

1. Project Overview

1.1. Introduction

This document is the Application Letter for the Nunavut Impact Review Board (NIRB) for the Grise Fiord Community Harbour Project (the Project).

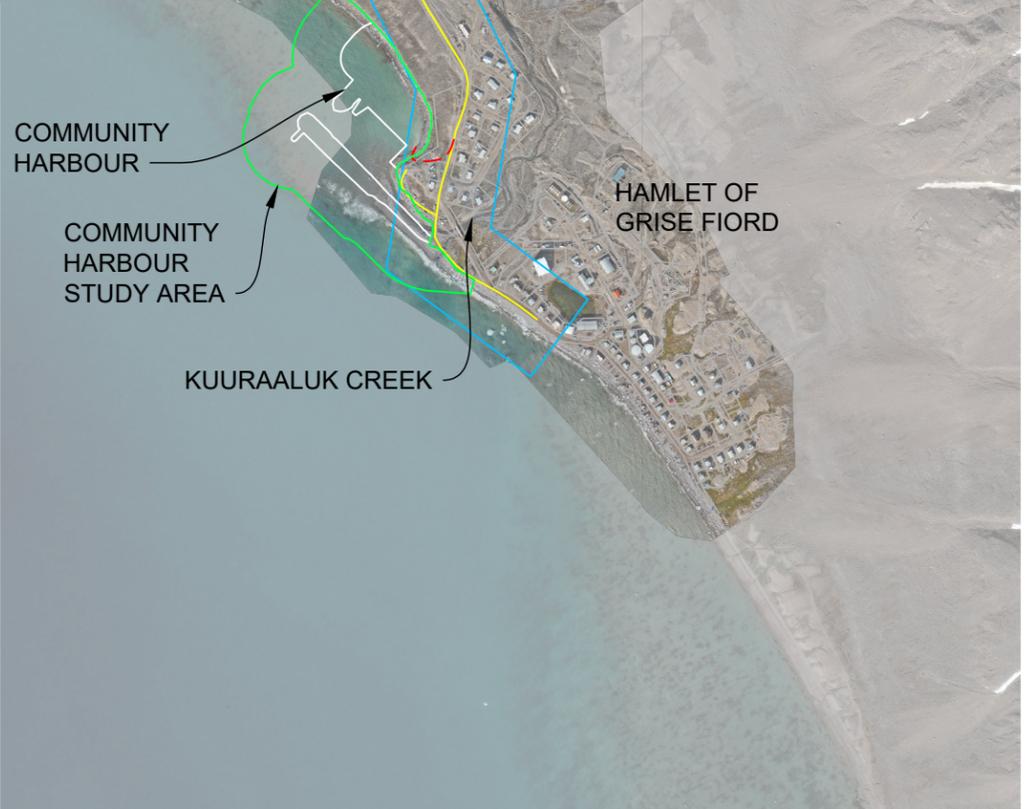
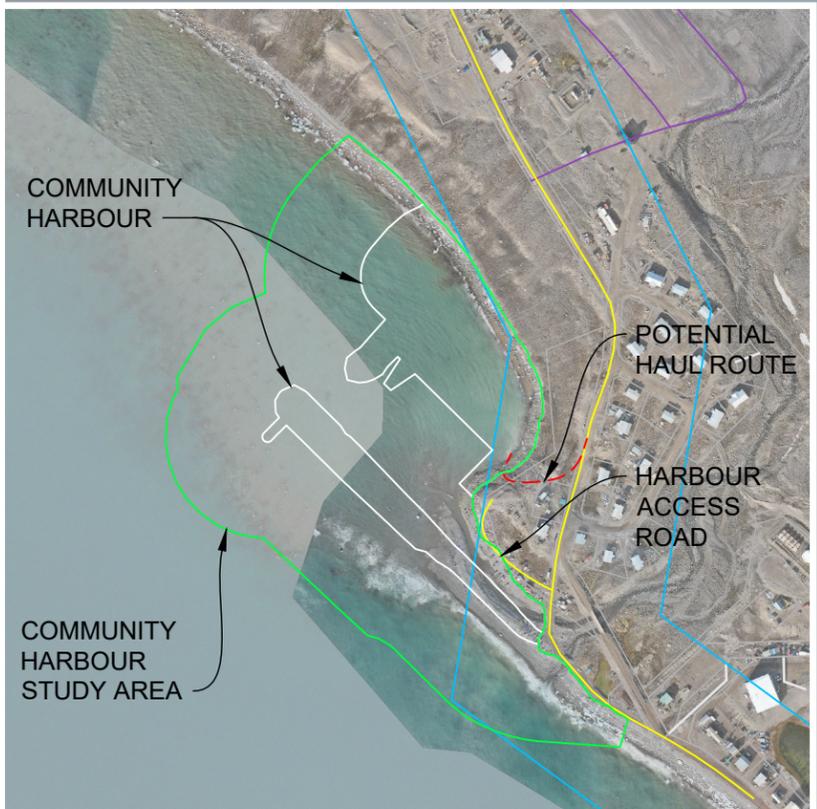
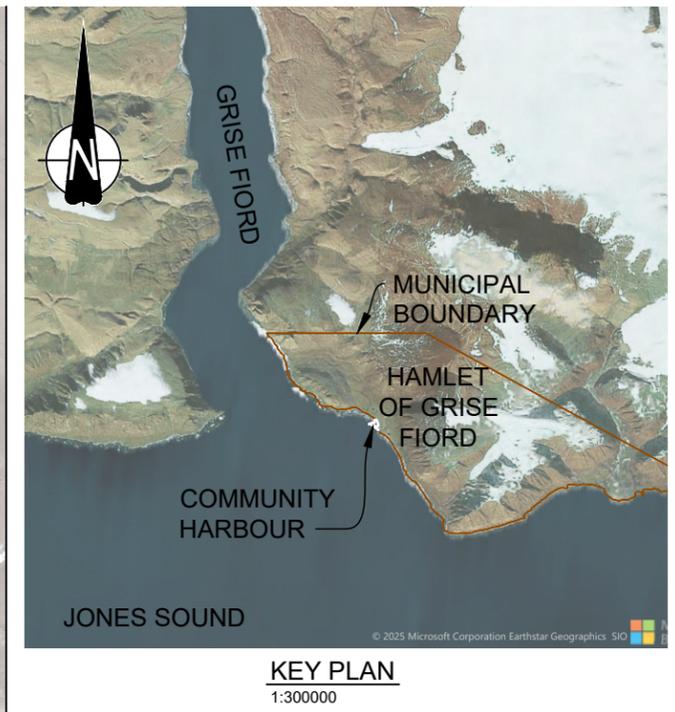
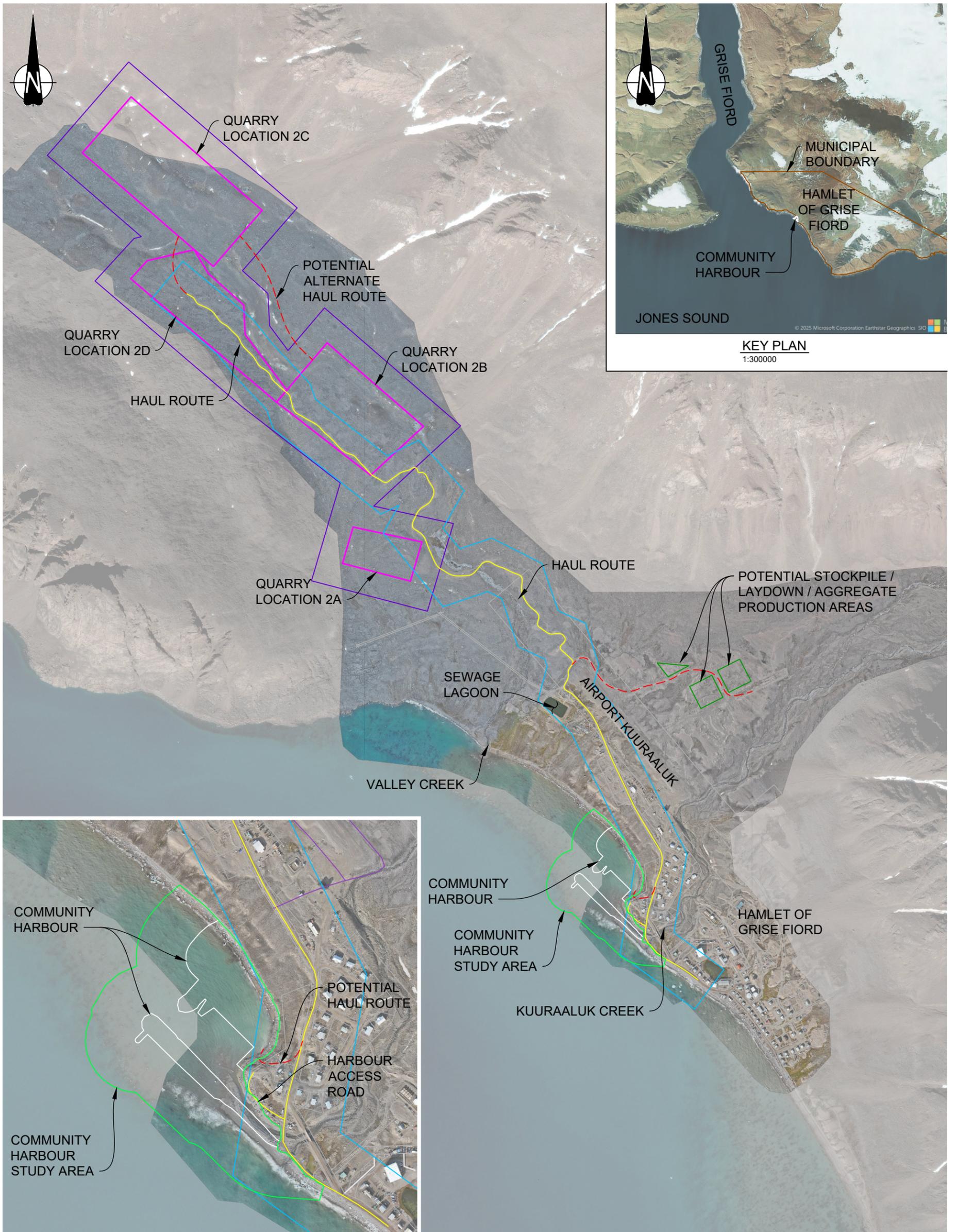
The Tallurutiup Imanga National Marine Conservation Area (TI NMCA) is an important designated area located in the Canadian Arctic, specifically in Lancaster Sound (Tallurutiup Imanga) and its adjacent waterways. This conservation area was established to protect and preserve the unique and ecologically important marine environment for Inuit and all Canadians. Establishment of protected areas within Canada's high Arctic basin, such as the TI NMCA, is a requirement of the Inuit Impact and Benefit Agreement (IIBA). A Memorandum of Understanding (MOU) between the Qikiqtani Inuit Association (QIA), the Government of Nunavut (GN), and the Government of Canada has resulted from the creation of the TI NMCA and was signed in the summer of 2021. The purpose of this agreement is to recognize that marine infrastructure is connected to community wellbeing as well as economic and social development, and to address the marine infrastructure deficit in several communities, including Grise Fiord and Resolute Bay. A portion of the waterfront within the several communities (such as Grise Fiord) that are within the TI NMCA is excluded through Article 4 of the IIBA (IIBA, 2019) to allow for the development of marine infrastructure. This will be accomplished with funding from the Government of Canada for a Community Harbour in both Grise Fiord and Resolute Bay.

The Project is being managed by the GN, where GN-Community and Government Services (CGS) is the proponent during the construction stage, and ownership will transfer to GN – Economic Development and Transportation (EDT) during the operations stage. The two GN departments are working collaboratively on the Project and are collectively referred to as GN-CGS/EDT as the proponent for the permitting of the Grise Fiord Community Harbour. Effective April 1, 2025, GN-CGS and GN-EDT, will be merged and referred to as the Departments of Transportation and Infrastructure (GN-TIN) (GN, 2024).

Worley Canada Services Ltd., operating as Worley Consulting, has been retained by the GN-CGS/EDT to support the detailed design of a community harbour in Grise Fiord, Nunavut (Figure 1-1). Dynamic Ocean Consulting Ltd. (Dynamic Ocean) is supporting Worley Consulting on the permitting requirements for the Project. The Grise Fiord Community Harbour was a component of an earlier feasibility study, completed by Fisheries and Oceans Canada (DFO) – Small Craft Harbour (SCH) in 2019.

1.2. Project Location

The Project is located in the community of Grise Fiord, which is approximately 1,100 km north of the Arctic Circle (76° 25.001'N, 82° 54.935'W, see (Figure 1-1)). The community is located on the southern shore of Ellesmere Island in Jones Sound in the Qikiqtaaluk Region of Nunavut, and conforms with the North Baffin Regional Land Use Plan (NBRLUP) (Nunavut Planning Commission (NPC, 2000)). While Grise Fiord is within the NBRLUP, the Recommended Nunavut Land Use Plan (RNLUP) (NPC, 2023) will replace the NBRLUP once it is approved.



LEGEND

- HAUL ROAD ON EXISTING ROAD/TRACK
- - - ALTERNATE/ADDITIONAL HAUL ROUTE
- COMMUNITY STUDY AREA
- QUARRIES STUDY AREA
- EXISTING ROAD STUDY AREA
- STOCKPILE/LAYDOWN AREA
- QUARRY



Figure 1-1 GOVERNMENT OF NUNAVUT GRISE FIORD COMMUNITY HARBOUR DEVELOPMENT			
PROJECT COMPONENTS (QUARRY, HAUL ROAD, COMMUNITY HARBOUR)			
Date:	03-APR-25	Drawn by:	JLC
Edited by:	JLC	App'd by:	CM
Worley Project Number		317086-54170	
DRG No	1	REV	1
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1.3. Project Name

Grise Fiord Community Harbour Project (hereafter referred to as the Project).

1.4. Proponent and Representative Details

Contact information for the proponent and representative are provided in Table 1-1.

Table 1-1: Proponent and Contact Information

Contact Category	Details
Proponent: Government of Nunavut	
Applicant's Name	Justin McDonell Project Manager, Capital Projects
Address	PO Box 1000 Station 200 Community and Government Services Iqaluit, Nunavut X0A 0H0
Telephone / Fax	1-867-975-5114
Email	JMcDonell@gov.nu.ca
Applicant Representative: Dynamic Ocean Consulting Ltd.	
Name	Victoria Burdett-Coutts, MSc, RPBio Senior Marine Scientist and Regulatory Professional
Address	2901 Murray Street Port Moody, British Columbia V3H 1X3
Telephone / Fax	1-778-839-2372
Email	Victoria@dynamicocean.ca
Design Engineer: Worley Canada Services Ltd.	
Name	Chris Meisl Project Manager, Marine Engineering Lead
Address	Suite 200, 2930 Virtual Way Vancouver, British Columbia VM5 0A5
Telephone / Fax	1-418-730-2965
Email	Chris.Meisl@worley.com

2. Project Description

2.1. Project Scope

The scope of the Project addresses all construction components of the community harbour in Grise Fiord.

2.2. Project Purpose and Need

The Project will improve safe access to water and the functionality of boating activities, safety concerns and environmental risks associated with current boating operations, reduce congestion, and provide all tide access in the community. Small craft users, if allowed by the community, will have safer and protected access to the water, such as, hunters, fishers, outfitters, recreational users and potentially cruise ship tenders.

The new breakwaters will provide protection from winds and waves, which was a safety concern expressed during consultation with the community. The dredged harbour basin and entrance channel will provide all tide access. The new vessel launch will allow users to safely launch and retrieve small craft vessels in all tides. The Project will improve day-to-day operations and safety for users by establishing a laydown area adjacent to the shoreline. The laydown area will provide ample room for vehicle and boat trailer traffic, and parking for vehicles, small craft vessels and trailers.

Further amenities of the design include an improved shoreline (grading and levelling to create a driving surface) and better lighting (navigation lights at the harbour entrance). Vessel access to the west mouth of the creek is planned to be maintained.

2.3. Study Areas

The Project Study Area includes the footprint of the Project components plus a 100 m buffer.

2.4. Project Components

The Project components include temporary and permanent components, which are marine and terrestrial. Temporary components are terrestrial and include a quarry (borrow pits) and haul road; the borrow pits to supply rock for construction, and a haul road to transport rock from the borrow pits to the community harbour. The permanent component is the community harbour, and is primarily marine with small portions that are terrestrial (Figure 1-1 (community harbour location and components); Drawing 2-1 (general arrangement of community harbour)).

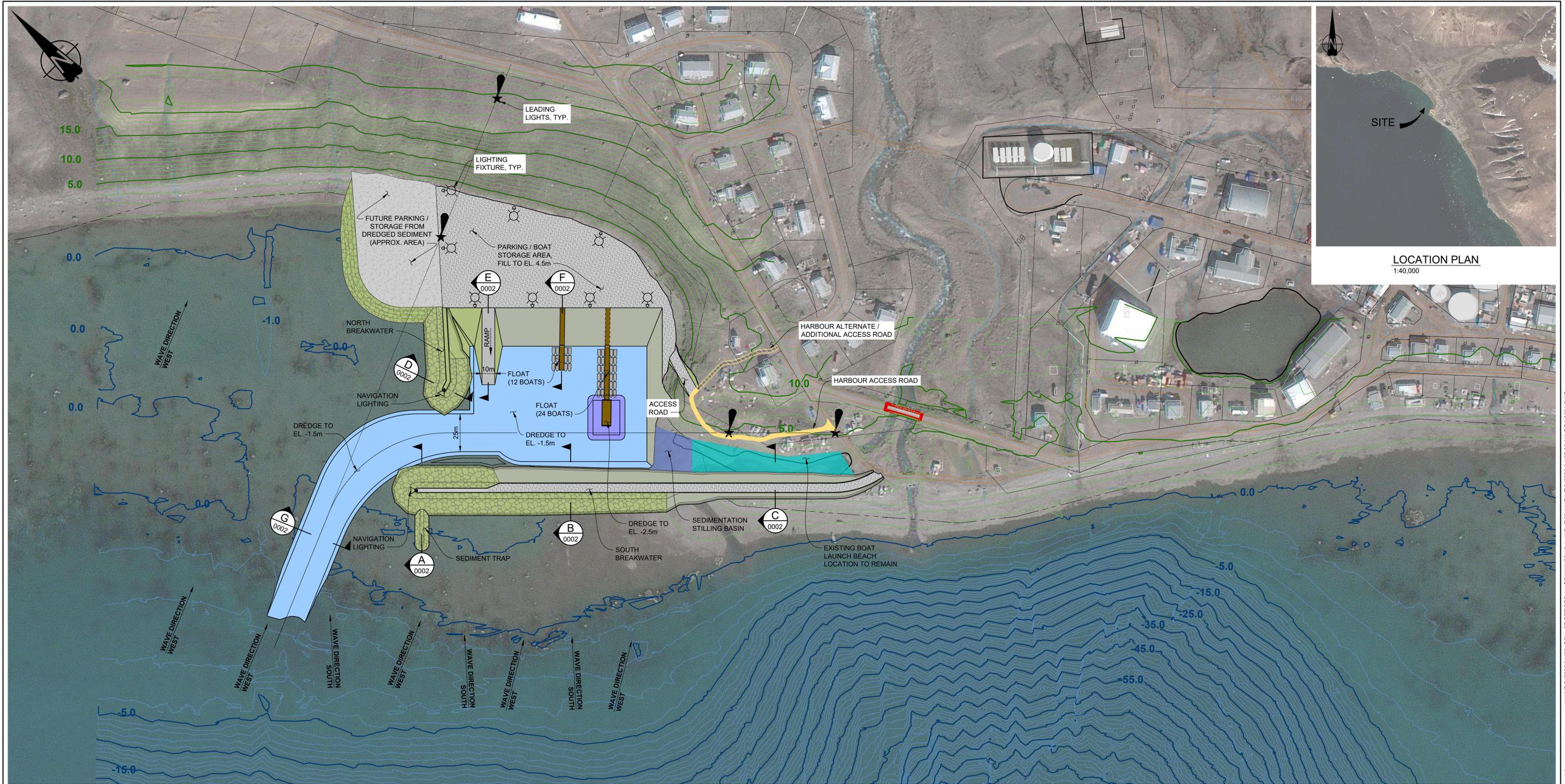
The permanent components of the Project include the construction of:

- Two new breakwaters (to create a protected harbour).
- Boat launch ramp.
- Two small craft floating docks to support mooring of small craft vessels.
- Laydown Area.
- Shoreline raised and graded to create a level driving surface.
- Navigational aids.



- Harbour lighting.

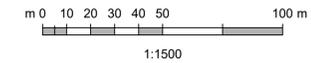
The final arrangement of the community harbour may change through the design development phase of the Project as GN-CGS/EDT plans to continue consulting with the community to refine the Project design; however, any design modifications that do occur, are not expected to change the predicted environmental effects. Temporary components to support construction includes a quarry (borrow pits) and haul road, with the borrow pits required to supply rock for construction, and a haul road to transport rock from the borrow pits to the community harbour. Project components are further described in Section 2 of the PSIR Report (Dynamic Ocean & Worley Consulting, 2025b).



PLAN
1:1500

NOTES:

1. WATER DEPTHS WITHIN THE SURVEY BOUNDARY PROVIDED BY FISHERIES AND OCEANS CANADA. SURVEY WAS PERFORMED ON SEPTEMBER 22, 2018 BY AQUATICS-ESI, PROJECT NO. 18S022002, DRAWING NO. A1, REVISION 2, DATED 19/01/07



REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	OAR	REF DRAWING No	REFERENCE DRAWING TITLE
B	28-NOV-24	ISSUED FOR REVIEW	JLC	-	CM	DH	CM	-		
A	29-JUL-24	ISSUED FOR REVIEW	JLC	-	CM	DH	CM	-		

D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)
			<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> PRELIMINARY <small>DO NOT USE FOR CONSTRUCTION</small> <small>Last Saved: Nov. 28/24 2:07pm</small> </div>
WORLEY PROJECT No			317086-54170

CUSTOMER

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worley consulting

GRISE FIOR
COMMUNITY HARBOUR
PLAN
Drawing 2-1

DRG No: 317086-54170-00-MA-DGA-0001

REV: B

2.5. Project Information

Project information requirements to support the screening by the Nunavut Impact Review Board (NIRB) are detailed in the Project Specific Information Requirement (PSIR) Report (Dynamic Ocean & Worley Consulting, 2025b), and summarized in Table 2-1.

Table 2-1: Nunavut Impact Review Board Project Information Requirements

Project Details	Summary	PSIR Report Section
Schedule	<ul style="list-style-type: none"> Construction is scheduled to begin in 2026 and will conclude in 2029, with works largely occurring in the open-water season. The Project is expected to be operational in the open-water season of 2030. 	Section 1.12, Table 1-2
Workforce and Human Resources	<ul style="list-style-type: none"> A crew of approximately 30 is anticipated to be at the Project site during construction. With construction occurring during the open-water season, there will be approximately 125 construction days per year for a total of 500 days over 4 years. 	Section 1.18, Table 1-7
Consultation	<ul style="list-style-type: none"> Consultations have been conducted since the feasibility phase of the Project and are designed to ensure that residents, hunters, fishers, and stakeholders are consulted using a variety of methods and materials. To date, seven separate community visits from 2018 to 2024 have been conducted including meetings with the Hamlet, design workshops with the HTA, and Inuit knowledge (Inuit Qaujimagatuqangit [IQ]) workshops with elders and active hunters. Additionally, open houses were conducted in May 2022 and December 2024 to provide all residents with a chance to learn about the community harbour concepts and construction plans and provide their feedback. Community notices were posted in the community, on the radio, and on Facebook 10 days prior to the open houses and again on the day of the public meetings. Presentation slides were projected and large-scale posters of the harbour layouts, quarry locations, haul routes, permitting processes, and photos depicting harbour equipment and construction activities were displayed. 	Section 3, Table 3-1, Table 3-2

Project Details	Summary		PSIR Report Section
Proposed use of Local and Inuit Knowledge (Inuit Qaujimagatugangit – IQ)	<ul style="list-style-type: none"> Traditional land use and environmental knowledge workshops and interviews with local knowledge holders will guide and complement the overall field baseline study, detailed design and construction planning for the Project. 		Section 4, Figure 4-1
Land Use and Licensing	Administrative Boundary	Qikiqtaaluk Region	Sections 1.7, 5, Table 5-1
	Planning Region	North Baffin	
	Land Use	Construction of marine infrastructure which by NPC’s descriptions would be most closely categorized as permanent structures	
	Land Ownership	Crown	
Equipment	<ul style="list-style-type: none"> Construction is expected to be completed using land-based equipment; however, the contractor may decide to support with marine-based equipment. Equipment will arrive in Grise Fiord by sealift. 		Section 1.16.1, Table 1-4
Fuel Use	<ul style="list-style-type: none"> Based on recent conversations with the GN-PPD and the Hamlet, the community’s current fuel storage capacity and/or fuel resupply schedule is likely insufficient to support the Project’s construction fuel needs. The Project is engaging with GN-PPD to confirm if the Project’s estimated fuel consumption can be met without impacting the communities fuel requirements. Initial assessments of current capacity and fuel surpluses indicate that there will likely be insufficient fuel to support the construction works. 		Sections 1.16.2, 8.3.4, Table 1-5
Chemicals and Hazardous Materials	<ul style="list-style-type: none"> Anticipated chemical or hazardous materials required for the community harbour construction have been estimated based on equipment and material types anticipated to be required by the contractor. 		Section 1.16.3, Table 1-6

Project Details	Summary	PSIR Report Section
Water Use	<ul style="list-style-type: none"> Water for construction use will be obtained from the existing water supply infrastructure in Grise Fiord. It is anticipated that water will be delivered by a local contracted water truck, or the contractor’s own water truck. If the local water supply is unable to meet the water needs of the community, the contractor will be responsible for the appropriate permitting from the Nunavut Water Board (NWB). 	Section 1.14
Waste Management	<ul style="list-style-type: none"> Wastewater management estimated volumes consider the construction sites and the construction camp. 	Section 1.15, Table 1-3
Potential Environmental and Social Impacts and implementation of mitigation measures.	<ul style="list-style-type: none"> Valued Ecosystem Component and Valued Socio-Economic Components were determined from collaboration with the community and key stakeholders, while being guided by NIRB’s Proponent Guidance document (NIRB, 2020). Assessment of the potential environmental and socio-economic effects of the Project include the anticipated impacts on VECs and VSECs of residents and community harbour users. A Construction Environmental Management Plan (CEMP) has been developed to support permitting and to confirm mitigation and monitoring measures that will be incorporated during construction to minimize negative effects to socio-economic and environmental factors (Dynamic Ocean & Worley Consulting, 2025a). The Contractor will be required to generate their own CEMP (CCEMP), which at a minimum meets the commitments made in the permitting CEMP and outline how all monitoring commitments will be met. In addition to the CEMP, the CWPs provide specific task execution methodologies and outline situational plans to confirm the forethought of construction. Detail on the CWPs can be found in Section 8.3 of the PSIR Report (Dynamic Ocean & Worley Consulting, 2025b). CWPs required for the Project prior to construction will include but may not be limited to the following: 	Section 7, Tables 7-1, 7.2

Project Details	Summary	PSIR Report Section
	<ul style="list-style-type: none"> ○ Contractor Marine Safety Plan (CMSP): Outlines how to minimize the impacts of water works. ○ Contractor Traffic Management Plan (CTMP): Outlines procedures and protocols for site access, traffic routing and management. ○ Contractor Spill Prevention and Response Plan (CSPRP): outlines measures to be followed in the event of accidental spills, and how safe fueling and fuel storage practices will be followed. ○ Contractor Quarry and Blasting Management Plan (CQBMP): Outlines manage measures necessary for aggregate production. ○ Contractor Health and Safety and Emergency Response Plan (CMSERP): Outlines a plan to protect the workers, community and environment. 	

References

- Dynamic Ocean, & Worley Consulting. (2025a). Grise Fiord Community Harbour: Construction Environmental Management Plan. Prepared for the Government of Nunavut. Doc No: PLN-WRL-07-Grise Fiord Community HRB CEMP-0001. 26 March 2025. Rev5.
- Dynamic Ocean, & Worley Consulting. (2025b). Grise Fiord Community Harbour: Project Specific Information Requirements. Prepared for Nunavut Impact Review Board. Doc No: REP-WRL-07-Grise Fiord Community HRB PSIR-0003. 26 March 2025. Rev6.
- GN. (2024). Internal Memo: Transitional Notices for Procurement Documents for the 2025 Government Reorganization. Issued 03 December. Accessed: January 2025.
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