



5 May 2017

Colm Lynch
Sandvik Mining and Construction Australia Pty Ltd
Locked Bag 6
MILTON QLD 4064

Dear Colm,

DEVELOPMENT APPROVAL PACKAGE FOR OPERATIONAL WORKS BEING TIDAL WORKS AND ASSOCIATED WORKS ON LAND DESCRIBED AS LOT 143 ON SP121683, AT THE PORT OF HAY POINT

NQBP Reference: PL/03/02/00003

North Queensland Bulk Ports Corporation Ltd (NQBP) wish to advise that your development application seeking approval for installation of temporary piles, bed levelling and associated works at the Port of Hay Point was approved in full subject to conditions on 5 May 2017.

Approvals have been given with respect to Operational Works being Tidal Works under the *Sustainable Planning Act 2009* and Port Development Approval under the Port of Hay Point Land Use Plan (April 2010).

You are strongly advised to read and familiarise yourself with each of the enclosures applicable to this approvals package.

If you have any queries regarding the approvals package, please contact the undersigned.

Yours sincerely

Julie Keane

Julie Keane
Principal, Development Assessment

Telephone: (07) 3011 7912
Email: JKeane@nqbp.com.au
Doc Reference: E17/06208

Enc: Decision notice issued pursuant to s 334 of the *Sustainable Planning Act 2009*
Port development approval issued under the Port of Hay Point Land Use Plan (April 2010).

Cc: State Assessment and Referral Agency – Mackay Isaac Whitsunday Region
Mackay Regional Council

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Queensland 4001

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Level 1, Waterfront Place, Mulherin Drive Mackay Harbour Queensland is the Registered Office of:

NORTH QUEENSLAND BULK PORTS CORPORATION LIMITED

ACN 136 880 218 • ABN 36 136 880 218

PORTS CORPORATION OF QUEENSLAND LIMITED

ACN 126 302 994 • ABN 49 657 447 879

MACKAY PORTS LIMITED

ACN 131 965 707 • ABN 69 131 965 707

Decision Notice

Sustainable Planning Act 2009 s.334

1. Details of approval

<i>Applicant name:</i>	Sandvik Mining and Construction Australia Pty Ltd
<i>Approved development:</i>	Operational work, for tidal works, or work within a coastal management district (Schedule 3, Part 1, Table 4, Item 5(a)), comprising the following activities: <ul style="list-style-type: none"> • Installation and removal of five (5) temporary piles; and • Bed-levelling of the adjacent ramp to facilitate offloading of large machine modules from barges.
<i>Date of decision</i>	05 May 2017
<i>Type of approval:</i>	<input type="checkbox"/> Preliminary approval <input checked="" type="checkbox"/> Development permit <input type="checkbox"/> Compliance permit <input type="checkbox"/> Compliance certificate
<i>Aspect of development:</i>	<input type="checkbox"/> Carrying out building work <input type="checkbox"/> Carrying out plumbing or drainage work <input checked="" type="checkbox"/> Carrying out operational work <input type="checkbox"/> Reconfiguring a lot <input type="checkbox"/> Making a material change of use of premises
<i>Decision:</i>	<input type="checkbox"/> Approved <input checked="" type="checkbox"/> Approved subject to conditions <input type="checkbox"/> Refused

1. Property description of proposed development

<i>Port:</i>	Hay Point
<i>Street address:</i>	Half Tide Tug Harbour
<i>Real property description:</i>	Lot 143 on SP121683
<i>Local government area:</i>	Mackay Regional Council

2. Approved drawings and documents

The following drawings and documents have been approved. Copies of approved drawings are provided in an enclosure.

<i>Drawing or document</i>	<i>Number</i>	<i>Date / revision</i>
Hay Point Temporary Berthing Pile Analysis	N/a	17 February 2017
Hay Point Barge Landing Pad – Rotated 2 degrees	K17001-05 Rev B	Undated

3. Referral agency response

The relevant referral agency response is listed below, and attached to this decision notice. A copy of this decision notice has been sent to the referral agency in accordance with section 334 of the *Sustainable Planning Act 2009*.

<i>Referral agency</i>	<i>Advice / concurrence</i>	<i>Date of response</i>	<i>Reference number</i>
State Assessment and Referral Agency	Concurrence	27 April 2017	SDA-0317-037900

4. Approval under s 331

This application has not been deemed to be approved under section 331 of the *Sustainable Planning Act 2009*.

5. Preliminary approval affecting the planning scheme

Not applicable.

6. Codes for self-assessable development

Any self-assessable development related to the approved development must comply with the NQBP Sustainable Port Development Guidelines.

7. Submissions

Not applicable.

8. Conflict with relevant instrument

The assessment manager does not consider that the assessment manager's decision conflicts with a relevant instrument.

9. Effect of development approval

This development approval takes effect on the decision date, in accordance with section 339 of the *Sustainable Planning Act 2009*. Under section 340 of the *Sustainable Planning Act 2009*, development may commence on the date the development approval takes effect (i.e. the decision date).

10. Additional approvals required

This development approval is limited to Operational work, for tidal works, or work within a coastal management district (Schedule 3, Part 1, Table 4, Item 5(a)) on Lot 143 on SP121683 at the Port of Hay Point. At no time should this document be interpreted to imply approval to any other development, operation or land use.

This development approval does not remove the requirement for any other legislative approval requirements (including approvals under the *Sustainable Planning Act 2009*). It is the applicant's responsibility to ensure that all other necessary approvals to undertake the use / works approved under this development approval are obtained.

11. Relevant period for the approval

This development approval will lapse if development is not completed or substantially commenced within the relevant period stated under s 341 of the *Sustainable Planning Act 2009*.

Under section 341 of the *Sustainable Planning Act 2009*, the approved development must be either completed or substantially commenced within two (2) years of the decision date.

12. Applicant's appeal rights

Under section 461 of the *Sustainable Planning Act 2009*, an applicant for a development application has appeal rights relating to an Assessment Manager's decision. The following is an excerpt from the *Sustainable Planning Act 2009* regarding appeal rights.

s 461 Appeals by applicants

- (1) An applicant for a development application may appeal to the court against any of the following:
- a. the refusal, or refusal in part of the development application;
 - b. any condition of a development approval, another matter stated in a development approval and the identification or inclusion of a code under section 242 of the *Sustainable Planning Act 2009*;
 - c. the decision to give a preliminary approval when a development permit was applied for;
 - d. the length of a period mentioned in section 341;
 - e. a deemed refusal of the development application;
- (2) An appeal under subsection (1)(a), (b), (c) or (d) must be started within 20 business days (the applicant's appeal period) after:
- a. if a decision notice or negotiated decision notice is given – the day the decision notice or negotiated decision notice is given to the applicant;
 - b. otherwise, the day a decision notice was required to be given to the applicant.
- (3) An appeal under subsection (1)(e) may be started at any time after the last day of a decision on the matter should have been made.

Further information may be obtained from the Planning and Environment Court website:

<http://www.courts.qld.gov.au/courts/planning-and-environment-court>

13. Advisory information

Please note that the information contained in this section under the heading Advisory information has been provided as advice only and does not form part of the development approval conditions. This information has been provided to advise of other obligations under state legislation or local laws that may require action to be undertaken prior to commencing the activity approved by this development approval.

NOTES

Cultural heritage duty of care

1. Section 23 of the *Aboriginal Cultural Heritage Act 2003* establishes a duty of care for all persons carrying out an activity to take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage. It is the responsibility of the person/s undertaking the activity to ensure compliance with the duty of care.

A copy of the legislation can be accessed via

<https://www.legislation.qld.gov.au/LEGISLTN/CURRENT/A/AborCultHA03.pdf>

Hours of work and noise

2. Section 440R of the *Environmental Protection Act 1994* prohibits construction, building and earthworks activities likely to cause audible noise (including the entry and departure of heavy vehicles) between the hours of 6:30pm and 6:30am from Monday to Saturday and at all times on Sundays or Public Holidays.

A copy of the legislation can be accessed via

<https://www.legislation.qld.gov.au/LEGISLTN/CURRENT/E/EnvProtA94.pdf>

General safety during construction

3. The *Work Health and Safety Act 2011* establishes a number of obligations relevant to the project, in particular:

- a. Under section 19(2), a person conducting a business or undertaking must ensure the health and safety of other persons is not put at risk from work carried out as part of the conduct of the business or undertaking.
- b. Under section 20(2), the person in control of the workplace is obliged to ensure that the means of entering and exiting the workplace and anything arising from the workplace are without risks to the health and safety of any person.

A copy of the legislation can be accessed via

<https://www.legislation.qld.gov.au/LEGISLTN/CURRENT/W/WorkHSA11.pdf>

Attachment 1 ASSESSMENT MANAGER CONDITIONS

Condition		Timing									
Carry out the approved development											
<p>1. The Approved Development must be undertaken generally in accordance the plans and supporting documentation referenced in the table below and attached which forms part of this approval, unless otherwise specified by any condition of this approval.</p> <table border="1"> <thead> <tr> <th>Plan / Document name</th> <th>Plan / Document number</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Hay Point Temporary Berthing Pile Analysis</td> <td>N/a</td> <td>17 February 2017</td> </tr> <tr> <td>Hay Point Barge Landing Pad – Rotated 2 degrees</td> <td>K17001-05 Rev B</td> <td>Undated</td> </tr> </tbody> </table>		Plan / Document name	Plan / Document number	Date	Hay Point Temporary Berthing Pile Analysis	N/a	17 February 2017	Hay Point Barge Landing Pad – Rotated 2 degrees	K17001-05 Rev B	Undated	At all times.
Plan / Document name	Plan / Document number	Date									
Hay Point Temporary Berthing Pile Analysis	N/a	17 February 2017									
Hay Point Barge Landing Pad – Rotated 2 degrees	K17001-05 Rev B	Undated									
<p>2. Temporary piles are to be removed in their entirety. Certification of the removal is to be provided to NQBP (via planning@nqbp.com.au).</p>		Within four weeks of completion of operations.									
Site management											
<p>3. Conduct of the Approved Development must not adversely impact the effective and efficient operation of the Port.</p>		At all times.									
<p>4. Conduct the Approved Development must be in a manner which will ensure that infrastructure, services, property assets or utilities are not damaged during the construction or operation of the approved development. If any damage results, rectification must be undertaken at no cost and to the satisfaction of NQBP and / or the relevant service provider.</p>		At all times.									
<p>5. No marine sediment is to be removed from the area of bed levelling above the line of highest astronomical tide. Material imported to site as fill must not exceed 200 m³. All material imported to site as fill must be clean sand.</p>		At all times.									
General environmental management											
<p>6. A Construction Environmental Management Plan (CEMP) is to be submitted for approval by NQBP. The CEMP is to incorporate the following minimum requirements:</p> <ul style="list-style-type: none"> Detailed methodology for installation and removal of piles Detailed methodology for conduct of bed levelling Measures to be implemented to minimise turbidity generated through bed-levelling, such as conducting works during low tide 		Four weeks prior to commencement of works.									

Condition	Timing
<ul style="list-style-type: none"> Measures to manage interactions with marine fauna, being a requirement to stop work where marine mammals or marine turtles are within 100 m of the area of works Measures to minimise and manage spills from construction equipment Measures for the management of potential acid sulfate soils Measures to minimise and manage noise and dust emissions Measures to manage pile removal works including waste disposal. 	
<p>7. Where potential or actual environmental harm may be caused by carrying out of works associated with the Approved Development, NQBP may direct the:</p> <ul style="list-style-type: none"> cessation of an activity implementation of appropriate impact control measures modification of work plans or methods. 	At all times.
<p>8. Any environmental emergency, incident or potentially harmful event involving the approved development must be reported to NQBP's Environment Group via environment@nqbp.com.au or 07 4969 7000</p> <p>A written report must also be provided, detailing the following information:</p> <ul style="list-style-type: none"> name of the operator the name and telephone number of a designated contact person quantity and substance released person/s involved location and time of the release/event likely cause of release/event effects of the release sampling performed and conclusions drawn actions taken to mitigate any environmental harm proposed actions to prevent a recurrence. 	<p>Initial report: within 24 hours of the emergency, incident or event occurring.</p> <p>Written report: within 14 days of the emergency, incident or event occurring.</p>
Community	
<p>9. Any community complaints received by the Applicant, or party acting on behalf of the applicant, must be reported to NQBP's Planning Group via planning@nqbp.com.au or 07 3011 7900.</p> <p>A written report must also be provided, detailing the following information:</p> <ul style="list-style-type: none"> incident subject of the complaint investigations undertaken into the complaint proposed action to be undertaken to prevent further complaints. 	<p>Initial report: within 24 hours of the emergency, incident or event occurring.</p> <p>Written report: within 14 days of the emergency, incident or event occurring.</p>

Attachment 2 REFERRAL AGENCY RESPONSE



Department of Infrastructure,
Local Government and Planning

Our reference: SDA-0317-037900
Your reference: PL/03/02/00003

27 April 2017

Julie Keane
Principal, Development Approvals
North Queensland Bulk Ports Corporation Limited
GPO Box 409
Brisbane QLD 4001

Dear Ms. Keane,

Concurrence agency response—with conditions given under section 285 of the *Sustainable Planning Act 2009* for Development Permit for Operational Works – Tidal Works, or Work Within a Coastal Management District (Installation and removal of five (5) new piles; and Bed-levelling of the Adjacent Ramp to Facilitate Off-loading of Large Machine Modules from Barges) over Lot 143 on SP121683 at the Port of Hay Point, Half Tide Tug Harbour, Hay Point QLD 4740

The referral agency material for the development application described below was received by the Department of Infrastructure, Local Government and Planning under section 272 of the *Sustainable Planning Act 2009* on 20 March 2017.

Applicant details

Applicant name: Sandvik Mining and Construction Australia Pty Limited
Applicant contact details: Locked Bag 6
Milton QLD 4064
colm.lynch@sandvik.com

Site details

Street address: Port of Hay Point, Half Tide Tug Harbour, Hay Point QLD 4740
Lot on plan: Lot 143 on SP121683
Local government area: Mackay Regional Council

Application details

Proposed development: Development Permit for Operational Works – Tidal Works, or Work Within a Coastal Management District (Installation and removal of five (5) new piles; and Bed-levelling of the Adjacent Ramp to Facilitate Off-loading of Large Machine Modules from Barges)

Referral triggers

The development application was referred to the department under the following provisions of the Sustainable Planning Regulation 2009:

Referral trigger Schedule 7, Table 2, Item 13 – Tidal Works, or development in a coastal management district

Schedule 7, Table 2, Item 15 – Operational work in tidal waters

Conditions

Under section 287(1)(a) of the *Sustainable Planning Act 2009*, the conditions set out in Attachment 1 must be attached to any development approval.

Reasons for decision to impose conditions

Under section 289(1) of the *Sustainable Planning Act 2009*, the department must set out the reasons for the decision to impose conditions. These reasons are set out in Attachment 2.

Approved plans and specifications

The department requires that the following plans and specifications set out below and in Attachment 3 must be attached to any development approval.

Drawing/Report Title	Prepared by	Date	Reference no.	Version/Issue
Aspect of development: Operational Works				
Proposed Barge Ramp at Hay Point Tug Harbour	MPA Surveying	12 April 2017	K17001-05 Rev B	Revision B
Appendix One: Location of Piles	Houghton Environmental Management	10 March 2017	-	-
Hay Point Temporary Berthing Pile Analysis Report	HME Consulting Engineers Pty Ltd	17 February 2017	Pm5132 Hay Point Temporary Berthing Pile Analysis Report.doc	-

A copy of this response has been sent to the applicant for their information.

For further information, please contact Vivian Luxton, Planning Officer, SARA Mackay Isaac Whitsunday on (07) 4898 6815, or email viv.luxton@dilgp.qld.gov.au who will be pleased to assist.

Yours sincerely

A handwritten signature in blue ink that reads "Patrick Ruettjes". The signature is written in a cursive, flowing style.

Patrick Ruettjes
Manager (Planning) – Mackay Isaac Whitsunday Regional Office

cc: Sandvik Mining and Construction Australia Pty Limited, colm.lynch@sandvik.com
enc: Attachment 1—Conditions to be imposed
Attachment 2—Reasons for decision to impose conditions
Attachment 3—Approved Plans and Specifications

Our reference: SDA-0317-037900

Your reference: PL/03/02/00003

Attachment 1—Conditions to be imposed

No.	Conditions	Condition timing
Operational Works		
Schedule 7, Table 2, Item 13—Pursuant to section 255D of the <i>Sustainable Planning Act 2009</i> , the chief executive administering the Act nominates the Director-General of the Department of Environment and Heritage Protection to be the assessing authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
1.	The development must be carried out generally in accordance with the following plans: <ol style="list-style-type: none"> 1. Proposed Barge Ramp at Hay Point Tug Harbour prepared by MPA Surveying Dated 12 April 2017, Reference Drawing No. K17001-05 Rev B and Revision B. 2. Appendix One: Location of piles prepared by Houghton Environmental Management dated 10 March 2017. 3. Hay Point Temporary Berthing Pile Analysis Report prepared by HME Consulting Engineers Pty Ltd dated 17 February 2017, Reference pm5132 Hay Point Temporary Berthing Pile Analysis Report.doc. 	For the duration of works.
2.	For the proposed works only use materials which are free from contaminants as defined under section 11 of the <i>Environmental Protection Act 1994</i> .	For the duration of the works the subject of this approval.
3.	Erosion and sediment control measures are to be installed and maintained to prevent the release of sediment to tidal waters.	For the duration of the works the subject of this approval.
4.	Submit "As Constructed drawings" to palm@ehp.qld.gov.au or mail to Department of Environment and Heritage Protection Permit and License Management Implementation and Support Unit GPO Box 2454 Brisbane QLD 4001.	Within two (2) weeks of the completion of the works.
5.	As a result of works the subject of this approval any disturbed or oxidised acid sulphate soil must be treated and managed in accordance with the current Queensland Acid Sulfate Soil Technical Manual: Soil management guidelines, prepared by the Department of Science, Information Technology, Innovation and the Arts, 2014.	For the duration of the works the subject of this approval.
6.	The five (5) steel piles are to be totally removed.	Within two months of commencement of the demolition.

No.	Conditions	Condition timing
	Schedule 7, Table 2, Item 15—Pursuant to section 255D of the <i>Sustainable Planning Act 2009</i> , the chief executive administering the Act nominates the Director-General of the Department of Transport and Main Roads to be the assessing authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):	
7.	Any navigational aid that is damaged due to the construction, operation or maintenance of the approved development must be promptly repaired or replaced at the applicant's cost. In the event that any damage is caused to any aid to navigation, the Harbour Master must be immediately contacted on (07) 4944 3700.	At all times.
8.	"As Constructed" drawings of the approved structure must be provided to Regional Harbour Master, PO Box 58, Mackay QLD 4740.	Within two (2) weeks of the completion of the works.
9.	<p>(a) Provide written notice to Regional Harbour Master, PO Box 58, Mackay QLD 4740, when the development authorised under this approval is scheduled to commence.</p> <p>Each notice must state this application number, the location and name of registered place and the condition number under which the notice is being given.</p> <p>(b) Provide written notice to Regional Harbour Master, PO Box 58, Mackay QLD 4740, when the development authorised under this approval has been completed.</p> <p>Each notice must state this application number, the location and name of registered place and the condition number under which the notice is being given.</p>	<p>(a) At least two (2) weeks prior to the commencement of works.</p> <p>(b) Within two (2) weeks of the completion of works.</p>
10.	<p>All vessels, structures, plant and equipment associated with the construction of the approved works must be lit/marked in accordance with the following specifications and requirements such that undertaking the construction works does not cause a risk to the safe navigation of ships:</p> <ul style="list-style-type: none"> • Appropriate vessels & navigation lights, any anchors deployed must be marked with yellow buoys and marked with yellow lights fitted. • Lighting provided must not obscure, disguise or otherwise interfere with the effectiveness of navigational lighting. 	While the works are occurring.
11.	The construction, operation or maintenance of the structure, and any ship moored at this structure, must not impede the safe navigation of other ships or restrict safe access to or from the Half Tide Tug Harbour public boat ramp.	At all times.

Our reference: SDA-0317-037900

Your reference: PL/03/02/00003

Attachment 2—Reasons for decision to impose conditions

The reasons for this decision are:

- To ensure the development is carried out generally in accordance with the plans of development submitted with the application.
- To ensure the development avoids or minimises adverse impacts on coastal resources and their values.
- To ensure the natural processes and the protective function of landforms and vegetation are maintained in coastal hazard areas.
- To ensure any disturbance to acid sulphate soils is managed to prevent impacts to coastal environments.
- To ensure demolition of tidal work occurs in a timely fashion and does not adversely impact on coastal processes.
- To ensure that the development does not interfere with any existing aids to navigation.
- To facilitate the monitoring of the development works for compliance purposes.
- To ensure that at all times, all lights on or above the development site do not interfere with safe navigation in surrounding waterways.
- To ensure that the development does not impede the safe navigation of other ships or restrict access to neighbouring structures.

Our reference: SDA-0317-037900

Your reference: PL/03/02/00003

Attachment 3—Approved plans and specifications

Proposed Barge Ramp at Hay Point Tug Harbour
Ramp position based on Drawing 2887/01 by GLANVILLE

Survey by MPA Surveying
Horizontal Datum: MGA55 (Fixed by Static GNSS Observations)
Vertical Datum: LAT (AHD fixed by static GNSS Observation then LAT correction applied)

The barge grounding gradient was 6.75% on Glanville DWG2887/01
The revised gradient shown on this drawing is now 5.96% due to eastern edge being moved up 400mm to reduce the "cut" in the SE Corner

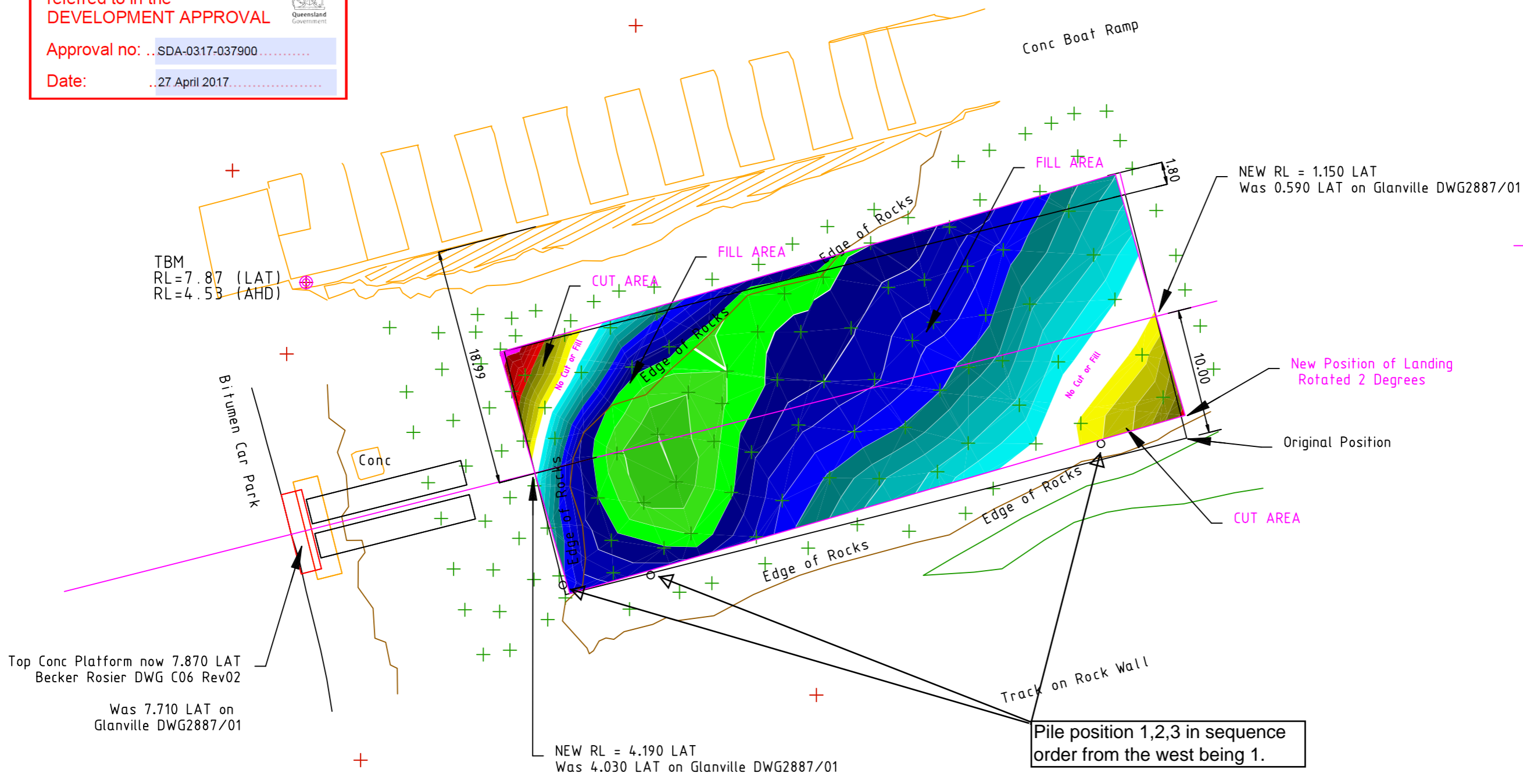
PLANS AND DOCUMENTS
referred to in the
DEVELOPMENT APPROVAL

Approval no: SDA-0317-037900

Date: 27 April 2017



TIN Difference	Lower_value	Upper_value	Colour	
-0.951	to	-100	m	Dark Brown
-0.901	to	-0.950	m	Black
-0.851	to	-0.9	m	Dark Grey
-0.801	to	-0.85	m	Grey
-0.751	to	-0.8	m	Light Grey
-0.701	to	-0.75	m	Very Light Grey
-0.651	to	-0.7	m	White
-0.601	to	-0.65	m	Light Purple
-0.551	to	-0.6	m	Light Blue
-0.501	to	-0.550	m	Blue
-0.451	to	-0.5	m	Dark Blue
-0.401	to	-0.450	m	Very Dark Blue
-0.351	to	-0.4	m	Black
-0.301	to	-0.350	m	Dark Red
-0.251	to	-0.3	m	Red
-0.201	to	-0.250	m	Orange
-0.151	to	-0.2	m	Yellow
-0.101	to	-0.150	m	Light Green
-0.05	to	-0.1	m	Green
0.05	to	0.1	m	Light Blue
0.101	to	0.150	m	Blue
0.151	to	0.2	m	Dark Blue
0.201	to	0.250	m	Very Dark Blue
0.251	to	0.3	m	Black
0.301	to	0.350	m	Dark Green
0.351	to	0.4	m	Green
0.401	to	0.450	m	Light Green
0.451	to	0.5	m	Yellow
0.501	to	0.55	m	Orange
0.551	to	0.6	m	Red
0.601	to	0.65	m	Dark Red
0.651	to	0.7	m	Black
0.701	to	0.75	m	Dark Blue
0.751	to	0.8	m	Blue
0.801	to	0.85	m	Light Blue
0.851	to	0.9	m	White
0.901	to	0.95	m	Light Grey
0.951	to	100	m	Dark Grey



PROJECT NAME: Barge Landing
PROJECT NUMBER: K17001 Hay Point Tug Harbour Barge Landing
Hay Point Barge Landing Pad - Now Rotated 2 Degrees
Proposed re-design of "Glanville" DWG 2887/01
Created to reduce amount of cut



DRAWING: K17001-05 Rev B
SHEET: 1 of 1
DESIGNER: MPA Surveying
REVISION: B



PLANS AND DOCUMENTS
referred to in the
DEVELOPMENT APPROVAL



Approval no: ...SDA-0317-037900.....

Date: ..27 April 2017.....

Appendix One Location of Piles

PLANS AND DOCUMENTS
referred to in the
DEVELOPMENT APPROVAL



Approval no: ...SDA-0317-037900.....

Date: ...27 April 2017.....



Ruler [Close]

Line Path Polygon Circle 3D path 3D [Left] [Right]

Measure the distance between two points on the ground

Map Length:	54.13	Meters
Ground Length:	54.13	
Heading:	72.43	degrees

Mouse Navigation [Save] [Clear]

H.M.E. CONSULTING ENGINEERS Pty. Ltd.

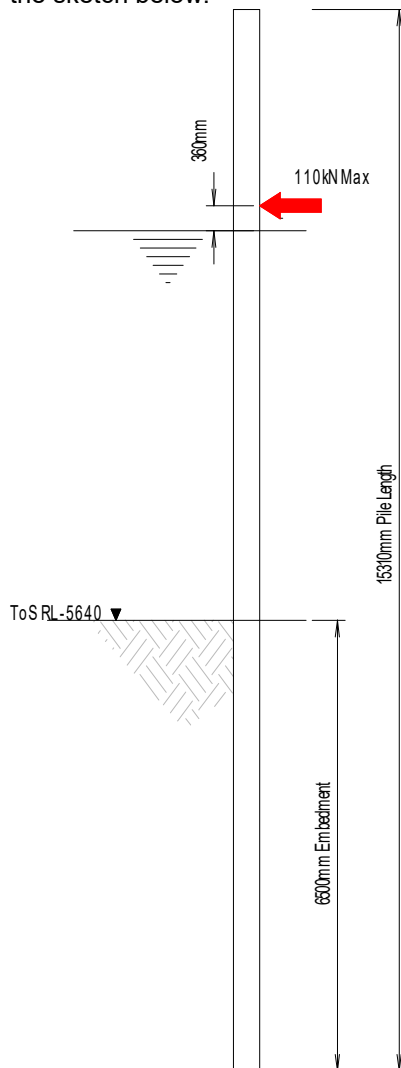
Trading as Hooper Family Trust
Registered Professional Engineers, Queensland A.C.N. 011 058 405
A.B.N. 79 988 619 776

P.O. Box 5884
Mail Centre
TOWNSVILLE 4810
Phone (07) 4724 1666
Fax (07) 4724 1600
Mobile 0417 611 720

17 February 2017

Hay Point Temporary Berthing Pile Analysis Report

The proposed berthing for the Pacific Marine Group barge plus loading against the temporary pile installation proposed at Hay Point has been analysed for a berthing load of 110kN as shown in the sketch below.



PLANS AND DOCUMENTS
referred to in the
DEVELOPMENT APPROVAL



Approval no: ...SDA-0317-037900.....

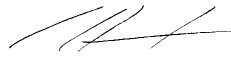
Date: ..27 April 2017.....

The proposed impact point is taken as being 6 metres above the sea bed with a freeboard to the impact runner on the barge of 360mm. This gives a still water depth of 5640mm. The AUW of the barge and load has been taken as 925 tonnes.

Analysis of the 20" XS (610mm) pile was done for sandy embedment to a depth of 6500mm. Analysis of the pile to AS3990 steel code gave a safety factor of 1.27 to 1 for the pile wall material and a resistance against overturning of 2.8 to 1 when analysed using the Brinch Hansen method to AS2159 piling code.

A review of the berthing forces was then done to BS6349-4 for a berthing velocity of 0.07 m/sec (1.4 knots) and the berthing loads reached 36.8kN against a design of 110kN so it can be seen that the design review yields conservative results.

This design is considered adequate for its intended purpose.



Col Hooper
RPEQ 3230
NPER 1021196

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL	
Approval no: ..	SDA-0317-037900
Date: ..	27 April 2017

Port Development Approval

Port of Hay Point Land Use Plan (April 2010)

1. Details of approval

<i>Applicant:</i>	Sandvik Mining and Construction Australia Pty Ltd
<i>Approved development:</i>	<ul style="list-style-type: none"> • Installation and removal of five (5) temporary piles; • Bed-levelling of the adjacent ramp to facilitate offloading of large machine modules from barges; and • Associated access and laydown areas.
<i>Currency of approval:</i>	The approved development must be either completed or substantially commenced within two (2) years of the decision date
<i>Decision date:</i>	05 May 2017
<i>Decision:</i>	<input type="checkbox"/> Approved <input checked="" type="checkbox"/> Approved subject to conditions

2. Property description of proposed development

<i>Port:</i>	Hay Point
<i>Street address:</i>	Half Tide Tug Harbour
<i>Real property description:</i>	Lot 143 on SP121683 and Lot 144 on SP121683
<i>Lease:</i>	N/a
<i>Lessee:</i>	N/a

3. Approved drawings and documents

The following drawings and documents are approved by NQBP as the basis for the works. Copies of these approved drawings are provided as an enclosure.

<i>Drawing name</i>	<i>Drawing number</i>	<i>Revision and date</i>
Hay Point Temporary Berthing Pile Analysis	N/a	17 February 2017
Hay Point Barge Landing Pad – Rotated 2 degrees	K17001-05 Rev B	Undated

4. Additional approvals required

This Port Development Approval is limited to proposal described above. At no time should this document be interpreted to imply approval to any other development, operation or land use.

This Port Development Approval does not remove the requirement for any other legislative approval (including approvals under the *Sustainable Planning Act 2009*).

It is the proponent's responsibility to ensure all necessary approvals, permits and licences are obtained to undertake the proposed use / works.

5. Conditions of approval

Condition	Timing
Carry out the approved development	
1. The Approved Development must be carried out in accordance with all Special Conditions detailed in Annexure C of the Permit to Occupy executed on 17 March 2017 between NQBP and Sandvik Mining and Construction Pty Ltd.	At all times.
2. NQBP Port Operations (via dbaker@nqbp.com.au) must be advised of commencement of works and project timing.	Two weeks prior to commencement of works.