating around the ferry cable infrastructure.

*Rowan Plaxton,  
Business Development Manager -  
Marine, Canada*







## The Solution

Sealite's SL-300 1.5 degree two-tier LED marine lanterns were customized to the specific needs of the cable ferry operations with one tier being red and one tier green. With two SL-300 lanterns mounted at each of the terminals, brilliant green and red light indicate the ferry's operational status to passing vessels, even in the most brilliant sunlight.

The Sealite SL-300 LED lanterns far surpassed the day and nighttime visibility requirements and were easily wired into the ferry terminals' existing control system. The lanterns internal photo cell provided automatic intensity adjustment, switching between higher day and lower night intensities for optimal visibility to passing vessels.

Switching between red and green colours is automatic via the two-tiered lantern, indicating a safe passage of the Baynes Sounds Channel for area vessels, without input or planned configuration.

When both lanterns are green, the cable ferry is docked; the lanterns serve to inform passing boaters

that conditions are safe to cross the channel, over the ferry's cables. When the lanterns are both red, the cable ferry is en route to the opposite terminal, and the cables on which it operates may not be completely submerged, indicating potentially dangerous crossing conditions exist for passing commercial, recreational and fishing vessels.

The customer is completely satisfied with the performance, range, and operation of the lights during both day and nighttime. The SL-300 custom lanterns work seamlessly with the existing control system and are performing exactly as they were designed, ensuring the safety of passenger, commercial, and fishing vessels and everyone on the water near or around the newly installed ferry cables.

## Product Benefits:

- User adjustable intensity settings
- Low profile for maximum wind load conditions
- Internal or external photocell options
- Users configurable day/night lux levels
- Advanced remote monitoring features
- Internal data-logging for long term retention of key operational parameters & alarm condition
- GPS Synchronization for uniform flash pattern characteristics



All Sealite products are manufactured to exacting standards under strict quality control procedures. Sealite's commitment to research and development, investing in modern equipment and advanced manufacturing procedures has made us an industry leader in solar marine lighting.

By choosing Sealite you can rest assured you have chosen the very best.

**Experienced & Trained Personnel**

**Worldwide Distribution Team**

**Agile Manufacturing**

**Product Innovation**

**Precision Construction**

**Total Quality Management**

**ISO9001:2008**

**Rapid Turnaround**



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