



## 2015 AWARDS FOR ENGINEERING EXCELLENCE

### Award of Merit

### Williams Road Drainage Pump Station Upgrade



#### Consultant

Aplin & Martin Consultants Ltd.

#### Owner/Client

City of Richmond

#### Category

Municipal & Civil Infrastructure

For more information, please contact:

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The City of Richmond engaged Aplin & Martin as Lead Consultant, heading up a multidisciplinary team of specialist consultants, for the design of the Williams Road Drainage Pump Station upgrades. Aplin & Martin worked with the project team to develop cost-effective engineering solutions to meet the City's objectives.

- Upgrade the pump station to replace old equipment and double the pumping capacity;
- Meet the City's directive for waterfront beautification;
- Integrate the project into the City Parks Trail Strategy and public interpretive program;
- Incorporate public art into the project;
- Raise the dike in the vicinity of the pump station to reflect projected rising sea levels;
- Provide for mobile/onsite standby power;
- Protecting and preserving the existing ecosystems; and
- Maintaining and enhancing the existing views of the ocean and access to the dike from Williams Road.

The dike was raised, with the pump station building built into the dike to maintain views of Sturgeon Banks from Williams Road. Waterproofing the control building was achieved by installing watertight doors to seal any openings below the flood elevation on the mainland side. Propeller pumps were installed as an efficient way to double the pumping capacity.

Taking advantage of opportunities involving synergies not normally available on municipal infrastructure upgrade projects, this area was transformed into an outstanding architectural feature, complementing its surrounds, enhancing public amenity and protecting the sensitive ecosystems.

All design and construction work was completed on schedule with final costs of \$2.9 million coming in slightly under budget.