

1 November 2024

Hon Ruth Forrest MLC
Chair
Parliamentary Standing Committee of Public Accounts
Parliament House
Hobart TAS 7000

Email: [REDACTED]

Dear Chair

Questions on Notice: Inquiry into the TT-Line Spirits Project

I refer to your letter dated 10 October 2024 and provide the following written response to the questions contained therein and include for the information of the Committee the requested documents as outlined in Schedule 1 attached to this letter:

1. A copy of the Gemell Report you received and your review of it.

Attachment 1 is the Gemell Document with the CEO and Project Management comments for the TT-Line Board

2. A copy of all joint Tas Ports and TT-Line CEO reports, as sent to the Treasurer and indication of the date these reports were sent to the Treasurer.

Attachment 2 are the 4 reports that we jointly produced.

3. A copy of the email sent by TasPorts to the Treasurer on 28 February 2024, including the joint CEO report attachment.

Attachment 3 is a copy of the email and another copy of the joint report

4. A copy of the link to webcam footage of the construction site of Berth 3.

Website:

User:

Password:

[REDACTED]

5. A report on when TT-Line's monthly reports, as required under the AFL, were provided.

TT-Line provided project from November 2022 to January 2024, then March 2024 and April 2024, and where TT-Line didn't provide a report, a verbal update was provided and TasPorts agreed with that arrangement. Copies of these reports can be provided. Joint project meetings were also held and reported monthly as joint minutes.

6. Clarification on the status of the geotechnical investigations issue in TT-Line's August 2023 report, which was marked as closed.

The Geotechnical investigations was marked as closed as TT-Line had completed the investigations to the available areas which didn't include the Marine zones as we discussed with TasPorts. TT-Line were obviously desperate to try and progress the design and subsequently the procurements for the project, so we pushed on with that risk of not having the marine zones captured. At the time, we thought this was going to be sufficient, however the results of the investigations highlighted extreme variability (which we discussed at the PAC Hearing) which necessitated the need for more investigations as stated in the technical memo. Attachment 4

In response to your in-camera questions.

Attachment 6

have any further questions, please email

Yours sincerely


Bernard Dwyer
Managing Director / Chief Executive Officer
TT-Line Company Pty Ltd

TT-Line Company Pty Ltd

Board Paper

No. 343.15

20 June 2024

Title:	Cabinet Sub Committee Papers
Report type:	For Information
Agenda Item Number:	15
Responsible for Report:	Bernard Dwyer, Chief Executive Officer
Purpose of Report:	To provide Directors with a copy of the two papers presented to the Cabinet Sub Committee from Peter Gemell.

TT-Line Company Pty Ltd

20 June 2024

Cabinet Sub Committee Papers

Purpose of Paper

This paper is to provide a copy of the first report on the Quaylink Project submitted by Peter Gemell to Government in February 2024, with TT-Line management's comments included.

We have now received approval from the Minister for the TT-Line Board to have access to Cabinet Papers, we have also included the Gemell Report from the last Sub Committee Meeting that outlines all options reviewed by Peter, TT-Line, TasPorts and consultants leading up to that meeting.

We have also now received a Directions Letter relating to Berth 3 that is included in the Correspondence Section of this meeting.

Background

Peter Gemmel was appointed by the Government to assist with the work being undertaken by TT-Line and TasPorts in the establishment of berthing infrastructure in Devonport.

We worked with Peter during November and December 2023 and provided as much information as requested on the Berth 3 Project and progress. We understand he had the same process to work with TasPorts.

Peter also sat in on the joint Project meetings with TT-Line and TasPorts over that period.

While we were aware Peter was drafting a report we were not provided with a copy as it was for Government only at that time, and the report acknowledges that the respective CEOs did not review the report prior to submission. The report was Peter's observations and some recommendations of which we were not made aware.

We were provided a copy of the report on the 24th of April 2024 after a State Growth Steering Committee was planned to be formed as a starting point for discussions.

During the first meeting with State Growth, we addressed the points raised, and all parties agreed that the report was well out of date and has not been referenced again.

We have reviewed the report again for the Board and provide a copy with our comments (Bernard in Red and Will Harper in Green) on key areas of the report.

We requested last week that this Cabinet-in-Confidence report be made available to all Directors in this Board Meeting. We received this approval in writing on the 18 June 2024. Now we have had approval from the Minister, we have also included in this paper the report Peter Gemell made to the last Cabinet Subcommittee meeting that outlines the review and analysis made by several parties in relation to the most effective way of ensuring there is a berth to operate from when the new ships arrive and the completion of Berth 3 infrastructure with the least implementation and cost impacts.

Key Points

The Key Points to note are:

- TT-Line had already planned to add resources to the project as required and identified by the Project Manager. This occurred from February onwards.
- Attached is the report with comments at the relevant areas.
- Peter Gemmell did not review all the detail that the Project Manager and the team had in their ongoing documentation.
- We not only have a TT-Line project team but also use external parties to assist in the process from day one and these include:
 - P&M Consultants (our design engineers)
 - Page Seager who worked on the original AFL
 - HFW for contract review and assistance
 - SMEC for Geotech procurement and analysis
 - Cavotech – Shore Power and AMS Systems
 - Crib Point Engineering for linkspan design and production
 - Switch Co Project Management support
 - North Projects
- As mentioned before, we addressed the points in the report in April with State Growth while we planned options for a path forward for the required infrastructure, this report has not been referred to since.
- During the review, since the involvement of State Growth and the Cabinet Subcommittee, several parties had been asked to review the best option to ensure that the first ship has a berth to operate from in Devonport when it arrives and also how to ensure Berth 3 continues on the path set with time and cost implications.
- This work was completed with Peter Gemell co-ordinating the review by TasPorts and TT-line with BMD and Fitzgeralds.
- Attached is the report tabled with the Cabinet Subcommittee and as mentioned we have now received a direction from the Government along with TasPorts to progress on the recommendation being the new ships operate temporarily out of Berth 1 in Devonport facilitated by the work required by TasPorts and TT-Line focus on the completion of Infrastructure at Berth 3.

Submitted by: Bernard Dwyer, Chief Executive Officer

Report of the Devonport QuayLink Program Integrator

Peter Gemell, Effective as at 12 February 2024

Context of this report

1. This report is prepared by the Devonport QuayLink Program Integrator (the Integrator). The purpose of the Integrator role is to work with TasPorts) and TT-Line with the goal of ensuring the coordinated delivery of the Landlord (TasPorts) works and the Tenant (TT-Line) works for the QuayLink Program in Devonport.
2. The Integrator recognised that the separation of delivery of the Landlord works and the Tenant works had likely been in good faith, with the objective of ensuring that each of TasPorts and TT-Line would be responsible for its own infrastructure at the Port of Devonport. While the separation created a significant interface, it was probably developed to align with the:
 - a. separation of obligations under the Agreement for Lease (AFL); and
 - b. governance arrangements for each of TasPorts and TT-Line.
3. The Integrator recognised that the TasPorts and TT-Line project teams were working cooperatively and collaboratively to satisfy their respective obligations under the AFL.
4. Given that the Integrator's stated role was to integrate, the Integrator focused on the present circumstances and reviewed past circumstances only to inform future expectations.
5. The Integrator recognised the limited duration and depth of his involvement in the project and exercised caution in his conclusions. The Integrator relied on his active infrastructure experience over the past 45 years.
6. The following sections sequentially address the Integrator's findings in relation to the QuayLink Program delivery as at 12 February 2024.
7. It should be noted that this report is:
 - a. Not conclusive.
 - b. Not tested with the Chief Executive Officer's (CEO's) or the teams; and
 - c. the professional opinion of the Integrator.

Status of Activities

1. The Integrator's initial tasks in the week prior to Christmas were to meet with CEO's of TasPorts and TT-Line, both separately and together.
2. During the first two weeks of January 2024, the Integrator met with TasPorts and TT-Line teams and was briefed on their perspectives of issues and reviewed particular documentation.
3. Over the following two weeks, the Integrator attended two coordination meetings and two joint steering committee meetings and held further discussions with project team members and CEO's. The Integrator also reviewed numerous programs and project documents.
4. At the time of the Integrator's engagement (in late December 2023), TT-Line's advice and reports indicated that:
 - a. Berth 3 would be operational (with the Deck 3 ramp operational) on 30 August 2024;
 - b. The Tenant works contract execution was anticipated on 11 February 2023; and
 - c. The new vessel delivery expected in August 2024.

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5. In early February 2024, TT-Line's advice and reports indicated that:
 - a. Berth 3 would be operational (applicable to all three ramps) on 9 May 2025.
 - b. The Tenant works contract execution would be 29 February 2024 (having not been completed on the interim nominated date of 29 January 2024); and
 - c. The new vessel delivery would remain unchanged.
 6. The Integrator did not have any interaction with the intended Tenant works contractor, Hazell Brady Joint Venture (HBJV). The Integrator did not have authority to engage HBJV nor was HBJV engaged under a contract at this point in time. The Integrator was also careful not to adversely affect the Tenant contract execution process.
 7. It appears that there has been earlier interactive processes between TasPorts and TT-Line which TT-Line considered had caused it to be delayed. While the Integrator understands that TasPorts could be perceived to be a demanding counterparty, it is the Integrator's opinion that TasPorts' requirements substantially related to deliverables under the AFL, which include:
 - a. Management plans;
 - b. Construction design;
 - c. Studies, including traffic studies;
 - d. Insurance policies (public liability, design PI);
 - e. Contract data;
 - f. Site access licences;
 - g. Geotechnical site information;
 - h. Environmental reports; and
 - i. Draft construction licenses.
 8. It appears that TT-Line also experienced some delays which were not expected (but not particularly unusual) due to variable geotechnical conditions and design development.
 9. Both the TasPorts and TT-Line advised that at the time of preparation of this report there are no delays being suffered by either party caused by the other. (Access to the site was still however limited, as experienced with a subsequent geotechnical campaign which was not able to be completed due to the ongoing presence of the TasPorts Barge completing wharf construction)
 10. Based on reports and meetings in late 2023, the Integrator was under the impression that execution of the Tenant contract was imminent, meaning that it appeared that all outstanding issues were essentially resolved. (We advised Peter that we still did not have access to complete the geotechnical work to finalise the design of Piles, Headstocks and then final Gantry) (Access was still constrained, and varying site access dates were being reported by TasPorts. However due to the urgency in proceeding with critical path works, we elected to proceed towards the contract execution and resolve access challenges progressively. However, without confirmed access to commence the significant marine works scope, executing a contract that would contain obligations around site access would have placed TT-Line at severe commercial risk if this was not provided. Not officially advised by Tasports however was that any work in the marine pocket was not able to be accommodated until their Barge had completed wharf pre-cast placement. This would have placed a significant cost penalty on TT-Line had we executed the contract at that time and mobilized a contractor to site.
 11. TT-Line is currently reporting that its Tenant contract with HBJV will now be finalised mid-February 2024 and executed by 29 February 2024. TT-Line has identified that the delivery program, the pricing and the contract departures remain to be resolved. (This is when HBJV

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- came back with figures that we could not get them to substantiate) (despite repeated attempts in good faith)
12. TT-Line is currently progressing commencement activities under a letter of commitment with HBJV.

The Integrator's Observations

1. The project teams for both TasPorts and TT-Line are collegiate and supportive and are working with the best effort and intent.
2. TT-Line appears to hold the view that TasPorts' enforcement of the AFL caused TT-Line to be delayed. (Was still causing, it kept going)
3. The parties have jointly modified scope to minimise the interfaces (including modification of revetment walls at pile locations). (this was not done jointly, Tasports generally pushed ahead with the same design criteria that was conceived in early 2022). There are significant interface issues due to the scope apportionment that TasPorts authored into the AFL. Namely
 - a. Inability for any marine work (including low impact Geotech) to be undertaken while the wharf construction was in progress
 - b. Resistance around access requests to undertake critical geotechnical works
 - c. A staging plan that did not allow sufficient time to complete the contained scope
4. TT-Line has expressed the view that it is not further delaying the Berth 3 completion by the delays to execution of the Tenant works contract. (Not accurate at all) (This doesn't make sense)
5. TasPorts has offered to undertake additional works under its Landlord contract to assist TT-Line's Tenant work start up. TT-Line has not taken up this offer. (We discussed that this could not happen as the Geotech surveys could not be completed whoever had access to the site) (This is completely false, TasPorts had no intention of doing any work for TT-Line and expressly attempt to offload scope at any opportunity. The offer to undertake piling from HBJV was fraught with risk)
 - a. No guarantee around completion
 - b. No undertaking of subsurface conditions or any methodology developed to deal with
 - c. We were in the middle of a procurement process which would have been upended by removing a significant amount of the tendered scope
 - d. TasPorts stated they would not permit the work to be done via C48 variation
 - e. TasPorts would not have permitted the contract and encompassed risk profile to be approved in the way proposed by HBJV
6. From 14 November 2023 to now (eight weeks), the date of Tenant contract execution has extended by 11 weeks (11 December 2023 to 29 February 2023). Further, TT-Line's execution pathway plan introduced numerous new activities including repricing, reprogramming, and resolution of contract departures.
7. It appears to the Integrator that the TT-Line team's specific relevant experience appears to be relatively limited and the TT-Line organisation does not appear to employ embedded systems and the developed capabilities which are typically required to support successful infrastructure development. (Will can answer this as he does have systems and experience in projects like this. He does hold his ground which isn't appreciated sometimes by TasPorts or Peter.) (We

were well supported by several SMEs and experts with significant experience in these projects. We have also deployed systems to support the project delivery.

8. The TasPorts team appears to be relatively experienced in major infrastructure delivery and TasPorts uses embedded systems. (I am not sure how Peter has proven this based on TasPorts failure to delivery projects outside of Devonport. E.g. The Burnie Loader) TasPorts have experienced major issues with their own contracts including; a 6 month delay completing a dredging and. Delays completing the wharf. Additionally, review of the AFL which TasPorts were the architect of would also highlight numerous major issues and obligations not conducive to successful project delivery
9. At this point in time the HBJV's revised Tenant contract program is not expected until 16 February 2024.
10. The TT-Line team appears to be under significant stress to achieve their targets. The Integrator is very concerned not to distract (or divert) the limited resources. The Integrator requested to be issued the pathway to execution when it realised that the Tenant works contract execution was not imminent. The Integrator's earlier assumption that "all material issues were substantially resolved" was revealed to be incorrect. (we had discussed this with Peter as noted above)
11. TT-Line appear to be relying on the Tenant contractor to resolve programming issues. It is not clear how much influence TT-Line has on the yet to be delivered program. The Integrator is not aware how design constructability has been addressed (or Geelong "Lessons Learned" incorporated) in the proposed Tenant works contract. (It is TT-Line with its Marine Architect that have been advising of the programme. Not quite sure what Peter was getting at here.) We used significant amount of material developed from the Geelong project (which had numerous of its own issues). They are also completely different sites so a direct comparison for programming purposes is not appropriate.
12. The Integrator is not aware how design constructability has been addressed (or Geelong "lessons learned" incorporated) in the proposed Tenant works contract. (Cut and paste error from Peter)
13. The Integrator is not aware how departures resolution and reporting has been undertaken by TT-Line and TasPorts in relation to the Tenant works contract. (This was and still is being managed by the joint project team of TT-Line and TasPorts)
14. While there has been numerous suggestions, the Integrator is not aware of a proven interim operating solution having been developed for the period between the new ship delivery and (full or partial) completion of Berth 3.
15. TasPorts, TT-Line and other affected parties, while being aware of isolated organisational processes, have not entered a focussed cooperative and collaborative arrangement for investigating interim operation solutions.
16. TT-Line has advised that it is considering modifying its piling to accelerate the works. The Integrator became aware of this on 6 February 2024, but is not aware of the detail (and until a program is provided, it is unknown if pilings are critical). (As we know the piling is and always was on the critical path and needed final GeoTech analysis for contractors and designers to agree solution for piling and gantry final design). We are also looking to accelerate the works, there were a couple of initiatives discussed. All however required a full understanding of geotechnical conditions which we were unable to attain.

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17. The Integrator was advised that TT-Line had recently engaged the Devonport Harbourmaster in relation to operating the new vessel in Berth 1 and concluded that it is not feasible. The Integrator was advised of this on 6 February 2024 and is not aware of the extent of analysis.
 18. TT-Line has now been advised that “risk and cost” prevent the option to limit construct only the deck three ramp to enable early operation at Berth 3. The Integrator was advised on 6 February 2024 and is not aware of the extent of analysis.
 19. TT-Line has engaged a marine design and construction expert to assist its project delivery (who is initially reviewing design and analysing lessons learned at the Geelong berth site).

The Integrator’s Opinions

1. The new vessel will (almost) certainly be available for service substantially prior to the commissioning of any of the Berth 3 options.
2. The continued changes to program activities and the delay in recognition and reporting of the realistic completion date for the Tenant works by TT-Line are strong indicators of the urgent need to provide additional experienced personnel and robust systems to supplement TT-Line’s Tenant works project management and contract administration capability and capacity. (New personnel were added from February to assist in the workload and management of parties.)
3. In view of the prolongation experienced to date, the Integrator is not confident that the contract for Tenant works will be executed by the currently predicted date of 29 February 2024.
4. In view of the prolongation experienced to date and the unresolved Tenant contract issues, the Integrator is not confident that the Tenant works will be contractually committed to be completed on 9 May 2025.
5. On the basis that the deliverables required by TasPorts under the AFL were not unusual, the Integrator is concerned that the TT-Line team may not be adequately prepared to deal with the range of events or circumstances likely to be encountered in the delivery of the Tenant works. (Strongly disagreed with this) (It's not that the deliverables are unusual, but TasPorts involvement as the controller of approvals that is the difficulty. No port authority in the country would ever request to approve a works contract and be dictating terms contained in.
6. Additional skilled resources, systems and experts will be necessary to effectively manage the Tenant works contract. (As stated resources were planned and added from February)
7. Transparent, focussed and collaborative engagement between all affected parties will be necessary to develop an efficient and effective interim operating plan.
8. There will be costs and risks associated with the interim operating plan.
9. The circumstances where an ‘integrator’ could materially improve outcomes is now past.

The Integrator’s View of Risk and Recommendations

1. There is limited remaining risk of interface coordination and cooperation risk between Landlord (TasPorts) and Tenant (TT-Line). This is essentially due to:

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- a. the cohesive and cooperative approach by both parties at the project management level;
 - b. the confirmed lack of dependencies between the future Landlord contract activities and the Tenant contract activities;
 - c. the prior agreements between TasPorts and TT-Line to adjust scope to minimise work interface issues;
 - d. the pending completion of documentation obligations arising from the Agreement for Lease; and
 - e. TasPorts' standing offer to undertake urgent tenant works under its Landlord work contract if requested by TT-Line to accelerate the Tenant works

Recommendation is to:

- *terminate the role of Integrator as integration between TasPorts and TT-Line as it is no longer required.*

2. There appears to be significant risk associated with the resolution and execution of the Tenant Contract documents due to the:
 - a. incomplete and unchecked nature of the proposed contract program; (disagree) (
 - b. potential opportunity to limit scope to accelerate the opening of Berth 3;
 - c. unresolved proposed departures from the reference contract;
 - d. unresolved repricing;
 - e. unresolved contract design elements;
 - f. limited project human resources and systems within the TT-Line team; (as stated new resources added and not sure Peter was aware of all 3rd parties we were using at the time.)
 - g. the limitations on availability and accessibility of appropriate personnel and systems; and
 - h. the time imperative to execute Tenant works contract.

Recommendations are to:

- *As reasonably required, implement TasPorts' proposal to progress early tenant works under the TasPorts contract with HBJV to avoid any delays. (impossible without the geotechnical work being completed across the site) (Tasports would have never agreed to this)*
- *Immediately establish a joint project management team consisting of experienced TasPorts and TT-Line personnel and utilise TasPorts' project management system while reporting to a purpose steering committee; (This was already in place – joint project team)*
- *or alternatively to the above, direct TasPorts to take over the management of the Tenant works contract (and incorporate the relevant TT-Line personnel in the management team); and*
- *Immediately deploy the consolidated management team to review and resolve program, scope, departures, pricing and design to finalise 'Tenant Contract' execution.*

3. There appears to be significant risk associated with the ongoing management of the Tenant Works contracts due to:

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- a. TT-Line's apparent limited human resources; (Already resolved)
 - b. TT-Line's apparent limited project delivery experience; (Disagree) (I don't think any specific expert or team would have been able to overcome the immense challenges this project has been caused as a result of the structure in the AFL and TasPorts adjacent works).
 - c. TT-Line's apparent lack of embedded infrastructure management systems and processes (i.e., cost, time, quality safety, environment, community etc); (Will can answer this in detail) (Peter never had any exposure to any of these. We have implemented ProCore and this has always worked well)
 - d. the scarcity of externally available appropriate resources and systems. (Not true)

Recommendation is to:

- *Immediately establish a joint project management team consulting of experienced TasPorts and TT-Line personnel and utilising TasPorts' project management systems while reporting to a purpose steering committee; or*
- *Alternatively, require TasPorts to take over the management of the Tenant works contract (and incorporate the relevant TT-Line personnel in the TasPorts team).*

4. There appears to be significant risk that an appropriate interim operating solution will not be developed in time for operation of the new vessel, given that it is likely that its delivery will be more than (say) eight months prior to the advised Berth 3 completion date of 9 May 2025.

Recommendations are to:

- *Immediately establish a separate, senior joint working group to actively and collaboratively identify, evaluate and develop interim operating opportunities to utilise the new vessel prior to completion of Berth 3;*
- *Include senior experienced representatives of relevant state corporations and agencies; and*
- *Diligently and comprehensively identify and evaluate all feasible interim operation opportunities, including:*
 - *Berth 1;*
 - *Berth 3 with Deck 3 ramp only; and*
 - *other parts and berths.*

5. In the event that the above recommendations are implemented, there appears to be the risk that:
 - a. TT-Line does not consider that it has discretion and control in relation to the scope of the Tenant works; and (This is an odd statement)
 - b. TT-Line does not consider that the costs for TasPorts' involvement represents the real and reasonable actual costs incurred by TasPorts to provide its resources and systems in relation to the Tenant works project management services.

Recommendations are to:

- *Require TasPorts to advise a budget for its services.*

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- *Enable TT-Line to determine its scope discretions.*
 - *Require TasPorts to provide justification of costs on a monthly basis.*
 - *Appoint an independent person to arbitrate on any disagreements between TT-Line and TasPorts in relation to Tenant scope and/or TasPorts' costs for participation in tenant works. (This will be in the form of the State Growth Steering Committee which we support)*

Peter Gemell
Devonport QuayLinkProgram Integrator

12 February 2024



QuayLink: Terminal 3

Monthly CEO Report – November 2023



TasPorts

Devonport QuayLink

Activities complete this month (November 2023):



- Completion of dredging
- Completion of piling
- Finalised revised design
- Ongoing precast fabrication
- Commenced placement of wharf headstocks



- HBJV appointed as preferred tenderer
- Letter of Commitment issued to progress preliminary contract activities
- Finalizing marine, civil and building designs for construction
- Progressed contract formalization with HBJV
- Finalised environmental baseline works
- Finalised geotechnical reports

Combined

- Kick off meeting between TasPorts, TT-Line and HBJV
- Regular steering committee and interface meetings held
- Progressed revised staging plans to allow access to areas sooner

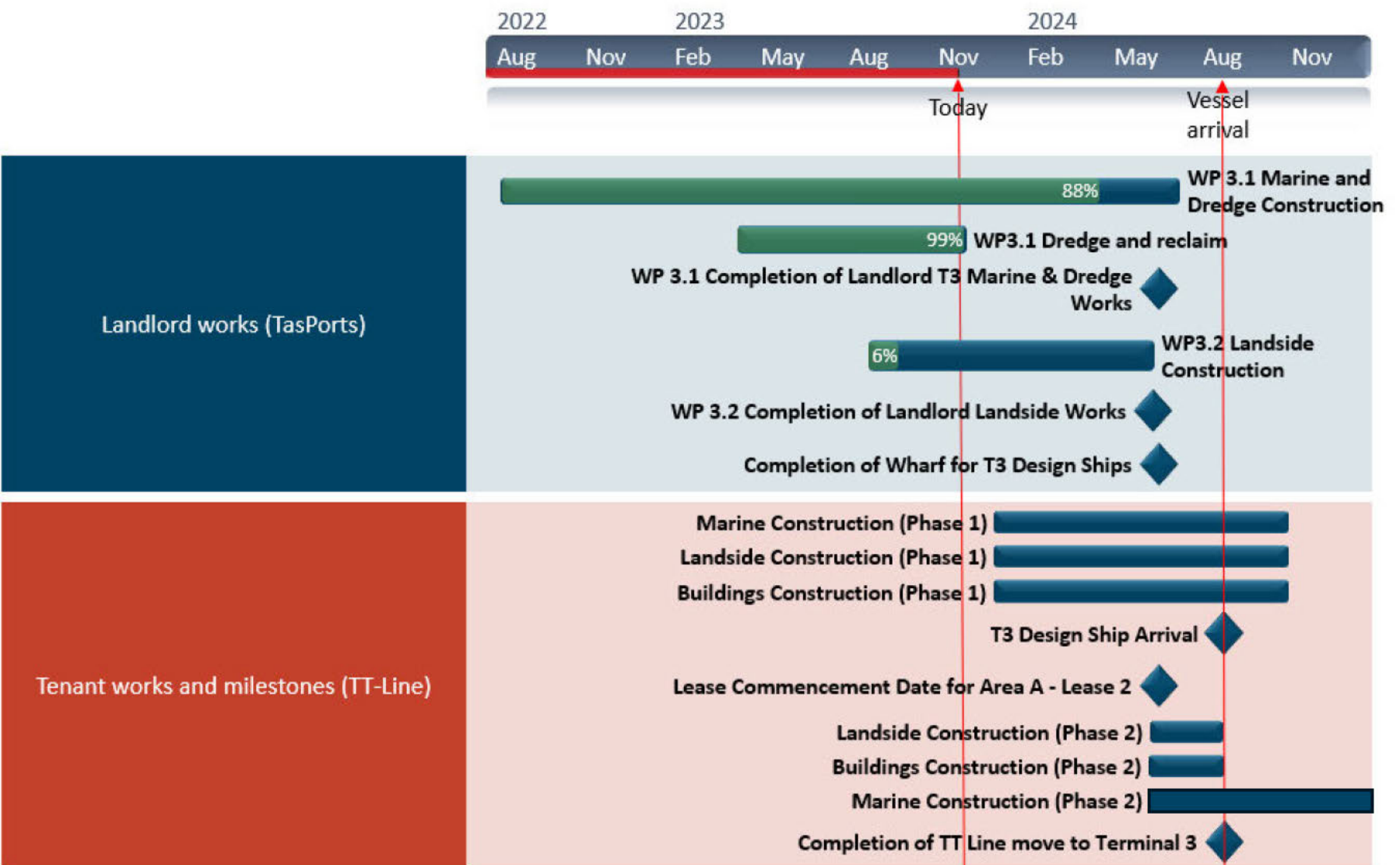
Activities planned next month (December 2023):

- Competition of separable portion 1
- Provide draft construction licence to TT-Line
- Commence review of TT-Line supplied document prior to site access

- Provision of review documents under Agreement for Lease to TasPorts including management plans and design documents
- Provision of Tenant works schedule to TasPorts
- Provision of updated forecast milestone dates under AFL
- Finalisation of designs for construction
- Procurement of piles, steelwork and other items
- Contract negotiations between the HBJV and TT-Line

Combined

- Integration of construction schedules
- Meeting to progress interface works and variations under TasPorts contract
- Progress construction licence between HBJV, TasPorts and TT-Line



Notes – High level schedule based on forecast dates only not to supersede the AFL Master Schedule

Activities under agreement between parties (AFL)	Baseline End Date	Forecast End Date (previous month)	Actual End Date	Comments
TasPorts Milestones				
Completion of Marine and Dredge Works	24/4/24	24/6/24	-	Extension of time entitlement under the Agreement for Lease with TT-Line
Completion of Landlord Landside Works	6/04/24	20/6/24	-	Extension of time entitlement under the Agreement for Lease with TT-Line
TT-Line Milestones				
Marine Package - Construction (Ramp, Linkspan, Spaceframe)	6/05/24	30/8/24	-	Deck 3 Only Operation Option Gantry and Linkspan for Decks 5 and 7 to be In progress beyond this date (Phase 2 Works)
Landside Package - Construction (Freight Yard & related civils)	6/05/24	30/8/24	-	
Landside Package - Construction (Freight Yard & related civils)	6/05/24	30/8/24	-	
Landside Package - Construction (Passenger Vehicle Entry & Marshalling)	24/6/24	30/8/24	-	
Buildings Package - Construction Temporary Terminal	24/6/24	30/8/24	-	
Marine Package - Construction (Wharf) (Area A)	25/6/24	30/8/24	-	
Notes – Stages 4 onwards omitted for clarity; only millstone activities required for operational terminal shown				



QuayLink: Terminal 3

Monthly CEO Report – January 2024



TasPorts

Devonport QuayLink

Activities complete this month (January 2024):



- Placement of first fender block on wharf
- Council approval received to acquire the land for the new biosecurity facility
- Final design hold points released for the wharf



- HBJV Preliminary works progress under Letter of Commitment including Temporary works designs, procurement of key items, site investigations and mobilization preparations
- Letter of Commitment issued to progress preliminary contract activities
- Issued-for-Construction Design Drawing Issue and constructability reviews
- Contract negotiations
- TasPorts approval processes

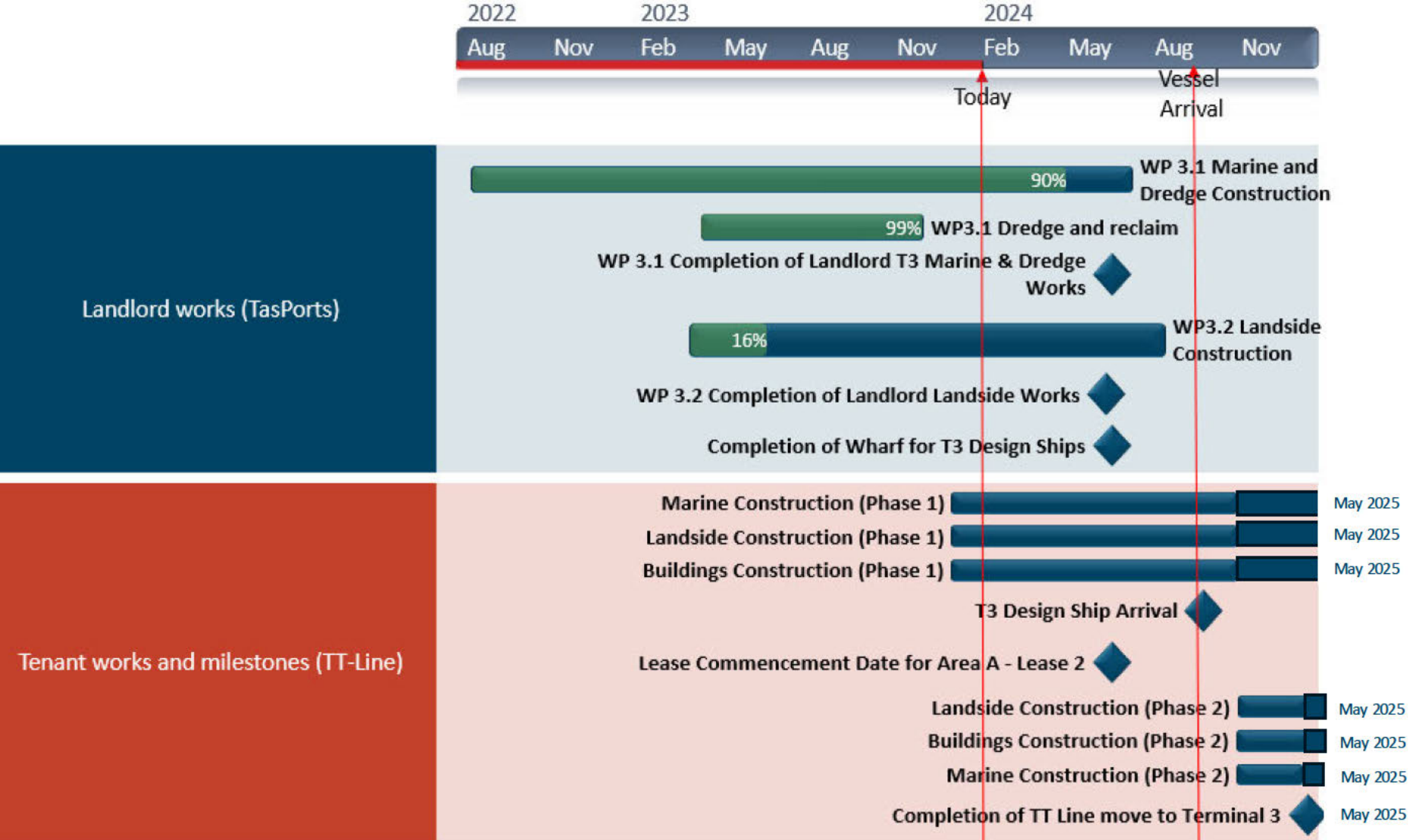
Combined

- Reviewing TT-Line Contractors Management Plans to enable site mobilisation
- Interim construction licence executed to allow further geotechnical investigations
- Regular steering committee and interface meetings held
- Progressed revised staging plans to allow access to areas sooner for TT-Line

Activities planned next month (February 2024):

- Development Application Lodged for Biosecurity
- Continue to support TT-Line with pre-commencement of works obligations under the Agreement for Lease
- Continue construction of the wharf

- Achieve TasPorts works consent to commence site works including approval of TT-Line review documents
- Finalize contract for project with HBJV
- HBJV Procedure developments
- Commence HBJV site mobilization
- Commence HBJV site investigations
- Finalisation of designs for construction
- Continue key procurements including Steel Gantry and Linkspans



Notes – High level schedule based on forecast dates only not to supersede the AFL Master Schedule

Activities under agreement between parties (AFL)	Baseline End Date	Forecast End Date (previous month)	Actual End Date	Comments
TasPorts Milestones				
Completion of Marine and Dredge Works	24/4/24	30/6/24	-	Extension of time entitlement under the Agreement for Lease with TT-Line
Completion of Landlord Landside Works	6/04/24	20/6/24	-	Extension of time entitlement under the Agreement for Lease with TT-Line
TT-Line Milestones				
Marine Package - Construction (Ramp, Linkspan, Spaceframe)	6/05/24	31/05/25	-	Deck 3 only operation option date TBC upon review of Contractor Programme
Landside Package - Construction (Freight Yard & related civils)	6/05/24	31/05/25	-	
Landside Package - Construction (Freight Yard & related civils)	6/05/24	31/05/25	-	
Landside Package - Construction (Passenger Vehicle Entry & Marshalling)	24/6/24	31/05/25	-	
Buildings Package - Construction Temporary Terminal	24/6/24	31/05/25	-	
Marine Package - Construction (Wharf) (Area A)	25/6/24	16/08/24	-	AMU commissioning by 16/08/24
Notes – Stages 4 onwards omitted for clarity; only millstone activities required for operational terminal shown				



QuayLink: Terminal 3



Monthly CEO Report – February 2024



TasPorts

Devonport QuayLink

Activities complete this month (February 2024):

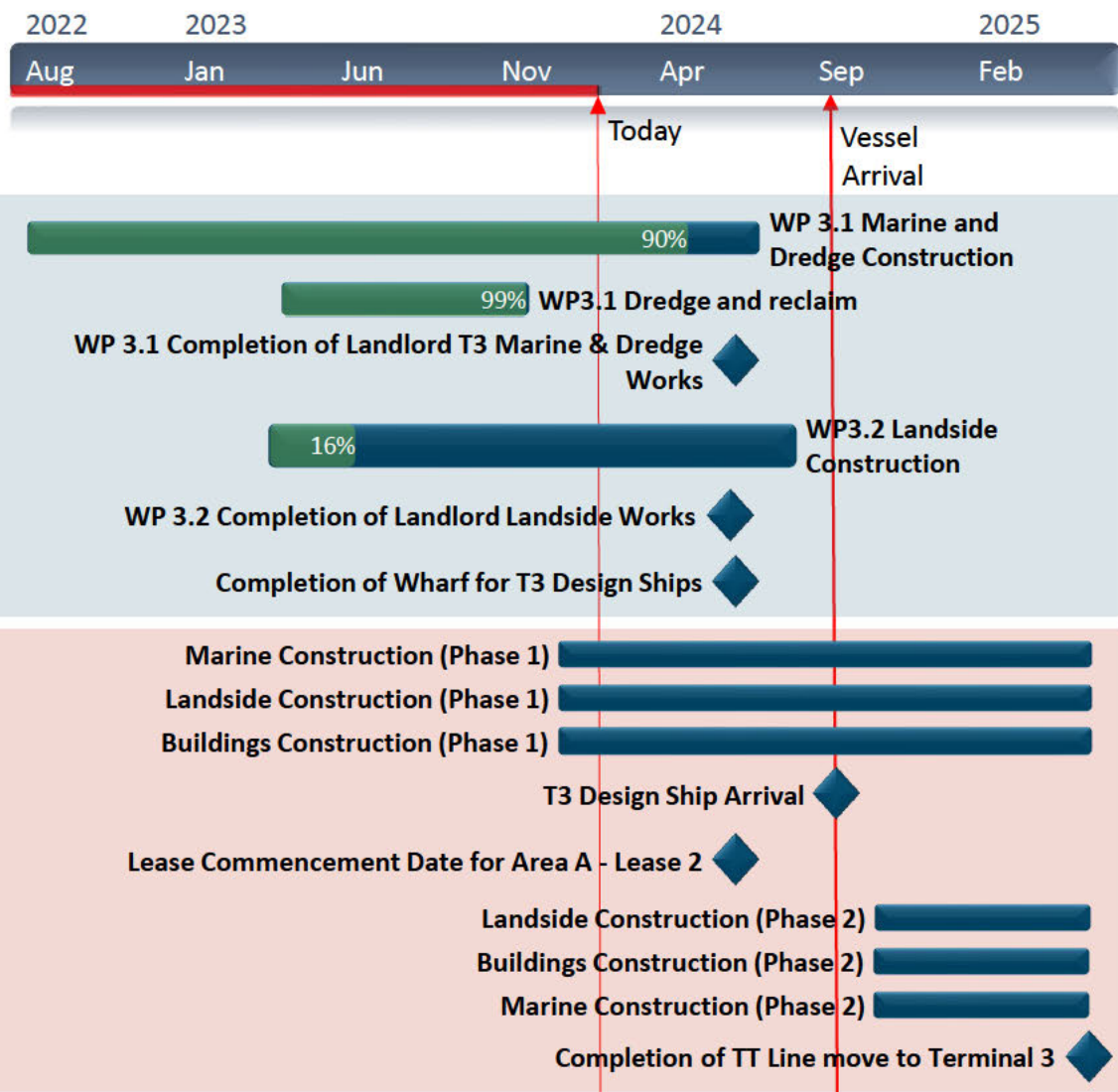
<div></div> <ul style="list-style-type: none">• 4 of 7 fender blocks installed• 95% of all precast now cast• Existing wharf strengthening and scour protection commenced• Biosecurity relocation new site survey complete and design underway	<div></div> <ul style="list-style-type: none">• HBJV Preliminary works progress under Letter of Commitment including Temporary works designs, procurement of key items, site investigations and mobilization preparations• Letter of Commitment issued to progress preliminary contract activities• Issued-for-Construction Design Drawing Issue and constructability reviews• Contract negotiations• TasPorts approval processes
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Combined <ul style="list-style-type: none">• Reviewing TT-Line Contractors Management Plans to enable site mobilisation• Interim construction licence executed to allow further geotechnical investigations• Regular steering committee and interface meetings held• Progressed revised staging plans to allow access to areas sooner for TT-Line• Working with TT-Line on contingency berth options

Activities planned next month (March 2024):

<ul style="list-style-type: none">• Continue to support TT-Line with pre-commencement of works obligations under the Agreement for Lease• Continue construction of the wharf• Ongoing procurement of substations currently being fabricated	<ul style="list-style-type: none">• Achieve TasPorts works consent to commence site works including approval of TT-Line review documents• Finalise contract for project with HBJV• HBJV Procedure developments• Commence HBJV site mobilization• Commence HBJV site investigations• Finalisation of designs for construction• Continue key procurements including Steel Gantry and Linkspans
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Combined <ul style="list-style-type: none">• Integration of construction schedules• Approval of all review documents under AFL• Access to site granted for mobilisation• Finalise staging plans for project



Notes – High level schedule based on forecast dates only not to supersede the AFL Master Schedule

Activities under agreement between parties (AFL)	Baseline End Date	Forecast End Date (previous month)	Actual End Date	Comments
TasPorts Milestones				
Completion of Marine and Dredge Works	24/4/24	30/6/24	-	Extension of time entitlement under the Agreement for Lease with TT-Line
Completion of Landlord Landside Works	6/04/24	20/6/24	-	Extension of time entitlement under the Agreement for Lease with TT-Line
TT-Line Milestones				
Marine Package - Construction (Ramp, Linkspan, Spaceframe)	6/05/24	31/05/25	-	Deck 3 only operation option date TBC upon review of Contractor Programme
Landside Package - Construction (Freight Yard & related civils)	6/05/24	31/05/25	-	
Landside Package - Construction (Freight Yard & related civils)	6/05/24	31/05/25	-	
Landside Package - Construction (Passenger Vehicle Entry & Marshalling)	24/6/24	31/05/25	-	
Buildings Package - Construction Temporary Terminal	24/6/24	31/05/25	-	
Marine Package - Construction (Wharf) (Area A)	25/6/24	16/08/24	-	AMU commissioning by 16/08/24
Notes – Stages 4 onwards omitted for clarity; only millstone activities required for operational terminal shown				



QuayLink: Terminal 3

Monthly CEO Report – March 2024



TasPorts

Devonport QuayLink

Activities complete this month (March 2024):



- All precast elements fabricated
- First wharf deck concrete pour complete
- Works tracking to plan for June 30 completion



- Preliminary works progress under Letter of Commitment including Temporary works designs, procurement of key items, site investigations and mobilization preparations
- Issued-for-Construction Design Drawing Issue and constructability reviews
- Due to significant increase in lump-sum offer for the project that was unable to be validated by TTL or its advisors, HBJV Preferred Tenderer Status has been rescinded – BMD and HBJV to partake in intensive competitive tender process through April for T3 Contract.
- Delivery AMUs into Tasmania

Combined

- Reviewing TT-Line Contractors Management Plans to enable site mobilisation
- Interim construction licence varied to allow site mobilisation and site investigation of TT-Lines contractor
- Regular steering committee and interface meetings held
- Revised project staging plans finalised

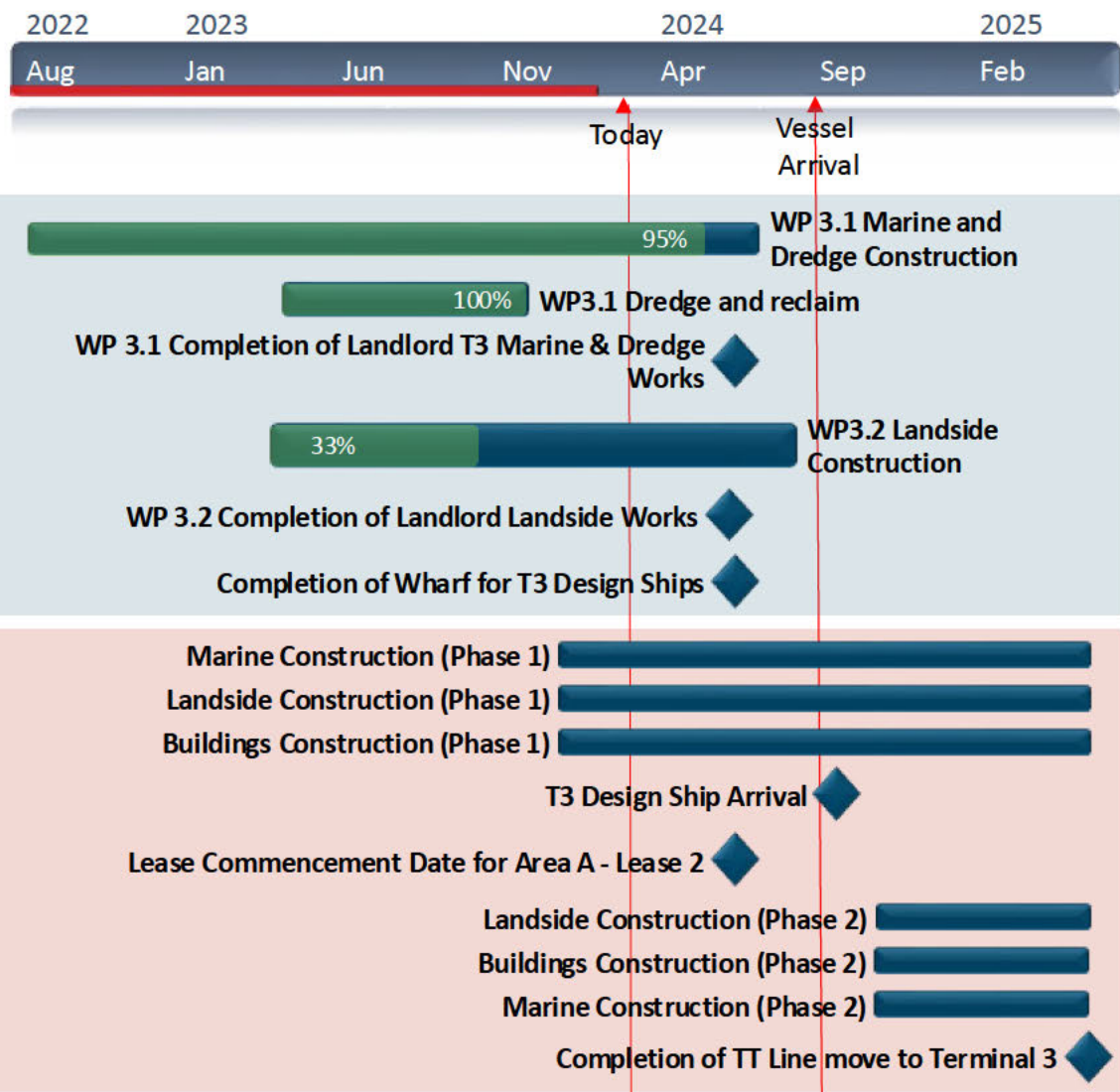
Activities planned next month (April 2024):

- Final barge work to be complete
- Final precast elements placed on wharf
- Second wharf concrete pour
- Development Application Lodged for Biosecurity
- Continue to support TT-Line with pre-commencement of works obligations under the Agreement for Lease
- Continue construction of the wharf

- Complete intensive tender phase through April with BMD and HBJV
- Finalize contract for project
- Finalize approvals required to commence contract works
- Progress site early works with HBJV under Letter of Commtment. Site preparation and mobilization of facilities
- Continue Site investigations
- Continue key long lead time procurements including Steel, Linkspans, Stormwater Systems

Combined

- Integration of construction schedules



Notes – High level schedule based on forecast dates only not to supersede the AFL Master Schedule

Activities under agreement between parties (AFL)	Baseline End Date	Forecast End Date (previous month)	Actual End Date	Comments
TasPorts Milestones				
Completion of Marine and Dredge Works	24/4/24	30/6/24	-	Extension of time entitlement under the Agreement for Lease with TT-Line
Completion of Landlord Landside Works	6/04/24	20/6/24	-	Extension of time entitlement under the Agreement for Lease with TT-Line
TT-Line Milestones				
Marine Package - Construction (Ramp, Linkspan, Spaceframe)	6/05/24	31/05/25	-	Deck 3 only operation option date TBC upon review of Contractor Programme
Landside Package - Construction (Freight Yard & related civils)	6/05/24	31/05/25	-	
Landside Package - Construction (Freight Yard & related civils)	6/05/24	31/05/25	-	
Landside Package - Construction (Passenger Vehicle Entry & Marshalling)	24/6/24	31/05/25	-	
Buildings Package - Construction Temporary Terminal	24/6/24	31/05/25	-	
Marine Package - Construction (Wharf) (Area A)	25/6/24	16/08/24	-	AMU commissioning by 16/08/24
Notes – Stages 4 onwards omitted for clarity; only millstone activities required for operational terminal shown				

Attachment 3

From: Anthony Donald <Anthony.Donald@tasports.com.au>
Sent on: Tuesday, February 27, 2024 9:04:31 PM
To: Ferguson, Michael <Michael.Ferguson@dpac.tas.gov.au>
CC: Steve Maycock <steve.maycock@spiritoftasmania.com.au>; Bernard Dwyer <bernard.dwyer@spiritoftasmania.com.au>
Subject: [EXTERNAL] TasPorts and TT-line schedule summary
Attachments: 6A0000-TASP-0010-CON-RPT Combined TT and TP Report Feb 2024.pdf (358.06 KB)

Good morning Deputy Premier

As requested please see attached schedule summary.

Please note that TT-line are currently reviewing the dates included for the Terminal 3 works and will advise any updates accordingly.

Thank you and kind regards

Anthony Donald

Chief Executive Officer

Anthony.Donald@tasports.com.au

TasPorts | 90-110 Willis Street, Launceston, TAS, 7250



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Please consider the environment before printing this email



QuayLink: Terminal 3

Monthly CEO Report – January 2024



TasPorts

Devonport QuayLink

Activities complete this month (January 2024):



- Placement of first fender block on wharf
- Council approval received to acquire the land for the new biosecurity facility
- Final design hold points released for the wharf



- HBJV Preliminary works progress under Letter of Commitment including Temporary works designs, procurement of key items, site investigations and mobilization preparations
- Letter of Commitment issued to progress preliminary contract activities
- Issued-for-Construction Design Drawing Issue and constructability reviews
- Contract negotiations
- TasPorts approval processes

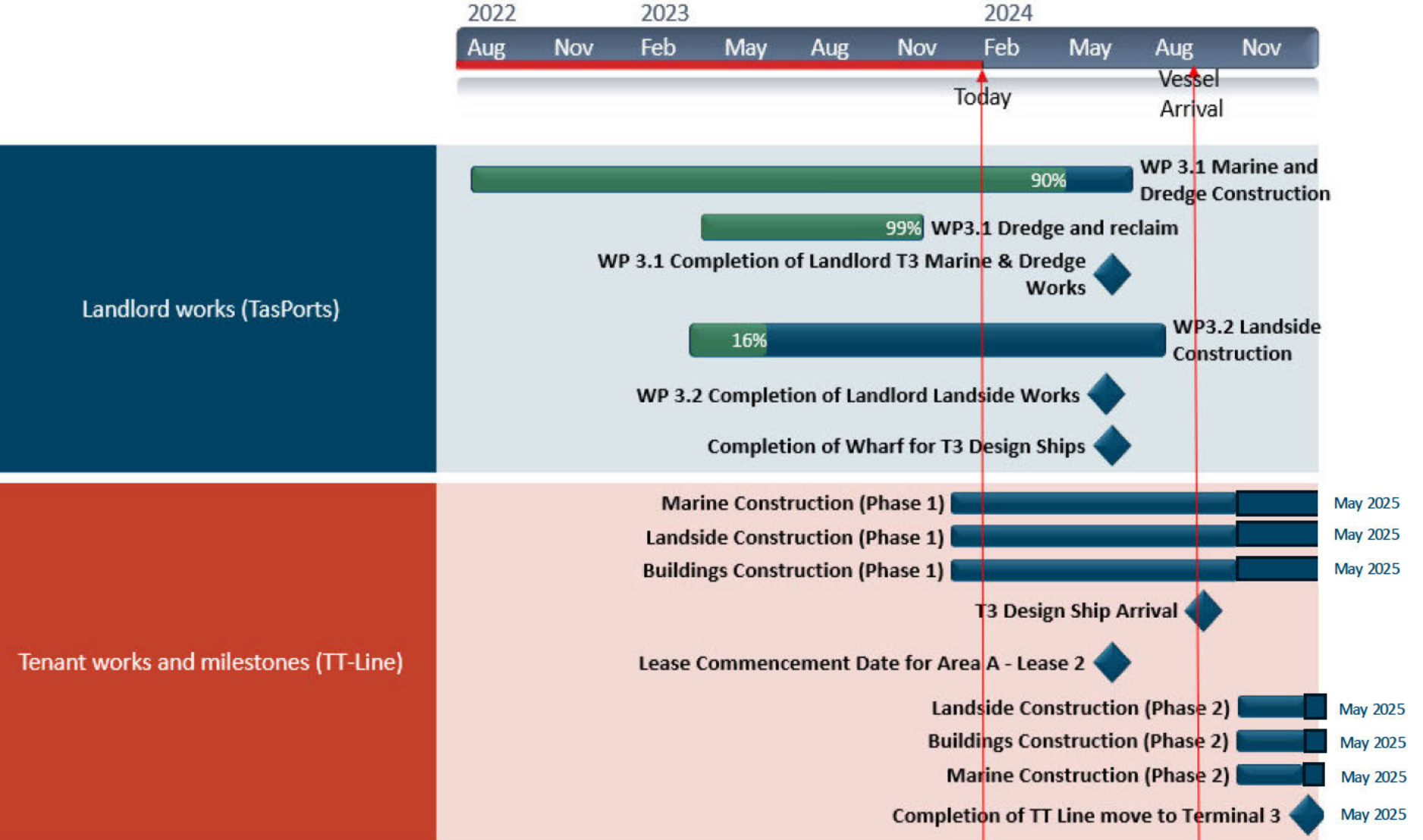
Combined

- Reviewing TT-Line Contractors Management Plans to enable site mobilisation
- Interim construction licence executed to allow further geotechnical investigations
- Regular steering committee and interface meetings held
- Progressed revised staging plans to allow access to areas sooner for TT-Line

Activities planned next month (February 2024):

- Development Application Lodged for Biosecurity
- Continue to support TT-Line with pre-commencement of works obligations under the Agreement for Lease
- Continue construction of the wharf

- Achieve TasPorts works consent to commence site works including approval of TT-Line review documents
- Finalize contract for project with HBJV
- HBJV Procedure developments
- Commence HBJV site mobilization
- Commence HBJV site investigations
- Finalisation of designs for construction
- Continue key procurements including Steel Gantry and Linkspans



Notes – High level schedule based on forecast dates only not to supersede the AFL Master Schedule

Activities under agreement between parties (AFL)	Baseline End Date	Forecast End Date (previous month)	Actual End Date	Comments
TasPorts Milestones				
Completion of Marine and Dredge Works	24/4/24	30/6/24	-	Extension of time entitlement under the Agreement for Lease with TT-Line
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TT-Line Milestones				
Marine Package - Construction (Ramp, Linkspan, Spaceframe)	6/05/24	31/05/25	-	Deck 3 only operation option date TBC upon review of Contractor Programme
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Landside Package - Construction (Freight Yard & related civils)	6/05/24	31/05/25	-	
Landside Package - Construction (Passenger Vehicle Entry & Marshalling)	24/6/24	31/05/25	-	
Buildings Package - Construction Temporary Terminal	24/6/24	31/05/25	-	
Marine Package - Construction (Wharf) (Area A)	25/6/24	16/08/24	-	AMU commissioning by 16/08/24
Notes – Stages 4 onwards omitted for clarity; only millstone activities required for operational terminal shown				

Technical Memorandum

Memo No.	002	Date of Issue	December 01, 2023
Subject	Proposed additional geotechnical investigation (Phase 5) at Devonport	Discipline	Geotechnical
Project Title	Devonport East QuayLink Project	Project No.	30042606
Document No.	30042606-TM-GT-02_[0]	Revision	0
Author	Peter Elson, Principal Engineering Geologist		
Reviewed by	Lee Wei Ong, Principal Geotechnical Engineer	Approved by	Chris Ong
Prepared for	P&M Consultants	Attention to	Venket Naidu
Attachments	Attachment A: Proposed investigation locations		

1. Introduction

SMEC Australia Pty Ltd (SMEC) are currently undertaking the design of geotechnical elements of the proposed redevelopment of the ferry terminal at Berth 3E at Devonport East on behalf of P&M Consultants Pty Ltd. The proposed port development comprises the reclamation/seawall structures, stevedores building, warehouse, office, cold store, terminal building, weighbridge, and inspection shelters as well as light towers. The geotechnical design relevant to the upgrading works includes the following structures:

Marine Side:

- New guide and stern dolphins – piled foundations;
- New linkspan gantry tower dolphins – piled foundations;
- New north linkspan and south ramp entry – piled abutments;
- New 4-lane ramp and transition platform - series of piers on various concrete super-tee beams supported by piled foundations;
- New retaining wall at southern abutment.

Land Side:

- New suspended pedestrian walkway - supported by piers on piled foundation;
- PAX Marshalling and Freight Yard - new retaining walls on eastern and southern perimeter;
- New fire services water tanks;
- Earthworks (cut and fill) and new pavements.

The above referenced structures are shown in planar view in Attachment A. SMEC has previously undertaken a geotechnical site investigation in 2023 to inform the design of the proposed structures, which is documented in the report Devonport East Quaylink Project: Geotechnical Factual Report, Ref. 3007010 Rev 1.

SMEC has also produced a Geotechnical Interpretative Report (GIR) based on the SMEC geotechnical investigation referenced above, as well as three phases of historical geotechnical investigations around the port development area (Phases 1 to 3). The SMEC geotechnical investigation is identified as Phase 4. The GIR is documented in the report Devonport East Quaylink Project: Geotechnical Interpretative Report, Ref. 30042606 Rev 1.

Some of the boreholes that were planned as part of the SMEC geotechnical investigation could not be drilled at the proposed locations as the reclamation works had not progressed to the areas that needed to be accessed at that point in time. In addition, some of the proposed structures are over water, and the previous SMEC investigation scope did not include barge work to access these locations.

In addition, some of the boreholes drilled around the proposed land side perimeter retaining wall have identified soft soils at depth, that may present settlement or bearing capacity issues for the retaining walls. At the time of issue of this memorandum, further works are ongoing to better understand the risks associated with the identification of soft soils beneath the retaining walls.

A meeting was held between P&M Consultants Pty Ltd (P&M) and SMEC on 16 November 2023, in which the scope of additional investigations was discussed. A second meeting was held between P&M and SMEC on the 17 November 2023 in which the scope of boreholes was refined. The purpose of this memorandum is to outline additional proposed geotechnical investigations to:

- Identify the geotechnical conditions to inform pile design and construction at the overwater locations and locations that could not previously be accessed.
- Cone Penetration Tests (CPT) around the footprint of the land-based retaining wall.

The additional geotechnical investigation will be referred to as Phase 5.

It is understood that the additional geotechnical investigation will be included in the technical specification as part of the preliminaries for the piling works.

2. Scope of additional geotechnical investigations (Phase 5)

The proposed scope of additional geotechnical investigations to be undertaken by the contractor in advance of construction are outlined below in Table 1. The proposed borehole locations are shown overlain on the structural elements in Attachment A. Note that pre-drilling will likely be required at all CPT locations through the existing fill gravel material.

Table 1: Scope of additional geotechnical investigations (Phase 5)

Structural element	Type of investigation	Investigation ID	Easting	Northing	Approx. depth
Stern dolphin	Borehole	BH-5-01	446879.55	5440474.19	35 m
Gantry	Borehole	BH-5-02	446883.26	5440462.67	35 m
Abutment	Borehole	BH-5-03	446886.04	5440452.96	35 m
Pier 1	Borehole	BH-5-04	446888.32	5440433.06	35 m
Stern dolphin	Borehole	BH-5-05	446913.49	5440478.00	35 m
Gantry	Borehole	BH-5-06	446912.42	5440465.94	35 m
Bollard	Borehole	BH-5-07	446931.72	5440457.49	25 m
Guide dolphin	Borehole	BH-5-08	446915.55	5440514.33	35 m
Bollard	Borehole	BH-5-09	446947.21	5440522.11	25 m

Structural element	Type of investigation	Investigation ID	Easting	Northing	Approx. depth
Retaining wall	CPT	CPT-5-01	447091.47	5440134.87	10 m or refusal (pre-drilling likely required through fill)
Retaining wall	CPT	CPT-5-02	447106.053	5440148.611	10 m or refusal (pre-drilling likely required through fill)
Retaining wall	CPT	CPT-5-03	447128.351	5440144.736	10 m or refusal (pre-drilling likely required through fill)
Retaining wall	CPT	CPT-5-04	447144.579	5440141.815	10 m or refusal (pre-drilling likely required through fill)
Retaining wall	CPT	CPT-5-05	447156.815	5440158.807	10 m or refusal (pre-drilling likely required through fill)
Retaining wall	CPT	CPT-5-06	447153.449	5440182.737	10 m or refusal (pre-drilling likely required through fill)
Retaining wall	CPT	CPT-5-07	447145.601	5440206.796	10 m or refusal (pre-drilling likely required through fill)
Retaining wall	CPT	CPT-5-08	447130.825	5440240.81	10 m or refusal (pre-drilling likely required through fill)
Retaining wall	CPT	CPT-5-09	447116.185	5440272.37	10 m or refusal (pre-drilling likely required through fill)
Retaining wall	CPT	CPT-5-10	447101.874	5440301.837	10 m or refusal (pre-drilling likely required through fill)
Retaining wall	CPT	CPT-5-11	447099.966	5440351.944	10 m or refusal (pre-drilling likely required through fill)
Retaining wall	CPT	CPT-5-12	447073.804	5440360.743	10 m or refusal (pre-drilling likely required through fill)
Retaining wall	CPT	CPT-5-13	447039.935	5440428.039	10 m or refusal (pre-drilling likely required through fill)

Structural element	Type of investigation	Investigation ID	Easting	Northing	Approx. depth
					required through fill)
Retaining wall	CPT	CPT-5-14	447033.066	5440487.214	10 m or refusal (pre-drilling likely required through fill)
Retaining wall	CPT	CPT-5-15	447000.116	5440501.957	10 m or refusal (pre-drilling likely required through fill)

In addition, provision shall be made for geotechnical laboratory testing for rock samples obtained from the boreholes. Geotechnical laboratory testing shall include:

- Unconfined compressive strength (UCS) tests, approximately three (3) per borehole
- Point Load Index (PLI) strength testing, approximately ten (10) per borehole
- Allowance for classification and strength testing on soil samples, depending on the type and amount of soil samples recovered.
- It is recommended to allow a provisional sum of \$25,000 for test scheduling of UCS, PLI and soil samples after receipt and review of the borehole logs.

3. Requirements for geotechnical investigations

3.1 Contractor's Responsibilities

It is envisaged that the piling works and associated preliminaries will be organised by the principal contractor (Principal) managing the project site. Specialist geotechnical investigation contractors (GI Contractor) shall be engaged to undertake the additional geotechnical investigation as required. The Principal and GI Contractor shall identify and propose a suitable investigation methodology for both the overwater and land-based investigations.

At least three weeks prior to the start date of the fieldwork, the GI Contractor shall submit to the Principal the following documentation for review:

- CV's of proposed staff to undertake the works.
- Programme for the works, inclusive of fieldworks mobilisation of crew, equipment set up/down, and reporting.
- Proposed methodology including access and logistic planning to mobilise to/around site.
- Details of welfare facilities to be provided.
- SWMS and risk assessment for providing safe access to the investigation locations.
- SWMS and risk assessment for investigation works.
- SWMS and risk assessment outlining sampling procedure (surface and at depth).
- Equipment proposed to undertake the geotechnical investigation and sampling.
- Proposed methods of surveying investigation locations.
- Proposed methods and risk assessments for quality procedures, preservation, storage (if required) and transportation of samples within site as well as to the nominated laboratories.

- Proposed methods of complying with relevant Health and Safety legislation, considering the investigation is in an operational port area including necessary licences and permits to access and operate in the port.
- Prior to testing the samples in the laboratory, a proposed laboratory test schedule shall be submitted to the Principal's Designer for review and approval.

3.2 Existing Services

A Before You Dig Australia (BYDA) utility search for information on underground services is required at each proposed investigation location. BYDA utility searches do not typically show all services within the port area and the Principal is required to submit requests for service plans to relevant port authorities.

The Principal shall satisfy themselves with regards to the location of services that have the potential to impact the investigation.

3.3 Site Walkover and Service Location

A site walkover should be undertaken by the Principal and GI Contractor during planning stages of the Phase 5 geotechnical investigation to assess site access and general safety constraints. The walkover shall be undertaken in conjunction with a representative of the port authority and with other relevant stakeholders as required. More than one site walkover may be required.

Service location using an experienced and qualified service location contractor shall be performed at each of the investigation locations to reduce the risk of damaging underground services. Allowance should be made for non-destructive digging (NDD) where required. If necessary, an underground service scan overwater or seabed should be considered by the Principal to clear the borehole locations prior to commencing the drilling works.

3.4 Approvals and Permits from relevant Agencies and Stakeholders

The GI Contractor shall be responsible for obtaining approvals and relevant permits from relevant port authorities or stakeholders to undertake the geotechnical investigation.

3.5 Soil and Rock Logging

Soil and rock logging of the borehole locations shall be carried out under the full-time presence and supervision of an experienced engineering geologist or geotechnical engineer in accordance with AS1726: Geotechnical Site Investigations (2017).

3.6 Sampling and In-Situ Testing

Soil and rock sampling for geotechnical laboratory testing shall be undertaken in accordance with AS1726 (2017): Geotechnical Site Investigations. Disturbed and undisturbed samples will be required for the geotechnical testing to be confirmed.

It is envisaged the following samples will be obtained from boreholes and test pits:

- Small and bulk disturbed samples.
- Thin-walled open tube undisturbed samples (UT100 or equivalent) in cohesive strata.
- Small and disturbed sample from split spoon SPT.
- Rotary core samples in rock.

In-situ testing in boreholes shall comprise Standard Penetration Tests (SPT) using a split spoon sampler in soil materials. Alternating SPTs and undisturbed/disturbed samples shall be taken at 1m intervals. SPT may be required in extremely weathered rock if core recovery is poor.

All core samples shall be suitably packed in core boxes and photographed before transporting to the laboratory for testing. Core boxes shall be stored for at least 6 months prior to approved to be discarded by the Principal. Refer Section 3.10 for core photograph requirements.

3.7 Cone Penetration Testing (CPT)

Cone Penetration Tests shall be undertaken in accordance with AS 1289.6.5.1 (1999): Methods of testing soils for engineering purposes soil strength and consolidation tests - Determination of the static cone penetration resistance of a soil - Field test using a mechanical and electrical cone or friction-cone penetrometer.

3.8 Laboratory Testing

Geotechnical laboratory testing shall be undertaken in accordance with AS1289 (2003): Methods of testing soils for engineering purposes. The testing shall be undertaken at an approved NATA registered laboratory.

3.9 Survey Of Investigation Locations

All geotechnical investigation locations shall be surveyed to the following standards:

- All levels in Australian Height Datum (AHD) with an accuracy of 3 decimal places.
- Survey co-ordinates must utilise MGA grid co-ordinates to 3 decimal places, prefixes with 'E' or 'N'.
- Borehole log and CPT log levels shall be reported in Chart Datum (CD).

3.10 Core Boxing and Photographs

The recovered core shall be identified, handled and stored properly so that the samples are preserved to representative of the rock recovered from site. Samples shall be delivered to the laboratory as soon as practical to minimise any changes that may occur to the samples.

Each core box shall be photographed before removal from the field with a suitable identification board showing the job number, location, borehole number and depth of coring. The photograph may also have a colour spectrum chart and gradation scale shown.

All core run markers, core loss indicators should be in place and correctly orientated such that they can be read in the photograph. Any “no core” or core loss sections and any depth ranges from which pieces of core samples are removed from the box for laboratory testing shall be shown on a spacer marked with appropriate labelling.

The core should be wet prior to photography to highlight the soil/rock structures. Core photographs shall be taken using digital cameras with good quality and camera resolution of minimum 5 megapixels.

This photography shall be carried out in controlled conditions such that the colour temperature of the lighting can be maintained at a constant level. Photographs shall be in focus with colour charts and core box labels clearly set out.

3.11 Reporting

Due to the timing of the investigation in relation to design and construction of the piles for the marine structures, information from the factual investigation will be required from the Principal as it becomes available. The timing and methodology for transfer of information will be agreed by the Designer and the GI Contractor prior to mobilisation.

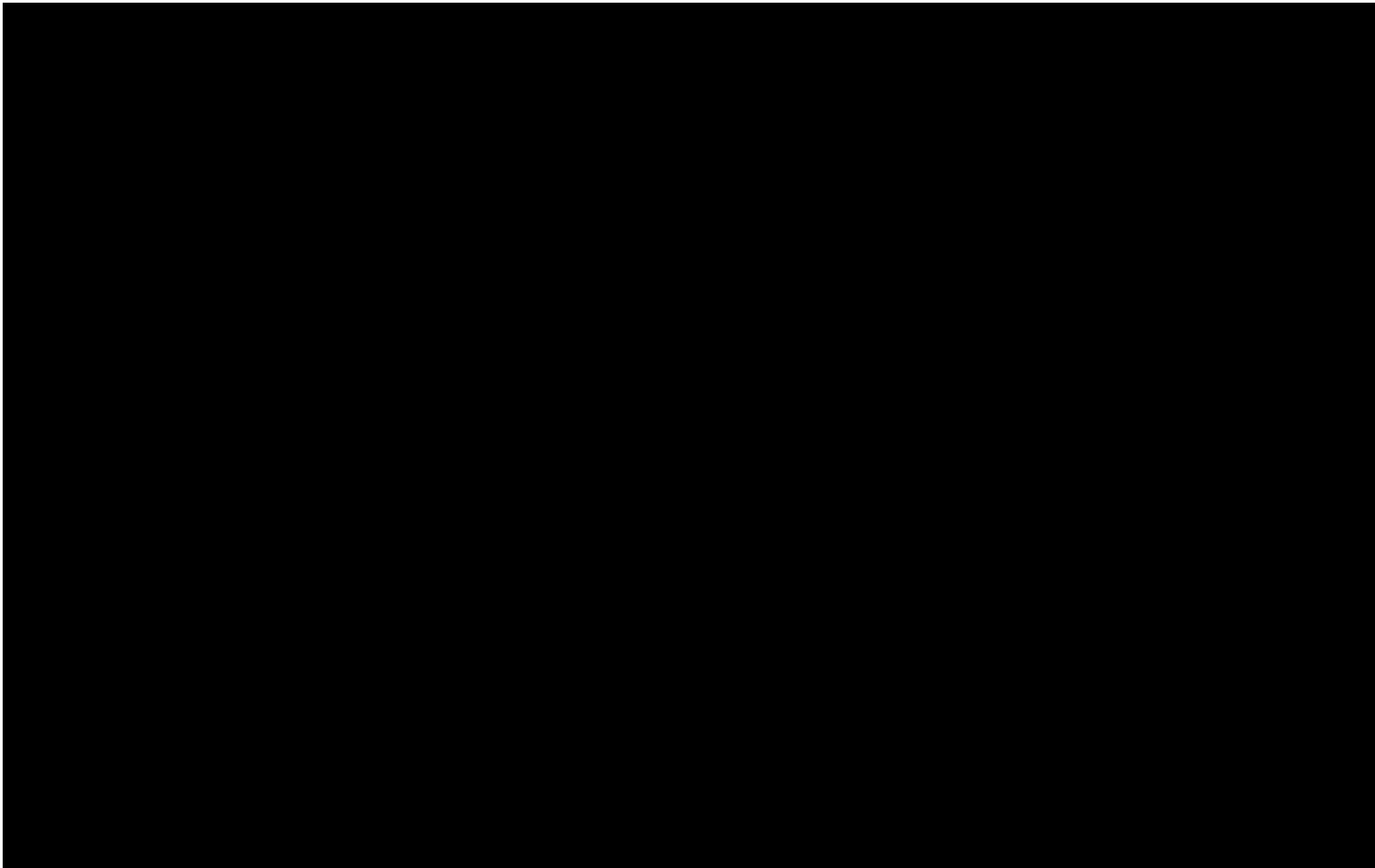
The GI Contractor shall supply the compiled results of the investigation in a draft factual report one month following the completion of the fieldwork.

The report shall include, but not be limited to the following:

- a) Summary of preliminary works and fieldwork planning such as service location, HSE documentation, methodology, general site walkover and photographs including a list and specification of all plant or equipment and test methods utilized.

- b) A general arrangement plan showing the location and reduced levels of all investigation locations, i.e. boreholes, CPT, properly drawn to scale and dimensioned with reference to the established gridlines, with topographical sections;
- c) Rock total core recovery (TCR) and rock quality designation (RQD), core photographs;
- d) Borehole logs shall be entered and presented using recognised software such as gINT or OpenGround® including information on drill/coring type, penetration rate, materials description including rock defects, moisture conditions, consistency or density, soil/rock in-situ test SPT, sample depths, soil/rock strength, stratigraphy, groundwater/seepage/inflows etc.
- e) Raw CPT data and relevant test input data;
- f) Results of all laboratory testing in tabulated forms with laboratory test certificate appended.

Attachment 5



Attachment 6

