

**PROPOSED BOAT REPAIR FACILITY
ENVIRONMENTAL ASSESSMENT REGISTRATION**

SUBMITTED TO:

**ENVIRONMENTAL ASSESSMENT DIVISION
DEPARTMENT OF ENVIRONMENT
GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
4th FLOOR, WEST BLOCK CONFEDERATION BUILDING
P.O. BOX 8700
ST. JOHN'S, NEWFOUNDLAND
A1B 4J6**

SUBMITTED BY:

**DAWE'S WELDING & SONS LTD.
P.O. BOX 569
MARINE SERVICE CENTRE, WATER STREET
HARBOUR GRACE, NEWFOUNDLAND
A0A 2M0**

December 4, 2002

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1.0 INTRODUCTION

Dawe's Welding & Sons Ltd. is proposing to establish a boat repair facility for fibreglassing, painting and sandblasting vessels. This new building will be located at the site of the company's current operations at the Marine Service Centre at Harbour Grace, NL.

1.1 Proponent

- i) Name of Corporate Body: Dawe's Welding & Sons Ltd.

- ii) Address: P.O. Box 569
Marine Service Centre, Water Street
Harbour Grace, Newfoundland
A0A 2M0

- iii) Chief Executive Officer (or Representative):
 - Name: Gus Dawe
 - Official Title: President

- iv) Principal contact person for the purposes of environmental assessment:
 - Name: Wayne Reid
 - Official Title: Operations Manager
 - Telephone Number: (709) 596-5186
 - Facsimile: (709) 596-8106

2.0 THE UNDERTAKING

2.1 Nature of the Undertaking

The proposed undertaking will involve the construction and operation of a new building for fibreglassing, painting and sandblasting marine vessels. This facility will be located at the site of Dawe's Welding & Sons Ltd.'s current operations at Harbour Grace, NL.

2.2 Purpose/Rationale/Need for Undertaking

Dawe's Welding & Sons Ltd. is a family-owned and operated business which was established in 1978 in Bareneed, Newfoundland to provide welding and metalworking services to the fishing industry. In 1999, the firm expanded its operations to manage the Marine Service Centre at Harbour Grace, and currently provides services ranging from vessel haul-out and storage to routine and major repairs on vessels based in Newfoundland and Labrador, the Maritime Provinces and other countries. The company currently employs approximately 35 people on a year-round basis, with this number rising to 50 workers during peak repair periods.

A considerable portion of the company's current operations is based on the fibreglassing of vessels. Recent years have seen an increasing requirement for this service, particularly for older, wooden fishing boats. Changes in Newfoundland and Labrador's fishery over the past decade have resulted in many fishers modernizing and adapting their boats to take part in the lucrative crab and shrimp fisheries. Advances in fibreglassing technology and techniques have resulted in stronger and more durable hulls that are easier to manage and clean, resulting in lower repair and maintenance costs for vessel owners. In addition to wooden boats, the company has also attracted new business from yacht owners in the United States requiring refit and hull repair work.

At present, fibreglass work on larger vessels is undertaken in two temporary structures located adjacent to the Marine Service Centre. These existing buildings are old and beyond repair, and were intended to be used on a temporary basis only, until a more permanent facility could be constructed. Current environmental and health and safety regulations pertaining to such operations require that the company either discontinue its fibreglassing activities, or construct a new building which meets these standards and regulations.

The proposed undertaking will therefore allow the company to continue and further expand its fibreglassing, painting and sandblasting services, in accordance with applicable environmental, health and safety regulations and standards.

3.0 DESCRIPTION OF THE UNDERTAKING

3.1 Location

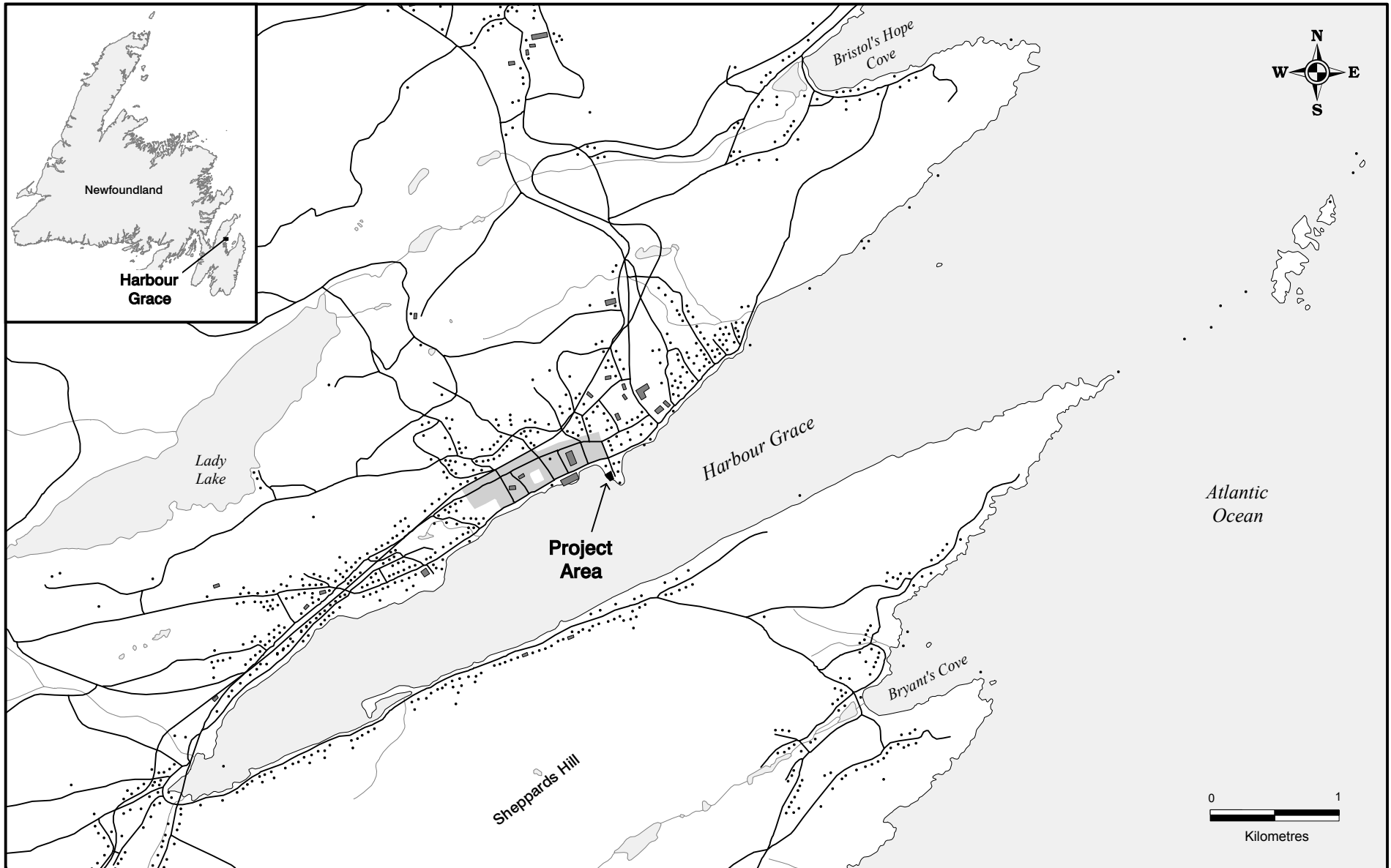
Harbour Grace is located on the northeast side of the Island of Newfoundland's Avalon Peninsula, in Conception Bay. The project area is situated on the north-central side of the harbour (Figure 3.1), on a small point of land known as Point of Beach.

Daiwa's Welding & Sons Ltd.'s current operations are based at the existing Marine Service Centre on Beach Hill Road (Figure 3.2). The existing facilities are situated on two hectares of waterfront property, and include: a 5,600 square foot industrial fabrication building; a fenced, paved lot which is used for vessel storage and haul-out; a double finger pier; and a recently acquired 300-ton crane which is used to lift vessels out of the water. Fibreglassing work on larger vessels is currently undertaken in two temporary structures adjacent to the property. The proposed boat repair facility will be located on the south side of the property (Figure 3.2).

The project area falls within the Town of Harbour Grace's municipal planning area. The project site, and the entire Point of Beach area, is currently designated as "General Industrial" (Town of Harbour Grace 1995).

3.2 Physical Features

The proposed undertaking will involve the construction and operation of a facility for fibreglassing, painting and sandblasting vessels. The building will be approximately 160 feet long, 118 feet wide and 55 feet high. It will have a concrete foundation and steel frame, with the wall covering comprised of 24 gauge pre-painted galvalume steel cladding, insulated with R20 (6 inch) batt attached to reinforced vinyl. The building's roof will be constructed of 24 gauge unpainted galvalume roof panel. The facility will include two large doors (50 feet wide by 54 feet high) to enable easy movement of vessels in and out of the building, as well as four standard doors and approximately 45 windows comprised of clear fibreglass panel. The building will be airtight, and will include a ventilation system with filtration equipment to remove fibreglass particles and other odorous substances from the air (see Section 3.5.2). The facility will be connected to the Marine Service Centre's existing water and sewage systems. Electricity will also be supplied through the existing connection. No road construction or upgrading will be required.



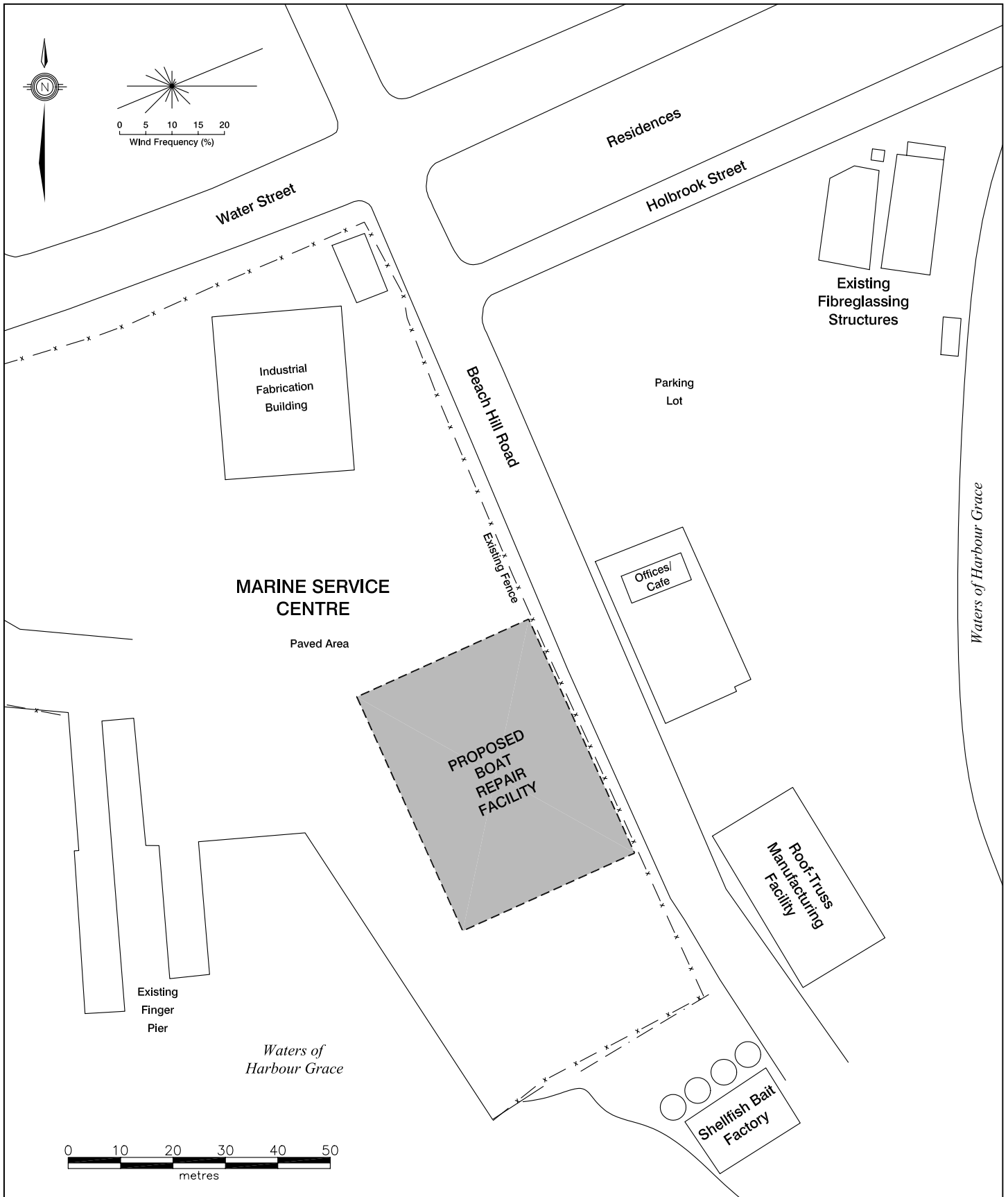
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**Jacques Whitford
Environment Limited**

Environmental Scientists
Consulting Engineers

**FIGURE 3.1
PROJECT LOCATION**



**Jacques Whitford
Environment Limited**

Environmental Scientists
Consulting Engineers

Figure 3.2
PROJECT SITE AND
ADJACENT LAND USES

3.3 Existing Environment

The following sections provide a brief overview of the project area, including its biophysical and socioeconomic environments.

3.3.1 Biophysical Environment

Harbour Grace is located on the northeast side of the Island of Newfoundland's Avalon Peninsula, in Conception Bay. The harbour is approximately 9 km long, ranges from 400 m to 2,000 m in width, and extends in a southwest direction. Harbour Grace is essentially ice-free year-round. The proposed project site is located on the north-central side of the harbour (Figure 3.1).

The project area is located within the *South and Southeast Coasts and Immediate Hinterlands* climatic zone, as defined by Banfield (1981). The area's climate exhibits a strong maritime influence, with relatively mild winters and cool summers. Canadian climate normals data for the period 1971-2000 for nearby Heart's Content indicate that daily mean temperatures range from -4.8°C in February to 16.2°C in August. The total annual precipitation is typically approximately 1,168 mm, with 1,002 mm of rain and an annual snowfall of about 166 cm (Environment Canada n.d.). The available climate normals data for the region do not include wind information. Wind direction data collected in the general area over 2001 indicate that winds are predominantly from the east and northeast (approximately 36 percent) and from the west and southwest (approximately 27 percent) (CHI, unpublished information) (see Figure 3.2).

The proposed facility will be located approximately 15-20 m from the edge of the harbour's waters. There are no freshwater ponds or streams within or immediately adjacent to the proposed project site. There is little or no natural vegetation in the area, as it has been previously developed and is the site of on-going industrial activity. The project site itself is currently paved.

3.3.2 Socioeconomic Environment

The Town of Harbour Grace is located along Route 70 (Conception Bay Highway), approximately 33 km from the Trans Canada Highway. Harbour Grace had a population of approximately 3,380 persons in 2001 (Statistics Canada 2002). Recent years have seen a steady decline in the community's population, with the number of residents decreasing by nearly 15 percent from 1991 to 2001 (Statistics Canada 1998; 2002).

In 1996 the community had a total labour force of 1,450 persons, of which 130 (9.0 percent) were employed in primary industries (such as fishing and farming), 295 (20.3 percent) were involved in manufacturing and construction and 1,025 (70.7 percent) were employed in the service industry. During that year Harbour Grace had an overall labour force participation rate of 53.2 percent, and an

unemployment rate of 31.5 percent (Statistics Canada 1998). There were approximately 90 businesses operating in the community in 2001 (Town of Harbour Grace n.d.).

The project area falls within the Town of Harbour Grace’s municipal planning area. The project site, and the entire Point of Beach area, is currently designated as “General Industrial” (Town of Harbour Grace 1995). There are no residences in the immediate project area, although there are houses along nearby Water Street, and on Holbrook Street in the vicinity of the buildings currently used for fibreglassing boats. The closest building to the project site is approximately 20 m from the proposed facility. There is an office building / café on Beach Hill Road, directly across from the Marine Service Centre, as well as a roof truss manufacturing plant. Quality Bait Services of Canada Inc. operates a shellfish bait factory to the immediate south of the proposed facility (Figure 3.2). A photograph of the general area is provided in Figure 3.3.

Figure 3.3 Ariel View of the General Area



Proposed Project Site

3.4 Construction

3.4.1 Project Activities

Subsequent to release from the environmental assessment process, and the receipt of all other required approvals and permits, construction activity is scheduled to commence in early 2003.

As the project site has been previously developed, there will not be a requirement for site clearing activities. Routine construction methods will be used for building construction, which will commence with the installation of the concrete foundation, followed by the supply and erection of the structural steel, placement of the wall cladding, roof, and insulation, and the installation of the associated equipment and services (e.g., electrical, water and sewer, ventilation and filtration system, etc.). It is anticipated that the construction period will be approximately 30 days.

Once the facility is completed and operational, the two existing wooden structures which are currently used for the company's fibreglassing activities (Figure 3.2) will be disassembled and removed.

3.4.2 Potential Sources of Pollution

All waste materials will be disposed of in an environmentally acceptable manner. Non-hazardous waste produced during construction and demolition activities will be disposed of at an approved landfill site. Waste materials will be reused / recycled where possible. Care will be taken to ensure that waste materials do not enter the harbour waters. Any hazardous wastes will be stored in sealed, labelled containers and disposed of according to applicable regulations. There will therefore be no interaction between construction-related waste materials and the environment.

Standard environmental procedures for the use, storage, transport and disposal of fuel and any other hazardous materials will apply to the proposed project, and these activities will be conducted in accordance with all applicable regulations and guidelines. Vehicles and equipment will be inspected regularly, and maintained in good repair. Air emissions from equipment and vehicles will also conform with applicable regulations and guidelines. Tools and equipment will not be washed in any body of water, and wash water will not be discharged into the harbour.

In the unlikely event of an accidental spill of fuel or other hazardous material, standard response and reporting procedures would be implemented.

3.4.3 Potential Resource Conflicts

As the project site has previously been developed, there will be no effects to vegetation or terrestrial wildlife as a result of project construction. The current use of the immediate project site by marine birds is limited, and it is likely that any avifauna using the general area have somewhat habituated to the noise and disturbance associated with on-going industrial activity in the region. No adverse effects on marine birds are therefore anticipated.

The proposed facility will be located approximately 15-20 m from the harbour waters, and there is no requirement for any in-water work. The project will therefore not affect marine water quality or fish and fish habitat. There will be no interaction with the freshwater environment, as there are no waterbodies or streams located on or immediately adjacent to the project site.

Given the developed nature of the site and relatively small project footprint, it is very unlikely that the project would result in the disturbance or destruction of historic resources. Standard precautionary and reporting procedures will, however, be implemented during project construction.

Construction of the facility will occur entirely within the existing Marine Service Centre at Harbour Grace. No noise effects or interference with local residents or businesses is therefore anticipated. Similarly, no effects are likely as a result of the demolition and removal of the existing wooden buildings, although it may be necessary to restrict access to this immediate area for safety reasons while this is occurring. In addition, as no in-water construction activity will occur, the project will not interfere with navigation or fishing activity in Harbour Grace.

Potential employment and business opportunities which may be associated with the construction of the proposed facility are discussed in Section 3.7.

The proponent and/or its contractors will obtain all required provincial, federal and/or municipal authorizations prior to the start of construction (Section 4.0).

3.5 Operation

3.5.1 Operational Activities

The facility will be used for fibreglassing, painting and sandblasting marine vessels. The materials and methods involved will be the same as those which are currently used by the proponent at the site. Fibreglassing is a relatively simple process, in which mats of fibreglass cloth are mixed with resin and applied to the hull of a vessel. Once dry, this is followed by the application of a gel coat. Fibreglass material and gel coat are rolled on. Vessel painting is also done primarily with brushes and rollers,

although some spray painting may also be conducted at the facility. Some sandblasting work will also be carried out at the facility as needed.

The duration of the fibreglassing process and the volume of materials used in such operations varies considerably, based on the number and size of the boats involved and the extent of the required repairs. It is estimated that approximately 15-20 vessels (of various sizes) will be repaired annually at the facility once it is operational. Hours of operation will depend on the volume of business; at present it is 8 a.m. to 5 p.m. Monday to Friday, with some work conducted on Saturdays. Work will be conducted at the facility year-round.

Raw materials such as resins, fibreglass matting, paint, etc. will be stored within the proposed facility. There will be some limited requirements for the use of chemicals (e.g. acetone) for cleaning rollers and brushes, etc. Any required use, storage and disposal of such materials will be done in accordance with applicable guidelines and regulations.

3.5.2 Potential Sources of Pollution and Resource Conflicts

Once operational, all fibreglassing activity will be conducted inside the new building. As noted previously, the building will be airtight, and will contain an air ventilation and filtration system to remove fibreglass particles and other odorous substances from the air.

The system will include eight to ten Dust-Hog[®] units, each with a capacity of approximately 3,000 cubic feet per minute (CFM), installed inside the building at approximately 10-12 feet above floor level. These units will collect contaminated air inside the building, which will then pass through v-bank filter units (with activated charcoal) to remove any particulate matter (e.g., styrene, dust particles, etc.), before exiting from the opposite side of the unit. In addition, portable high-vacuum source-capture units will be used during operational activities which may introduce particulate matter into the air (e.g., grinding). Exhaust fans (two or more, with a total capacity of approximately 10,000 CFM) will collect air from inside the building, which will pass through activated charcoal filters before exiting on the west side of the building. The building will also include a jet air bag system to bring in fresh air from the outside (approximately 8-10 air changes per hour).

This system will be operated at all times during which styrene or other odorous substances may be released, and will be inspected and maintained on a regular basis. All material collected through the ventilation and filtration systems will be stored in open canisters within the facility and allowed to cure for at least eight hours before being disposed of at an approved site.

Dawe's Welding & Sons Ltd. is committed to working with the Pollution Prevention Division (Department of Environment), the Workplace Health and Safety Branch (Department of Labour) and

other applicable agencies in the design and operation of the facility and its associated systems and equipment, to ensure compliance with all relevant environmental, health and safety regulations.

All personnel working inside of the facility will wear appropriate safety equipment (e.g., masks, safety glasses). Dawe's Welding & Sons Ltd. has also recently acquired air monitoring equipment, and will conduct regular air quality monitoring at the facility to ensure compliance with applicable regulations and standards.

There is very little waste associated with fibreglassing activities (estimated to be less than 0.05 percent of raw materials). Any waste materials generated during project operation will, however, be disposed of in an environmentally acceptable manner. Non-hazardous waste (e.g., packaging, etc.) will be stored in commercial dumpsters and disposed of at an approved landfill site. Waste materials will be reused / recycled where possible. Any hazardous wastes will be stored in sealed, labelled containers and disposed of according to applicable regulations. There will therefore be no interaction between any waste materials and the environment.

There will be no disturbance of or discharges to the marine, aquatic or terrestrial environments during project operation.

The new facility will therefore allow the company to conduct its operations in accordance with applicable environmental, health and safety regulations and standards. This will help protect the health and safety of its workers and the general public, as well as reducing the potential for any adverse effects to nearby buildings, vehicles and the natural environment.

3.6 Decommissioning

The facility will be subject to periodic maintenance, as required, and it is assumed that the proposed project would be operated on a permanent basis. As such, formal plans for decommissioning have not been developed. However, should decommissioning be required for all or a portion of the facility, a detailed decommissioning plan would be developed and implemented in accordance with acceptable standards of the day, and in consultation with relevant regulatory agencies.

3.7 Employment and Business

The project's construction phase, although of relatively short-term duration, will generate direct employment, as well as potential business opportunities in the supply of required goods and services (e.g., construction materials, equipment rentals, fuel supply, etc.). Project construction will be carried out on a contractual basis, with workers hired at the discretion of the contractor and in accordance with its own hiring practices and policies. Dawe's Welding & Sons Ltd. supports equity in its hiring and contracting practices, and is committed to maximizing its use of the local workforce and companies.

Once operational, the proposed facility will allow the company to continue its current operations, which currently employs approximately 35 people on a year-round basis, with this number rising to 50 workers during peak repair periods. Specific occupations employed at the facility include: welders, carpenters, electricians, shipwrights, millwrights, mechanics, plumbers, labourers, etc., as well as administrative staff. The facility will allow the firm to expand its fibreglassing, painting and sandblasting services, and it is expected that the number of employees will rise to over 75 once it becomes operational. Dawe's Welding & Sons Ltd. also remains committed to maximizing local benefits by obtaining its raw materials and other required goods and services from local businesses.

4.0 APPROVAL OF THE UNDERTAKING

Dawe's Welding & Sons Ltd. is committed to complying with all relevant legislation and regulations, and the conditions of regulatory approvals. Permits and authorizations which may be required in relation to the proposed project include those listed in Table 4.1.

Table 4.1 Potentially Applicable Environmental Permits and Authorizations

Authorization	Legislation/ Guidelines	Activity Requiring Compliance	Department / Agency	Comments
Release from Environmental Assessment	<i>Environmental Protection Act, Environmental Assessment Regulations</i>	Project construction and operation	Environmental Assessment Division, Department of Environment	The proposed undertaking requires registration and review before proceeding. After a public and governmental review, the Minister of Environment will decide whether the project may proceed, subject to other applicable legislation.
Certificate of Environmental Approval	<i>Environmental Protection Act</i>	Project operation	Pollution Prevention Division, Department of Environment	A Certificate of Approval may be required for industrial or processing works in the province.
Compliance Standard	<i>Environmental Protection Act, Air Pollution Control Regulations</i>	Project operation	Department of Environment	The regulations set allowable limits for air emissions. The specified limits for styrene are: <ul style="list-style-type: none"> • <i>24 Hour Air Quality Standard</i>: 400 micrograms per cubic metre of air; • <i>Concentration at Point of Impingement (1 hour average)</i>: 330 micrograms per cubic metre of air.
Compliance Standard	<i>Occupational Health and Safety Act and Regulations</i>	Project-related employment	Department of Labour	Outlines minimum requirements for workplace health and safety.
Certificate of Approval for Storing and Handling Gasoline and Associated Products Permit for Flammable and Combustible Liquid Storing and Dispensing	<i>Environmental Protection Act, Storage and Handling of Gasoline and Associated Products Regulations</i> <i>Fire Prevention Act, Fire Prevention Flammable and Combustible Liquids Regulations</i>	Storage and handling flammable liquids	Department of Government Services and Lands Department of Municipal and Provincial Affairs, Office of the Fire Commissioner	

Authorization	Legislation/ Guidelines	Activity Requiring Compliance	Department / Agency	Comments
Compliance Standards	<i>National Fire Code National Building Code</i>	Building construction	Department of Government Services and Lands	
Release from Environmental Assessment	<i>Canadian Environmental Assessment Act</i>	Project construction and operation	Federal Responsible Authority(s) (e.g., funding agency).	The project may receive federal funding.
Compliance Standard / Building Permit	<i>Urban and Rural Planning Act, Municipal Plan and Development Regulations</i>	Project construction and operation	Harbour Grace Town Council	Other municipal permits and authorizations may also be required.

Following release from the environmental assessment process, the proponent and/or its contractors will obtain all applicable authorizations required for the project.

5.0 PROJECT SCHEDULE AND FUNDING

5.1 Schedule

Pending project release, project construction is scheduled to begin in early 2003. It is anticipated that the construction period will be approximately 30 days, with the facility being commissioned in the winter of 2003.

5.2 Funding

Dawe's Welding and Sons Ltd. is currently seeking financial assistance for the proposed project under the Business Development Program of the Atlantic Canada Opportunities Agency (ACOA).

Date

Gus Dawe
President

6.0 REFERENCES

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