

Report under section 87F of the Resource Management Act 1991 on a notified resource consent application by Panuku Development Auckland Limited for consent for the construction, occupation, use and maintenance of permanent and temporary infrastructure and undertaking of activities within the coastal marine area and on land, associated with the America's Cup

To: Panuku Development Auckland Limited (“**the applicant**”)

From: Nicola Broadbent – Reporting Planner

Auckland Council Reference Numbers: BUN60318372

LUC60318373: Land use consent

DIS60318376: Discharge of contaminants into land and water

WAT60318377: Groundwater diversion

DIS60318378: Diversion and discharge of stormwater runoff

CST60318379: Structures within the coastal marine area

CST60318400: Occupation of the coastal marine area

CST60318401: Capital works dredging within the coastal marine area

CST60318402: Activities within the coastal marine area

DIS60319096: Discharge of contaminants into air

DIS60320903: Discharge – Industrial or Trade Activity

DIS60321336: Discharge of Contaminants

Proposal: This report relates to the following applications (collectively referred to in this report as the “**application**” or the “**proposal**”):

- (i) A land use application for the establishment of structures associated with the America's Cup and also for the event itself. Consent is also sought for the associated land disturbance activities, including earthworks and tree removal, and also infringement of the noise and vibration standards.
- (ii) An application for the discharge of contaminants to land and water as a result of storage of the dredged material and potential use in construction.
- (iii) An application for the diversion of ground water associated with ground stabilisation works.
- (iv) An application for the diversion and discharge of stormwater runoff associated with the impervious areas for Bases C-G.
- (v) An application for structures within the coastal marine area including infill deck areas to

Wynyard Wharf, a 74m extension to Hobson Wharf, four new breakwaters, and wave panels on Hobson Wharf (including the extension) and Halsey Wharf.

- (vi) An application for the occupation of the common marine and coastal area in association with the aforementioned structures.
- (vii) An application for capital works dredging within the coastal marine area to increase navigable depths for the boats.
- (viii) An application for the America's Cup events to be held within the coastal marine area.
- (ix) An application for the discharge of contaminants into air associated with storage of the dredged materials and use of cement during construction.
- (x) An application for the discharge of industrial or trade activities.
- (xi) An application for other discharges of contaminants.
- (xii) An application for disturbance of contaminated land under the NES regulations

EXPLANATORY NOTE:

This report is prepared under section 87F of the Resource Management Act 1991 (**RMA**). It sets out the advice of the reporting planner, and is yet to be considered by the consent authority responsible for determining the application. The reporting planner's recommendation is not the decision on the application. A decision will only be made after the Court has conducted a hearing on the application.

While the RMA is silent as to whether reports prepared under section 87F should include a recommendation as to whether consent should be granted or declined, it is considered appropriate to provide a recommendation to assist the Court as the decision-maker. Having considered the proposal against all the relevant statutory criteria, it is recommended by the reporting planner that the application be granted consent subject to conditions. The reasons for the recommendation are set out in this report.

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1. Application and property details

Site Address:	11-99 Brigham Street 1 Brigham Street 9 Brigham Street 8-34 Brigham Street 51E Brigham Street 58 Brigham Street 90 Brigham Street 49-63 Brigham Street 65-75 Brigham Street 37-55 Madden Street 141-177 Halsey Street 155-161 Halsey Street 220 Quay Street 149-159 & 161-173 Quay Street 149 Quay Street
Applicant:	Panuku Development Auckland Ltd
Legal description:	Part Lot 37 DP 131568 and PT Harbour WAITEMATA Lot 36 DP 131567 Lot 1 DP 119658 Lot 4 DP 119658 Lot 45-48 DP 27998 Lot 49-58 DP 27338 SEC 4 SO 415995 Lot 2 DP 119658 SEC 5 SO 415995 SEC 10 SO 415995 SEC 6 SO 415995 SEC 8 SO 415995 SEC 9 SO 415995 Lot 3 DP 74831 Lot 2 DP 74831 Lot 2 DP 25871 Lot 3 DP 25871 Lot 4 BLK II DP 25871 Lot 1 DP 25871 Lot 7 BLK II Deeds Reg 226 Lot 8 BLK II Deeds Reg 226

Lot 9 BLK II Deeds Reg 226

Lot 10 BLK II Deeds Reg 226

Lot 11 BLK II Deeds Reg 226

Lot 1 BLK II Deeds Reg 226

Lot 2 BLK II

Section 5 SO 427663

Section 3 SO 427663

Section 1 SO 427663

Section 1 SO 404153

Part Lot 34 DP 131567

Lot 1 DP 436625

Lot 2 DP 436625

Lot 3 DP 436625

Lot 1 DP 338555

Lot 2 DP 338555

Lot 4 DP 153316

Lot 3 DP 153316

Lot 1 DP 179758

Copies of the Certificate of Titles are contained in Appendix Three of Volume One of the Application, April 2018.

NZTM map reference:

mE1756965 mN5921502

Site area:

Approximately 26 hectares

Auckland Unitary Plan (Operative in part)

Zoning and precinct:

Business City Centre Zone

General Coastal Marine Zone

Wynyard Precinct (sub-precincts E, F, G and the CMA)

Viaduct Harbour Precinct (sub-precincts A, B and the CMA)

Overlays, controls, special features, designations, etc:

Natural Heritage: Regionally Significant Volcanic Viewshafts and Height Sensitive Areas Overlay – E10, Mount Eden, Viewshafts

Controls: Coastal Inundation 1 per cent AEP Plus 1m control – 1m sea level rise

Controls: Macroinvertebrate Community Index

Designation: 505 Public Open Space (Auckland Council)

Designation: 506 Road and public open space - Gateway Plaza (Auckland Council)

Designation: 509 Public Open Space (Auckland Council)

Designation: 510 Public open space (Auckland Council)

Designation: 512 Public open space/road (Auckland Council)

2. The Proposal

2.1. Overview of the Proposal

2.1.1. The proposal is detailed in section 5 of the Assessment of Environmental Effects (**AEE**) dated 13 April 2018¹. The application seeks consent for the establishment of infrastructure which will support the America's Cup 36 (**AC36**) defence, the event itself, and any subsequent defender races within the next ten years, and for associated regatta and challenger series.

2.1.2. The supporting infrastructure includes the following elements:

- A 74m extension to Hobson Wharf which will contain a syndicate base building (Base B) which will have a life span of ten years, at which point the building will be removed. The building will be approximately 15 metres in height and is a double base (two racing vessels) that can accommodate up to 110 staff and 300 guests. To the south of this building will be an area of hardstanding adjoining the water-space where berthage will occur for boats associated with the operation of this base.
- Four breakwaters to achieve tranquil water conditions for the race boats, with an 81m breakwater east of Wynyard Wharf, a breakwater attached to Halsey Wharf which extends initially 39m to the north of Halsey Wharf and then extends 84m to the north-west, a 35m breakwater east of Hobson Wharf and a 42m breakwater to the south of Hobson Wharf.
- Wave panels are to be installed on to the breakwaters and on Hobson Wharf, including the proposed extension, and Halsey Wharf.
- Deck infills are to be inserted over the water-space between Wynyard Wharf and Brigham Street. 50% of the infill will be removed at the end of the ten year consent duration. The infill, along with the stopping of Brigham Street (which is to occur outside of this resource consent application) is to accommodate five syndicate base buildings. These bases are identified within the application as being Bases C-G and will consist of two double bases (Bases C and D) and three single bases (Bases E-G). Each building will be approximately 15m in height and will be served by an area of hardstand to the east adjoining the water-space. Vehicle access will be accommodated via 6m wide lanes situated between Bases D and E and Bases F and G. The double bases will accommodate a work force of up to 110 people whereas the single bases will accommodate up to 70 staff. During the events, the double bases will accommodate up to 300 guests, and the single bases up to 100 guests.
- The Emirates Team New Zealand (**ETNZ**) base, Base A, is to be housed in the existing Viaduct Event Centre (**VEC**). To accommodate the operational needs of ETNZ the existing public access ramp along the eastern side of the building is to be removed, with a lift installed on the western side of the building to provide access to the public viewing deck. Modifications to the eastern façade of the building will also occur to construct new doors appropriate for use as a base. A mezzanine floor at the northern end of the building will also be installed for a sail loft. The base is expected to accommodate 110 staff and approximately 500 guests during the event phase. The wharf deck to the east of the building will be utilised for access to the adjoining water-space and will also incorporate any parking of associated vehicles. Public access to this area will be restricted during event periods.

¹ Application Document 4.

- 2.1.3. Construction will occur over a 19-21 month period with construction activities to occur 24 hours a day, 6/7 days a week. The number of construction workers involved with the project is expected to average between 35 to 190 staff, with short term peaks where up to 290 staff will be engaged. The construction details have been described in full within the applicant's Physical Infrastructure Technical Report², however to summarise the works will involve the following:
- Establishment of construction site areas.
 - Construction of the new wharf and breakwater structures.
 - Repair and strengthening of Wynyard Wharf and the existing Wynyard Point seawalls.
 - Dredging of 87,000m³ (including material from bored pile holes) over a 5-7 month period within the Wynyard Wharf South water-space, the Outer Viaduct Harbour and the Viaduct Harbour access channel.
 - Clearance of Wynyard Point with the installation of a hardstand sealed area to provide a building platform for Bases C-G, without the need for remediating the underlying contaminated land at this point in time.
 - Earthworks within the Wynyard Point will extend over an area of 23,100m² with a volume of 10,607m³ pertaining to paved surfaces, landscaped areas and building foundations.
 - Within the subject area, a tree survey identifies 30 individual street trees, one private tree and one group of planted native vegetation. Seven of the street trees (including three on Brigham Street and four on Hamer Street) and one private tree (located on land identified as 90 Brigham Road) will be removed to necessitate the development.
- 2.1.4. The event period associated with AC36 will take place over 6 months, including the provision for pack in and pack out for related infrastructure, commencing in December 2020 and ending in May 2021. The event period will incorporate a challenger series and regatta which includes J-class yachts racing preceding the main event. Raceboats and support craft will be accommodated in the water-space immediately adjoining the bases and provision will also be made for visiting superyachts and J-Class yachts. During the event period there will be associated activities both on land and in the water and including entertainment facilities throughout the 6 month event period. Consent is sought for a ten year period for the events to accommodate any future defending of the cup by ETNZ and a ten year consent period enables subsequent challenges within a two to three year time frame following the completion of AC36.
- 2.1.5. Following the ten year consent period, syndicate Bases B-G will be removed and the VEC building reverted back to its original condition and use as an events centre. The application notes the following legacy benefits arising from the proposed development³:
- Removal of bulk liquid operators from the southern part of Wynyard Wharf.
 - A 74 metre extension to Hobson Wharf for public use.
 - An extension to the waterfront pedestrian network around Hobson and Halsey Wharves and breakwaters.
 - New sheltered water-space to enable water-based activities to occur.

² Document 9 of the application (America's Cup Wynyard Hobson Physical Infrastructure Technical Report, prepared by Beca, dated April 2018).

³ Legacy Report, Document 30 the application, page 2.

- An upgrade to the Wynyard Wharf and sea wall.

2.2. Supporting material submitted by applicant

- 2.2.1. The application comprises Documents 1 to 33, together with drawings DS1 to DS5.
- 2.2.2. Documents 9 to 29 contain the technical reports submitted with the application. The applicant has also provided a draft set of proposed conditions (Document 7).
- 2.2.3. In addition to the application documents lodged on 13 April 2018, the Council has received several responses from the applicant to section 92 requests, as detailed in section 3.3 below.

3. Background

3.1. Planning History

- 3.1.1. Given the (approximately) 26 hectare area the subject site encompasses, there is an extensive consent history relating to activities and development both within the CMA and on land, which is summarised at section 4.3 of the AEE and in Document 32 of the application.
- 3.1.2. The comprehensive record of previous consents contained in Document 32 lists, among other consents, the resource consent for the “Marine Events Centre” (i.e. the VEC), granted by the Auckland Regional Council in 2009⁴. The AEE clarifies that the consent to use the VEC as a syndicate base will sit as an additional / overlapping consent, alongside the existing VEC consent⁵.

Previous Applications

- 3.1.3. Previously, on 15 January 2018, the applicant lodged a resource consent application for a different scheme in relation to the America’s Cup 36 event (**Previous AC36 Scheme**)⁶, together with a separate but related application for the Ferry and Fishing Industry Relocation Facility (**FFIRF**)⁷. The applications for both the Previous AC36 Scheme and the FFIRF went through the public notification phase of the consenting process, however the application for the Previous AC36 Scheme has subsequently been withdrawn upon the acceptance of this application for processing. At the time of writing this report the FFIRF remains ‘on hold’ at the request of the applicant.
- 3.1.4. The main difference between the Wynyard Hobson proposal and the Previous AC36 Scheme is that the Wynyard Hobson proposal has greater emphasis on land-based development at Wynyard Point. The Previous AC36 Scheme consisted of an extension to Halsey Wharf to accommodate four syndicate bases. A wharf extension to Halsey Wharf is no longer required as this development can occur on Wynyard Point south, following the removal of the bulk liquid industries currently in operation. The existing VEC is to be repurposed as ETNZ’s syndicate base (Base A). The Wynyard Hobson proposal retains a base (Base B) on an extension to Hobson Wharf. An overall reduction in the number of syndicate bases is proposed, with the 8 bases proposed in the Previous AC36 Scheme now reduced to 7 bases in the new application.

⁴ Document 32, Consent History (Regional), page 3, consent number 35856.

⁵ AEE, section 3.2, page 16.

⁶ Council reference number BUN60313877.

⁷ Council reference number BUN60313923.

- 3.1.5. A total of 203 submissions were received on the Previous AC36 Scheme⁸. Of these 203 submissions, 102 submissions were in support (3 of which were conditional support), 90 submissions were in opposition and 11 submissions were neutral.
- 3.1.6. Although the submissions on the Previous AC36 Scheme are not to be treated as submissions on the new application (the latter being a fresh resource consent application), I have nonetheless undertaken a review of those previous submissions for background / comparison purposes, the outcome of which I summarise briefly below.
- 3.1.7. The following list is a summary of the issues raised in submissions in opposition to the Previous AC36 Scheme:
- a) The further extension of structures into the water-space
 - b) Visual effects
 - c) Traffic effects
 - d) Lack of consideration given to alternative schemes, particularly those that do not require further intrusion into the water-space
 - e) Noise effects
 - f) Ten years is not considered a 'temporary' period as referred to in the application
 - g) The proposal is not in keeping with the existing planning framework and also the long term plans and vision for this area of the waterfront
 - h) Enclosure and separation of the Viaduct Basin from the Waitemata Harbour
 - i) Construction related effects, including disruption to businesses, noise, vibration and traffic
 - j) Lack of public access and pedestrian connectivity
 - k) Cost to the public
 - l) Lack of consultation and meaningful engagement
 - m) Effects on the character of the area, notably if the fishing industry is relocated which creates a working environment and adds to the character of the area
 - n) Lack of consideration of cultural and heritage effects
 - o) Dredging
 - p) Sea change
 - q) Biodiversity
 - r) Lack of information contained within the application
 - s) Omission of residents groups/businesses from the conditions regarding management plans.

⁸ For completeness, I note that 78 submissions were received on the FFIRF application.

3.1.8. The following list is a summary of the issues raised in submissions in support of the Previous AC36 Scheme:

- a) Enhanced use of the existing water-space
- b) Improvement to the overall area
- c) Greater provision for the berthing of superyachts
- d) Economic benefits to the city and country
- e) The event is too important and we do not want to lose it to another venue
- f) Practical option
- g) Bases are within close proximity to each other to create a village atmosphere
- h) Achievable in terms of time and costs
- i) Wharf extensions add value
- j) Legacy benefits arising from an enhanced wharf area
- k) Employment opportunities
- l) Promotes the New Zealand marine industry
- m) Bases should be permanent structures
- n) Alternative schemes are poorly thought out
- o) There needs to be manoeuvring space for the Spirit of New Zealand vessel
- p) Lack of assessment relating to spectator and traffic congestion on Princes Wharf
- q) Traffic and transport concerns
- r) Concerns regarding the costs and potential waste with the application to date
- s) Lack of detail around legacy infrastructure
- t) Inclusion of parties in relation to management plans
- u) Potential delays to ferry services.

3.1.9. The issues raised in the neutral submissions were as follows:

- a) More time should be given to submitters to consider all schemes
- b) Conditions to be imposed to protect Vector's assets
- c) Continued and efficient operation of the bus depot at 100 Halsey Street
- d) The event should be sustainable and leave a legacy
- e) Transportation and traffic concerns
- f) Pedestrian safety during the event
- g) Application too vague in relation to tree removal
- h) Supports development of a new facility and use of temporary structures

- i) Consent should be granted to enable the event but ongoing discussions should occur to explore options.

3.1.10. The new Wynyard Hobson scheme as proposed within this application reduces wharf extensions into the water-space and associated visual effects. In particular, the previous proposal for a 74 metre extension to Halsey Wharf, to accommodate four 15 metre high syndicate base buildings, is not being pursued. Similar issues to those listed above have been raised with the submissions received in relation to this application, which are addressed in detail within this report.

3.2. **Section 95A and Section 87E Decisions, RMA**

3.2.1. The application was received by the Council on 13 April 2018.

3.2.2. The applicant requested that the application be publicly notified. The application was publicly notified on 30 April 2018. The submission period closed on 28 May 2018. 83 submissions were received on the application (33 in opposition, 45 in support (including 11 which are conditional support), and 5 neutral). I discuss the submissions further in sections 6.2, 6.3, 9 and 15 of this report.

3.2.3. On 17 April 2018, the applicant requested under section 87D(1) of the RMA that the Council allow the application to be determined by the Environment Court.

3.2.4. The Council granted the request by the applicant for direct referral of the application to the Environment Court pursuant to section 87E of the RMA on 7 May 2018.

3.3. **Section 92 requests for further information and responses given**

3.3.1. Prior to notification no information requests pursuant to section 92 of the RMA were made. An informal request however was made on 27 April 2018 with respect to queries in relation to transport, stormwater, lighting, heritage and air discharge as summarised below:

- An update to the Traffic and Transport Technical report to take into account 2017 traffic data.
- Clarification on the expected ownership of the Northern Connector Road.
- Details around the assumptions made with regard to the routing of construction traffic.
- Impact on the wider operation and management of the Waitemata Harbour.
- Clarification on the status of existing stormwater infrastructure within the Brigham Street area.
- Further details on the stormwater treatment devices including monitoring, and extent of impervious areas.
- Details on sign brightness and any illumination of Bases.
- Historic heritage assessment or justification as to why one is not required.
- Details on the use of cement powder in relation to rule E14.4.1(A77) of the AUP.

3.3.2. A response to the request for information was received on 8 May 2018 from Unio Environmental. I note that an earlier letter was also received from Unio on 19 April 2018 addressing certain matters in relation to groundwater, Stormwater/ITAs, transport, and enclosing a substitute version of Document 5, the Options Report.

3.3.3. Following the close of submissions no further information requests have been made however the applicant has provided additional information in response to comments made by Council officers in their technical reports. In summary, the following additional information has been received:

- Proposed alterations to the conditions of consent relating to groundwater.⁹
- Further assessment of the construction effects on marine mammals.¹⁰
- Proposed alterations to the conditions of consent in relation to transport matters to include monitoring and review of staff travel plans, development of 'Parking Management Plans', inclusion of a 'Pedestrian and Cycle Management Plan', management of the access lane to the west of Bases C-G for all users, provision of safe access on Hobson Wharf.¹¹
- A proposed condition in relation to the legacy use of the Hobson Wharf extension.¹²

3.4. Council's review of the application under section 87F RMA

3.4.1. This report has been prepared by the reporting planner (Nicola Broadbent, Team Leader, North West Resource Consenting Unit, Auckland Council).

3.4.2. The review of this application has been assisted by expert input from a large team of specialists engaged by Council, in its regulatory capacity, to provide an independent peer review of relevant aspects of the application and accompanying technical reports. Each of the experts listed below has provided a separate report / memorandum detailing the outcome of their peer review:

- (a) Dr Kala Sivaguru, Senior Specialist, Natural Resources and Specialist Input, Resource Consents (marine ecology, water and sediment quality) – **Appendix B**
- (b) Sam Morgan, Senior Coastal Consultant, 4sight Consulting (consultant to Council) (coastal processes) - **Appendix C**
- (c) Charlie Brightman, Principal Geotechnical Specialist, Engineering & Technical Services (geotechnical) – **Appendix D**
- (d) Peter Kensington, Landscape Architect, Kensington Planning & Landscape Consultants (consultant to Council) (landscape and visual) – **Appendix E**
- (e) Rebecca Skidmore, R. A. Skidmore Urban Design Ltd (consultant to Council) (urban design) – **Appendix F**
- (f) Gemma Chuah and Hillary Johnston, Senior Specialist and Specialist, Stormwater and Industrial or Trade Activities Team, Specialist Input, Resource Consents (stormwater discharge and industrial trade activities) – **Appendix G**
- (g) Jon Styles and Dr Matthew Pine, Director & Principal Consultant, Styles Group (consultants to Council) (noise and vibration) – **Appendix H**
- (h) Rob Van de Munckhof, Principal Environmental Engineer, Tonkin & Taylor (consultant to Council) (hazardous substances) – **Appendix I**
- (i) Rob Van de Munckhof, Principal Environmental Engineer, Tonkin & Taylor (consultant to Council) (assessment in terms of NES for Assessing and Managing Contaminants in Soil to Protect Human Health) – **Appendix J**

⁹ Email dated 16th May 2018 from UNIO Environmental Limited

¹⁰ Letter dated 12th June 2018 from Kennedy Environmental Limited, Marshall Day Acoustics and Unio Environmental

¹¹ Letter dated 8th June 2018 from Unio Environmental Limited

¹² Email dated 19th June 2018 from Unio Environmental Limited

- (j) Marija Jukic, Senior Specialist, Natural Resources and Specialist Input, Resource Consents (land contamination) – **Appendix K**
- (k) Ahad Khan, Senior Development Engineer, Natural Resources and Specialist Input, Regulatory Engineering (development engineering) – **Appendix L**
- (l) Bronwyn Coomer-Smit and Angie Crafer, Director, Flow Transportation Specialists (consultant to Council) (transport matters) – **Appendix M**
- (m) Richard Simonds, Senior Specialist, Natural Resources and Specialist Input (groundwater) – **Appendix N**
- (n) Glen Wright, Principal, Stephenson & Turner (consultant to Council) (lighting) – **Appendix O**
- (o) Christiaan Moss, Deputy Harbourmaster, Auckland Transport (navigation) – **Appendix P**
- (p) Fiona Harte, Specialist, Natural Resources and Specialist Input (sediment control) – **Appendix Q**
- (q) Adrian Lamont, Arb-Eco Limited (consultant to Council) (arborist) – **Appendix R**
- (r) Paul Crimmins, Senior Specialist, Natural Resources and Specialist Input (air quality) – **Appendix S**
- (s) Myfanwy Eaves, Senior Specialist Archaeology, Plans and Places (historic heritage) – **Appendix T.**

4. Description of the site and surrounding environment

4.1. Site Visit

- 4.1.1. I undertook a site visit for the previous AC36 application and associated FFIRF application on 31 January 2018 which included walking around Wynyard Point, along the edge of the Viaduct Basin and viewing the Halsey Street Wharf Extension from a residential apartment in Lighter Quays. I also visited the Viaduct Harbour during the Volvo Round the World stopover on 18 March 2018. Upon receipt of this application I undertook an initial site visit on 27 April 2018 where I viewed the site and the wider surrounding area by walking around the waterfront between Wynyard Point and Princes Wharf and also around the perimeter of the Halsey Street Wharf Extension and along the eastern edge of Hobson Wharf and the western edge of Princes Wharf. Upon the close of submissions I undertook a further site visit on 14 June 2018 to consider matters that were raised in submissions, notably in respect of visual effects and also the location of various businesses that raised concerns regarding access restrictions to their premises.

4.2. Description of Site

- 4.2.1. Sections 8.3 – 8.6 of the AEE provide a description of the existing uses, buildings and public access, including existing occupation permits, ownership and lease arrangements within the subject site.
- 4.2.2. The subject site encompasses the Viaduct Harbour within an area extending from Wynyard Point to the west and Hobson Wharf to the east.

- 4.2.3. Wynyard Point is currently dominated by the operation of bulk liquid terminal facilities with those located on the southern extent of the Point to be removed to facilitate the establishment of syndicate Bases C-G. On the south-eastern corner of Wynyard Point is the SeaLink ferry operation including a building, loading and unloading hardstanding area and docking facilities. Immediately to the north of the SeaLink ferry operation is the Auckland seaplanes base.
- 4.2.4. To the east of Wynyard Point is the Halsey Street Wharf which is used to support the Auckland fishing fleet. It also contains the VEC, with vehicle access running along the western side of the building and an area of hardstanding to the north which appears to be predominantly utilised for servicing the fishing industry and other vessels. The area is also used to support temporary events, such as the Volvo Round the World stopover base. Public access is provided for around the perimeter of this wharf.
- 4.2.5. Hobson Wharf contains the Maritime Museum with a breakwater at the end extending in a westerly direction which is accessible to the public and appears to be used for parking of vehicles. Pedestrian access along the waterfront provides linkages between all three wharves. Along this route are public amenities such as seats, art works and cafes.
- 4.2.6. The Viaduct Harbour is used as a base for Auckland charter vessel fleet and for berthage of large private domestic and international vessels.

4.3. **Description of the Surrounding Environment**

- 4.3.1. The technical memo prepared by Ms Skidmore provides a good description of the surrounding area which is reproduced in part as follows¹³:

While the mixed use environment of the Viaduct Basin has been established for some time, the Wynyard Precinct is far from seeing its full transformation or capacity and regeneration. ... A strong waterfront axis has been created that is enjoyed by many people at different times of the day and throughout the year. While the public realm amenity at the eastern end of the axis has been compromised to a degree by large areas of surface carparking on the Eastern Viaduct (until recently) and Te Wero Island, the lifting bridge connection from the Viaduct Basin to the Wynyard Precinct and the high quality design of the public realm along the waterfront axis through the precinct has created a distinctive and well-used axis. To date, North Wharf has been developed as a hospitality precinct that reinforces the waterfront axis. Wynyard Wharf along the eastern side of Wynyard Point is still primarily used for marine industry and is not publicly accessible. The car ferry leaves from the base area of this wharf where it intersects with North Wharf. The start of the green axis has been implemented with the creation of a linear park adjacent to Daldy Street at its northern end.

... The area as a whole has a strong maritime character with the visual links to the marine environment and a mix of commercial and recreational boats moored around the perimeter of the land and wharf structures. While the western edge of the Wynyard Precinct retains a strong marine industry focus, the fishing fleet is dispersed through the area and contributes to the authenticity of the environment as a working waterfront and provides both visual interest and contributes to the area's character.

- 4.3.2. I agree with the description of the surrounding environment as provided by Ms Skidmore and consider it provides an adequate description of the site for the purposes of this report.

¹³ Appendix F, sections 2.3-4, page 2.

5. Reasons for Consent

5.1. Introduction

5.1.1. The AEE states that¹⁴:

Resource consent is potentially required under the following statutory planning documents, as further identified below:

- *Auckland Unitary Plan (Operative in Part)*
- *Plan Change 4 to the Auckland Unitary Plan*
- *National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health*
- *Auckland Council Regional Plan: Coastal section*

5.1.2. I address the reasons for consent arising from the Auckland Unitary Plan (Operative in Part) (**AUP**) in section 5.2 below, and the National Environmental Standard for Assessing and Management Contaminants in Soil to Protect Human Health (**NES**) in section 5.3.

5.1.3. Plan Change 4 to the AUP is an administrative plan change that aims to correct technical errors and anomalies within a number of existing policies, rules, overlays and precincts and the GIS Viewer of the AUP. A decision on submissions concerning Plan Change 4 was notified on 14 June 2018. Plan Change 4, at the time of drafting this report, is subject to the appeal period. I agree with the applicant's assessment in the AEE that the proposed amendments to provisions in Plan Change 4 do not trigger the need for any additional resource consents for the proposal.¹⁵

5.1.4. The final bullet point in the quote above refers to the legacy Auckland Regional Plan: Coastal. The AEE states in this regard¹⁶:

The Auckland Unitary Plan was made operative in part on 15 November 2016 however the Regional Coastal Plan (which forms part of the Unitary Plan) requires approval from the Minister of Conservation pursuant to Section 152(2)(b) of the Local Government (Auckland Transitional Provisions) Act 2010 and Clause 18(3) of Schedule 1 of the RMA. The provisions of the Regional Coastal Plan are beyond challenge and have been forwarded to the Minister for approval however, at the time of writing, the approval has not been confirmed.

This report includes an assessment under the ARP:C. ...

5.1.5. As matters now stand, the Minister has now approved the Regional Coastal Plan (**RCP**) components of the AUP under clause 19 of Schedule 1 to the RMA, and those provisions have been made operative in part by the Council under clause 20¹⁷. Accordingly, the provisions of the former Auckland Regional Plan: Coastal are now inoperative for the purposes of this application, and I do not address them any further in this report.

¹⁴ AEE, section 9.1, page 82.

¹⁵ AEE, section 9.3, page 99.

¹⁶ AEE, section 10.1.2, page 106.

¹⁷ The clause 20 operative in part date of the RCP provisions is 31 May 2018. For completeness, it is noted that certain provisions in the RCP (not relevant to this application) remain subject to appeal. There are two such appeals outstanding: one by **Royal Forest and Bird Protection Society** CIV-2016-404-002343 (mapping of two Significant Ecological Area – Marine) and one by **Federated Farmers** CIV-2016-404-002299 (Genetically modified organisms).

5.2. Auckland Unitary Plan (Operative in Part)

5.2.1. I have reviewed the applicant's assessment of the AUP reasons for consent at section 9.2 of the AEE¹⁸. I generally agree with the applicant's summary, but reach a different conclusion in relation to whether certain rules are engaged or not. Where this is the case, I have explained the basis for my different conclusion below. I consider that nothing turns on the differences, particularly given the non-complying activity status of the proposal overall (as discussed in section 5.4 below).

Viaduct Harbour Precinct

- 5.2.2. Under Rule I211.4.1(A6) consent is required as a **restricted discretionary activity** for the proposed capital dredging within the CMA to provide appropriate water depths for the boats.
- 5.2.3. Under Rule I211.4.1(A27) consent is required as a **restricted discretionary activity** for the wave attenuation devices to be installed on Hobsons Wharf, including the existing and proposed structures.
- 5.2.4. Under Rule I211.4.1(A30) consent is required as a **restricted discretionary activity** for pile moorings to be established for berthage in the Outer Viaduct Harbour associated with the America's Cup activities.
- 5.2.5. Under Rule I211.4.1(A35) consent is required as a **discretionary activity** for the extension to Hobson Wharf and the syndicate base building to be located on it.
- 5.2.6. Standard I211.6.1 refers to temporary activities within the Viaduct Harbour precinct and restricts noise levels, duration and frequency of noise events. During the six months of the America's Cup event phase, event activities will not comply with these standards in relation to duration and noise levels, requiring consent as a **restricted discretionary activity** pursuant to rule C1.9(2).
- 5.2.7. On page 83 of the AEE, Document 4 of the application, it is noted that consent is required as a restricted discretionary activity under rule I211.4.1(A28) for the creation of observation areas, viewing platforms and boardwalks (e.g. on the Hobson South breakwater). Whilst the proposal provides further wharf extensions and breakwaters that will enable viewing of the harbour and any event related activity, no specific observation area, viewing platform or boardwalk is being created. However, as technically a person could stand on the wharf extensions and breakwaters to view the harbour, then the extensions can arguably be considered 'viewing platforms', requiring consent as a **restricted discretionary activity**.
- 5.2.8. On page 84 of the AEE, it is suggested that consent is required as a restricted discretionary activity in relation to a potential infringement of I211.6.4 Building Height. The building to be located on Hobson Wharf is a discretionary activity and whilst it will exceed the 18m height above mean sea level restriction provided for in standard I211.6.4 (by reference to Precinct plan 3), as noted in rule C1.9(1) of the AUP it is only permitted, controlled and restricted discretionary activities that must comply with all the standards. Given that the building is a discretionary activity, consent is not triggered for the height infringement but rather, as provided for in rule C1.8(2), the Council will have regard to the standards for permitted activities as part of the assessment of effects.

Wynyard Precinct

- 5.2.9. Under rule I214.4.1 (A8) consent is required as a **non-complying activity** for the hosting of events within syndicate base buildings C-G whilst hazardous facilities are still in operation in sub-precinct F. An entertainment facility is defined in Chapter J1 of the AUP as a "[f]acility used for leisure or entertainment" (three examples are given: nightclubs, theatres and concert venues).

¹⁸ Page 82 onwards.

Whilst the event is occurring, the team sponsors will be holding corporate events. I consider that the part of each syndicate base building utilised for hosting such events falls within the definition of an 'entertainment facility', and requires consent as a non-complying activity.

- 5.2.10. Consent is being sought by the applicant under rule I214.4.1(A11) as a non-complying activity¹⁹. However this rule refers to events and associated buildings and structures that attract "no more than 1000 people at any one time". As the events are expected to attract in excess of 1000 people, rule 214.4.1(A11) is not considered relevant.
- 5.2.11. Under rule I214.4.1(A12) consent is required as a **non-complying activity** for events which attract more than 1000 people at one time, or which have a duration greater than 21 days (in this instance, an event period of 6 months is proposed with attendance figures anticipated to exceed 1000 people at a given time), and which consists of activities located within sub-precinct F whereby not all hazardous industries have yet to cease operating²⁰. Once those industries cease, the requirements in E40 Temporary activities will apply to events, but until then the requirements set out in the Wynyard Precinct apply to all events located in (among other areas) sub-precinct F²¹.
- 5.2.12. Under rule I214.4.1(A12) consent as a **restricted discretionary activity** for events which attract more than 1000 people at one time, has a duration greater than 21 days (an event period of 6 months is proposed with attendance figures expected to exceed 1000 people at a given time), and consists of activities located within sub-precinct E and Area 6.
- 5.2.13. Table I214.4.1(A13) provides for "major marine events" within the CMA on Halsey St Extension Wharf and the Western Viaduct Wharf as a permitted activity for a duration of 60 days. The event duration being six months will exceed this and the applicant is seeking consent as a **discretionary activity** pursuant to rule C1.7²². As there is no provision for major marine events within the CMA exceeding 60 days it is considered that the event in relation to Base A on the Halsey Street Extension Wharf can be assessed by reference to the provisions in E40 Temporary activities, as discussed below, rather than as a discretionary activity pursuant to rule C1.7. Sub-clause I214.4(5)(a) states that the requirements in E40 apply to temporary activities on the Halsey Street Extension Wharf.
- 5.2.14. Marine and port activities, which include the storage, servicing, maintenance and repair of vessels associated with a syndicate base, and any related buildings and structures, requires consent as a **restricted discretionary activity** within Sub-precinct F pursuant to rule I214.4.1(A19).
- 5.2.15. Public amenities in sub-precinct F (excluding Wynyard Wharf), such as the landscaping and planting proposed on Wynyard Point, requires consent as a **non-complying activity** pursuant to rule I214.4.1(A25), as hazardous industries within this sub-precinct have not ceased operating.
- 5.2.16. Public amenities on Wynyard Wharf, such as landscaping and a kiosk as shown on the plans at the southern end of Wynyard Wharf, require consent as a **non-complying activity** pursuant to I214.4.1(A26), as hazardous industries within sub-precinct F have not ceased operating.
- 5.2.17. On page 85 of the AEE, Document 4 of the application, it is suggested that consent is required as a discretionary activity under rule I214.4.1(A35) for any activity not listed as a permitted, controlled, restricted discretionary or non-complying activity which has a functional need to be located in the CMA. I consider that all the proposed activities within the CMA are captured within the other rules as noted and that there is no specific 'trigger' for consent under this rule.

¹⁹ AEE, page 85

²⁰ See I214.4(6) for this latter requirement.

²¹ I214.4(6).

²² AEE, page 85

- 5.2.18. Under rule I214.4.1(A39), consent is required as a **restricted discretionary activity** for capital works dredging required to create appropriate depths for navigation within the Wynyard Precinct CMA.
- 5.2.19. Buildings and structures associated with marine and port facilities require consent as a **restricted discretionary activity** pursuant to rules I214.4.2 (A41) and (A51). The syndicate bases are considered to fall within the definition of 'marine and port facilities' thereby requiring resource consent for any associated building and structure within the CMA, and for their occupation within the CMA as a restricted discretionary activity under (A41) and the buildings and structures on land requiring consent as a restricted discretionary activity under (A51).
- 5.2.20. The syndicate base buildings C-G will be demolished, ten years from commencement of the consent, and therefore under rule I214.4.2(A47) consent is required as a **controlled activity**. Consent is also being sought under this rule for the removal of any existing buildings or structures required to facilitate the development. The demolition or removal of CMA structures is a permitted activity in the Wynyard Precinct.
- 5.2.21. Under rule I214.4.2(A49), consent is required as a **restricted discretionary activity** for the infill deck area to Wynyard Wharf and the upgrading works required to improve the condition and structure of the existing structure. Consent is also required under this rule for the modifications to occur to the VEC building to accommodate Base A.
- 5.2.22. A new connector road is proposed to the north of Bases C-G to provide access to these bases and also the Stolthaven North facility, and also lanes between Bases C and D, D and E, and F and G, requiring consent as a **restricted discretionary activity** under rule I214.4.2(A52). It is acknowledged that works will be required in the existing Brigham Street road corridor however as this development is based on the presumption that this road will be stopped via a separate process, works to Brigham Street are not considered under this rule as it will no longer be road reserve when implementing this consent.
- 5.2.23. The Wynyard Precinct plan 6 details indicative lanes and viewshafts for the precinct. Indicative lanes are shown on the proposed plans between syndicate Bases C and D, D and E, and F and G. Precinct plan 6 shows lanes in these locations, extending in a west-east direction between the waterfront and Hamer Street. The lanes are to be available for public use in all circumstances between the hours of 7am and 11pm, however the lanes are expected to be temporarily closed to the public and certain times during the events, requiring consent as a **non-complying activity** pursuant to rules I214.4.2(A60) and I214.6.12(5).
- 5.2.24. Standard I214.6.6(1) states that any building must not exceed the heights specified on Precinct plan 5, which shows that the location area for Bases C – G is subject to height restrictions of both 15m and 27m. Whilst the proposed base buildings will have a maximum height of 15m, it is expected ground levels will rise by 1m due to the placement of fill and therefore consent is required to infringe the 15m maximum height by 1m as a **discretionary activity** under rules I214.4.2(A61) and I214.6.6.
- 5.2.25. Under rule C1.9(2) consent is sought as a **restricted discretionary activity** to infringe the noise standards in rule I214.6.4 during the event periods.
- 5.2.26. Standard I214.6.8 states that 'H8.6.25 building frontage alignment and height' applies except where the maximum building height is less than the minimum frontage height requirement in Map H8.11.5 of the Building – City Centre Zone. Bases C-G are identified in Map H8.11.5 as requiring a minimum frontage height of 13m and 19m. Map H8.11.5 identifies a minimum 19m frontage height along the boundary with Brigham Street and a minimum 13m frontage height on frontages to be created through the implementation of the Waterfront Plan 2012. The configuration of the base buildings does not entirely align with the frontages as shown on Map H8.11.5 and the base buildings do not provide for a contiguous minimum height frontage for a depth of 6m given they

will have a maximum height of 15-16m, requiring consent as a **restricted discretionary activity** pursuant to rule C1.9(2).

- 5.2.27. Consent is being sought by the applicant²³ in relation to standard I214.6.11(4) as a restricted discretionary activity for exceeding a 50% crossing width restriction for any front and corner site on both Brigham Street and Hamer Street. The application has been made on the presumption that Brigham Street is to be stopped and therefore will no longer be legal road. In relation to Hamer Street, the plans do not show vehicle crossings exceeding 50% of the frontage and therefore it is considered that consent is not required for any infringement to standard I214.6.11(4).
- 5.2.28. Consent is being sought as a restricted discretionary activity pursuant to rule C1.9(2) to infringe standard I214.6.12(7) which restricts structures and buildings from being located in the coastal viewshafts as shown on Precinct plan 6. Berthing facilities for the racing yachts and their supporting boats are shown in the viewshafts to the east and south-east of Wynyard wharf, requiring consent as a **restricted discretionary activity**.
- 5.2.29. Consent is being sought as a **restricted discretionary activity** pursuant to rule C1.9(2) to infringe standard 'I214.6.13.1 Public access ways – wharves' as public access will be restricted along the eastern edge of Wynyard Wharf, the southern edge of the Western Viaduct and on the eastern edge of Halsey Street Extension Wharf.
- 5.2.30. Consent is required as a **restricted discretionary activity** pursuant to rule C1.9(2) to infringe standard I214.6.15 to enable temporary structures associated with the 6 month event period to be erected beyond 60 days and to also restrict access for more than 60 days in a 12 month period to the east of the VEC during event periods.

Business – City Centre Zone (Chapter H)

- 5.2.31. Standard H8.6.26 requires a minimum 3m width of verandah along the frontage of base buildings C-G. No verandahs are being proposed, requiring consent as a **restricted discretionary activity**, pursuant to rule C1.9(2).
- 5.2.32. As noted above, the proposed development does not comply with the minimum frontage height requirements in standard H8.6.25, requiring consent as a **restricted discretionary activity**, pursuant to rule C1.9(2).

Auckland Wide Provisions (Chapter E)

- 5.2.33. Under Rule E4.14.1(A15) **discretionary activity** consent is sought for the discharge of contaminants to land, as dredged material will be stockpiled on land prior to being moved to a landfill facility or utilised in the construction process.
- 5.2.34. As part of the ground improvement works groundwater diversion will be required, as a **restricted discretionary activity** under rule E7.4.1(A20).
- 5.2.35. During construction the groundwater diversion to occur for stabilisation works will not comply with the permitted activity standards in terms of the piles being greater than 1.5m in diameter; the natural groundwater level being reduced by more than 2m on the boundary of an adjoining site; the groundwater works will likely impede the flow of groundwater greater than a length of 20m; structures associated with stabilisation will extend more than 2 metres below groundwater level. Consent is therefore required as a **restricted discretionary activity** under rule E7.4.1(A28).

²³ AEE, page 88.

- 5.2.36. Under rule E8.4.1(A10) consent is required as a **discretionary activity** for the diversion and discharge of stormwater from the impervious areas associated with Bases C-G.
- 5.2.37. Under rule E11.4.1(A9) consent is required as a **restricted discretionary activity** for earthworks which exceed 2,500m² within a sediment control protection area (23,100m² of earthworks area is proposed).
- 5.2.38. Any regional earthworks activity should be undertaken in accordance with standards noted in section E11.6. E11.6.1(2)(d) states that upon any discovery of a protected New Zealand object as defined in the Protected Objects Act 1975 works on the site shall cease with the area secured and relevant parties informed of the discovery to enable inspection. The applicant is seeking consent to infringe this standard as a **restricted discretionary activity** pursuant to rule C1.9(2) and has proposed a discovery protocol as condition of consent.
- 5.2.39. Consent is sought under rule E12.4.1 (A6) and (A10) as a **restricted discretionary activity** for district earthworks greater than 2500m² in area and 2500m³ in volume (10,607m³ over an area of 23,100m² proposed).
- 5.2.40. Any district earthworks activity should be undertaken in accordance with the standards noted in section E12.6. E12.6.1(2)(d) states that upon any discovery of a protected New Zealand object as defined in the Protected Objects Act 1975 works on the site shall cease with the area secured and relevant parties informed of the discovery to enable inspection. The applicant is seeking consent to infringe this standard as a **restricted discretionary activity** pursuant to rule C1.9(2) and has proposed a discovery protocol as condition of consent. Consent is also being sought under rule C1.9(2) to infringe standard E12.6.2(1) for general earthworks greater than 5m² and 5m³ within a coastal protection yard, and also standard E12.6.10 for earthworks involving contaminated material.
- 5.2.41. The applicant is seeking consent on a conservative basis for earthworks related to the construction, maintenance and repair of public roads given the level of contaminants in the land is unknown, under rule E14.4.4 (A83 – although noted as A82 in the AEE) as a restricted discretionary activity. Minor works will be occurring in Hamer Street in relation to creating new or removing, vehicle crossings. Works are also occurring in Brigham Street, however it is expected that the road stopping process will be in place and therefore, Brigham Street will not be considered a public road and consent is not triggered under this rule. The proposed northern connector road will not be vested as a public asset and therefore works in association with this road will also not trigger the need for consent under this rule.
- 5.2.42. I have identified a further consent requirement in Chapter E14. Cement is proposed to be utilised in the construction process and pursuant to rule E14.4.4 (A77) consent is required as a **discretionary activity** for cement storage and handling within a 'high air quality – dust and odour area'.
- 5.2.43. Consent is required as a **restricted discretionary activity** under rule E15.4.1 (A21) for the removal of 'Tree 1' as identified in the Arboricultural Assessment Report contained in Document 18 of the application, given it is more than 3m in height and is within 20m of high water springs.
- 5.2.44. Consent is required as a **restricted discretionary activity** under rule E17.4.1(A10) for the removal of trees 15 – 17 located in the Hamer Street road reserve as identified in the Arboricultural Assessment Report, as they are more than 4m in height and have girths greater than 400mm.
- 5.2.45. Not all trees within the subject area are to be removed and given the construction methodologies have not yet been confirmed, consent is also sought as a **restricted discretionary activity** to undertake works within the root zone of retained trees, pursuant to rule E17.4.1(A8).

- 5.2.46. Comprehensive development signage is defined in Chapter J1 of the AUP (by reference to the definition in the Auckland Transport/Auckland Council Signage Bylaw 2015) as any “signage relating to a new building or the alteration of an existing building where the building or alteration requires a resource consent and/or building work to the value of at least \$100,000, assessed at the time a building consent is lodged with the council”. The syndicate base buildings are expected to exceed \$100,000 in value and will have signage associated with team sponsors, therefore requiring consent as a **restricted discretionary activity** under rule E23.4.2(A53).
- 5.2.47. Construction works and ‘Noise Events’ during the event periods will exceed the noise standards for the General Coastal Marine Area zone and the Business – City Centre zone, requiring consent as a **restricted discretionary activity** under rule E25.4.1(A2). Construction activity is also expected to exceed the vibration standards at certain stages of the project, also requiring consent as a **restricted discretionary activity** subject to rule E25.4.1(A2).
- 5.2.48. Despite any other rule in the AUP permitting earthworks, any earthworks undertaken in relation to infrastructure must be undertaken in accordance with standards noted in section E26.7.5.1. Standard E27.5.1(2)(d) states that upon any discovery of a protected New Zealand object as defined in the Protected Objects Act 1975 works on the site shall cease with the area secured and relevant parties informed of the discovery to enable inspection. The applicant is seeking consent to infringe this standard as a **restricted discretionary activity** pursuant to rule C1.9(2) and has proposed a discovery protocol as condition of consent.
- 5.2.49. Standard E27.6.4.2.1 states that there shall be a minimum separation distance of 6m between vehicle crossings serving the same site. A 5.5m separation distance between crossings on Hamer Street is proposed, requiring consent as a **restricted discretionary activity** pursuant to rule C1.9(2).
- 5.2.50. Standard E27.6.4.2.2 states that the width of a vehicle crossing must meet the requirements noted in Table E27.6.4.3.2. A one-way vehicle crossing is required to be between 3-3.5m in width and a two-way crossing 5.5m in width. Three one-way vehicle crossings exceeding the maximum 3.5m width are proposed, and two two-way crossings exceeding the 5.5m in width, requiring consent as a **restricted discretionary activity** pursuant to rule C1.9(2).
- 5.2.51. Given the historical use of the site, the land is likely to be contaminated and given that the levels of contamination are not yet known, and compliance with the appropriate standards cannot be demonstrated, consent is sought for the discharge of contaminants into air, water and land as a **discretionary activity** subject to rule E30.4.1(A7).
- 5.2.52. Each of the syndicate bases will be storing and using hazardous substances however as the volume of these associated with each base is not yet known, the applicant is unable to demonstrate compliance with specified thresholds and therefore consent is required as a **discretionary activity** under Rule E31.4.1(A7).
- 5.2.53. Boat or ship construction, repair or maintenance facilities greater than 5000m² is considered a ‘high risk’ industrial trade activity under Table E33.4.3. The proposed activity when considered holistically will result in an area greater than 5000m² and therefore **discretionary activity** consent is required for the discharge of contaminants from a new industrial or trade activity area listed as high risk, pursuant to rule E33.4.2(A24).
- 5.2.54. Buildings and structures are proposed within the coastal erosion hazard area (land which is at an elevation less than 7m above mean high water springs if the activity is within the Inner Harbours and Inner Hauraki Gulf: 40m of mean high water springs), requiring consent as a **restricted discretionary activity** under rule E36.4.1(A4).
- 5.2.55. A hard protection structure is a structure that has the primary purpose or effect of protecting an activity from a coastal hazard, including erosion. The applicant is seeking consent under E36.4.1(A20) on a restricted discretionary activity basis for the stabilisation works that are to

occur to the existing wharf structures and which ultimately will maintain the stability of the coastal edge. Activity (A20) refers to extensions to existing structures which increases the area of occupation. The ground improvement works are not increasing the area of occupation and are considered a **permitted activity** under E36.4.1(A19), which provides for the repair, maintenance or minor upgrade of lawfully established hard protection structures.

- 5.2.56. An overland flow path is shown on the Council GIS maps running through the site where syndicate Base G is located and along Brigham Street. Consent is sought as a **restricted discretionary activity** pursuant to E36.4.1(A42) for buildings and structures located within or over an overland flow path. Whilst the GIS maps show a flood prone area within the site, adjacent to Brigham Street, this is the area of water space between Wynyard Wharf and Brigham Street rather than a flood prone area and therefore does not trigger any consent for development within a flood prone area under chapter E36.
- 5.2.57. Chapter E40 provides for temporary activities subject to meeting standards. I note that, while the provisions in Chapter E40 provides for temporary activities of shorter duration, they also anticipate and provide for events of longer duration. Rule E40.4.1(A6) provides for temporary activities in public places and on private land and for more than 21 consecutive days within the area of the City Centre as a restricted discretionary activity. The event periods are six months in duration and do not comply with the noise standards and will therefore require consent as a **restricted discretionary activity**. Chapter E40 also provides for “noise events” within public places as a permitted activity (E40.4.1(A12)). Noise events are restricted in terms of duration and frequency (see E40.6.5). The applicant has not provided any details with respect to noise events that may occur during the event periods to show compliance and therefore consent is considered necessary as a **restricted discretionary activity** subject to rule E40.4.1(A24).

Coastal – General Coastal Marine Zone (Chapter F)

- 5.2.58. Under rule F2.19.2(A10), consent is required as a **discretionary activity** for the temporary deposition of material on the seabed extracted during piling and the construction of structures.
- 5.2.59. Under rule F2.19.4(A37), consent is required as a **discretionary activity** for disturbance of the foreshore in association with the stabilisation and construction works.
- 5.2.60. **Discretionary activity** consent is required under rule F2.19.8(A84) for occupation of the CMCA for areas to the north and south of Hobson Wharf to accommodate the 74m wharf extension and floating pontoons.
- 5.2.61. Consent is required under rule F2.19.8(A94) for any parking associated with the syndicate bases located on the coastal marine structures, as a **discretionary activity**.
- 5.2.62. Underwater noise generated by impact or vibratory piling associated with the wharf extensions will include impact piling, requiring consent as a **restricted discretionary activity** under rule F2.19.8(A114).
- 5.2.63. Consent is required under rule F2.19.10 (A121) for wave attenuation structures in the Wynyard precinct as a **discretionary activity**.
- 5.2.64. The applicant is seeking consent under rule F2.19.10(A142) as a discretionary activity for hard protection structures. As previously noted, hard protection structures are those which have as a primary purpose protection from a coastal hazard. The proposed structures are for wharf extensions to accommodate buildings and structures required for water calming measures. It is therefore considered that consent is not strictly required under this rule.
- 5.2.65. The applicant is seeking consent under rule F2.19.10(A143) as a discretionary activity for observation areas, viewing platforms and boardwalks. Whilst the proposal provides further wharf extensions and breakwaters that will enable viewing of the harbour and any event related activity,

no specific observation area, viewing platform or boardwalk is being created. However, as technically a person could stand on the wharf extensions and breakwaters to view the harbour, then the extensions can arguably be considered 'viewing platforms', requiring consent as a **discretionary activity**. Note also my discussion of rule I211.4.1(A28) at paragraph 5.2.7 above.

5.3. **National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health**

5.3.1. Due to historical land uses, Wynyard Point is considered to contain contaminated soil and given works, including land disturbance is to occur for the construction of Bases C – G. Consent is required as a **discretionary activity** pursuant to Regulation 11 for disturbance of soil on land which has previously had HAIL activities conducted and where the level of soil disturbance exceeds permitted thresholds and no detailed site investigation has been undertaken.

5.4. **Overall Activity Status / Bundling**

5.4.1. I agree with the applicant's view²⁴ that as all matters associated with the proposal are interrelated, it is appropriate to bundle the consents and consider them together on a comprehensive basis as a **non-complying activity** overall.

6. **Notification, submissions and written approvals**

6.1. **Notification**

6.1.1. The application was publicly notified on 30th April 2018 with the submission period closing on 28th May 2018. Notice of the application was also served on property owners and occupiers neighbouring the site within the Viaduct Harbour. A complete summary of submissions is attached as **Appendix A**.

6.2. **Submissions**

6.2.1. Following notification of the application, a total of 83 submissions were received including 2 submissions²⁵ received after the closing date of the submission period.

6.2.2. Section 37 of the RMA allows the consent authority to waive any failure to comply with the time for lodgement/service of documents, such as submissions.

6.2.3. As the late submissions are similar in nature to other submissions received and were received within five working days of the submission period closing, it is recommended that the late submissions be accepted. In accordance with sections 31 and 37 of the RMA, it is considered that no person would be prejudiced by the acceptance of the late submissions received. A determination on this matter will need to be made by the decision making authority.

6.2.4. A total of 45 submissions support the application, a total of 33 submissions oppose the application and 5 of the submissions were neutral. Of the 83 submissions received, 61 submitters state that they wish to be heard.

²⁴ Section 9.6 of the AEE, at page 105.

²⁵ Submission #81 Kawau Island Action Incorporated Society and Submission #83 Peter A Lawn

6.3. Summary of issues raised in submissions

6.3.1. The following list is a summary of the issues raised in submissions in opposition:

- a. Encroachment into the harbour
- b. Visual effects from the extension to Hobson Wharf and associated buildings and advertising on the syndicate bases
- c. Construction effects
- d. Use of public land
- e. Duration of the consent – ten years is considered too long
- f. Management Plans and consultation parties
- g. Berthing space to be made available for heritage vessels
- h. Treaty claims and jurisdictional issues
- i. Design Guidelines
- j. Transport (traffic and pedestrian movement and car parking)
- k. Mana whenua engagement
- l. Fishing and ferry relocation
- m. Heritage effects
- n. Public access
- o. Hazards from the tank farm
- p. Integrity of the Waterfront Plan.

6.3.2. The following list is a summary of the issues raised in submissions in support:

- a. Manoeuvring area for the Spirit of New Zealand vessel is retained
- b. The impact on pedestrian and vehicular traffic on Princes Wharf needs to be considered
- c. Consider more berthage for super yachts
- d. Ensure that 'Site 18' is retained as a marine maintenance centre
- e. Traffic effects within the Wynyard Precinct, including access to sites, parking, movement of traffic
- f. Incorporate designs that recognise tangata whenua
- g. Noise effects on surrounding residents and the validity of the noise assessment submitted with the application
- h. Ensure that any new buildings can withstand hazards
- i. The VEC building to be permitted to be decorated with associated bunting/flags/lighting
- j. The ten year timeframe is not justified and the sites should be cleared sooner if necessary
- k. Design infrastructure that can be used permanently in the future for other events
- l. Public access and movement around the area should be maintained with any restrictions kept to a minimum

- m. Retain the open space and create a green passage from Victoria Park to a future Headland Park
- n. Alternative berthage should be found for the William C Daldy tug and berthing space for other heritage vessels
- o. Land and water front access for the operation of the marine industry shall be safeguarded
- p. The need/demand for the extension to Hobson Wharf
- q. Adequacy of the management plans to be submitted through conditions of consent, and certainty they give for avoiding or mitigating effects
- r. List of parties to be consulted with during the drafting of management plans
- s. Visual effects
- t. Construction effects
- u. Satisfactory arrangements to be made for the relocation of the ferry and fishing industry
- v. Lack of consideration for security measures
- w. Media centre required for the events
- x. Breakwaters are inadequate to create the calm water space required for the vessels
- y. Maintaining and enhancing facilities for cyclists
- z. Design Guidelines
- aa. Relocation of the sea leopard / leopard seal.

6.3.3. The following list is a summary of issues raised in neutral submissions:

- a. The protection of Vector's assets and infrastructure in the Project area (including maintaining unrestricted access to these assets)
- b. The Tree Council supports the transplanting of trees recommended for removal, in particular tree number 1
- c. Culturally appropriate design solutions should be incorporated into the development to offset adverse effects on the mauri of the Waitemata and to celebrate Maori culture
- d. Conditions are imposed requiring maintenance of 24hr/7 days roading access for all Firth operational vehicles via Hamer Street/Beaumont Street
- e. Conditions are imposed that restrict the number of truck and vehicle movements to those detailed in the Beca report
- f. Conditions are imposed which require measures to be put in place at all times to separate pedestrians from Hamer Street/Beaumont Street.

6.4. **Written Approvals**

6.4.1. The applicant has obtained written approval from Stolthaven New Zealand Limited (**Stolthaven**) provided that construction activities will be sequenced and managed to provide Stolthaven with adequate vehicle access to their sites on Wynyard Point and that recommendations set out in the Sherpa Report (Appendix 14, Volume 2 of the application) are appropriately incorporated into any resource consent granted.

- 6.4.2. Written approval has also been obtained from Ports of Auckland as operators of the commercial port, providers and managers of marine services and also as the holders of a coastal permit under section 384A of the RMA for the water space that the syndicate base infrastructure and event infrastructure will occupy.²⁶
- 6.4.3. The applicant has also received approval in principle from Regional Facilities Auckland (**RFA**) which owns and operates the ANZ VEC on Halsey Wharf and the New Zealand Maritime Museum on Hobson Wharf.²⁷ As the letter is an ‘approval in principle’ and notes that RFA has not seen any detailed plans or assessments, including the scale of effects on its business operations, I have not, when assessing the application disregarded the effects on the Maritime Museum.

7. Statutory Considerations

- 7.1. Section 87G(6) of the RMA states that “*if considering a matter that is an application for a resource consent, the Court must apply sections 104 to 112 and 138A as if it were a consent authority*”.
- 7.2. In considering any application for resource consent and any submissions received, the consent authority must have regard to the following requirements under section 104(1) – which are subject to Part 2 (the purpose and principles):
- a. Any actual and potential effects on the environment of allowing the activity (section 104(1)(a));
 - b. Any relevant provisions of national policy statements, New Zealand coastal policy statement; a regional policy statement or proposed regional policy statement; a plan or proposed plan, a national environmental standard (**NES**), or any other regulations (section 104(1)(b)); and
 - c. Any other matter the consent authority considers relevant and reasonably necessary to determine the application (section 104(1)(c)).
- 7.3. The written approvals of the persons/parties set out in Section 6.4 of this report have been provided by the applicant. Pursuant to section 104(3)(a)(ii) of the RMA, any consideration of effects on persons who have provided written approval must be disregarded. As discussed above, the ‘in principle’ approval from RFA is equivocal and I do not consider the RFA’s letter can be treated as an approval in terms of section 104(3). I am satisfied however that any effects on Stolthaven and the Ports of Auckland can be disregarded.
- 7.4. An assessment of the proposal in terms of section 104(1) of the RMA is provided in Section 8 below. Following the section 104(1) assessment, an assessment is made in terms of section 104B, section 104D and Part 2 of the RMA.

8. Section 104 Assessment

8.1. Effects That Must Be Disregarded

8.1.1. Trade competition

Pursuant to section 104(3)(a)(i) of the RMA, a consent authority must not have regard to trade competition or the effects of trade competition. No matters relating to trade competition have been raised within the submissions received.

²⁶ Document 33, Volume 3

²⁷ Document 33, Volume 3

- 8.1.2. Any effect on a person who has given written approval to the application.

Pursuant to section 104(3)(a)(ii) of the RMA, a consent authority must not have regard to any effect on a person who has given written approval of the application. As stated above, the applicant has obtained the written approval from Stolthaven and Ports of Auckland, and approval in principle from Regional Facilities Auckland. Again, I query whether the latter can be treated as an approval for the purposes of section 104(3)(a)(ii).

8.2. **The “Environment”**

The Existing Environment

- 8.2.1. Having undertaken site visits to the locality, I agree with and accept the description provided by the applicant as being a generally accurate presentation of the existing environment.²⁸ I also refer again the quote from Ms Skidmore’s report at paragraph 4.3.1 above.

The Consented Environment

- 8.2.2. The site has a wide range of existing consented uses which are outlined within the application.²⁹

The Future Environment

- 8.2.3. The AUP is the relevant planning instrument for the purpose of identifying the ‘future environment’. The subject site predominantly falls within the CMA, Wynyard Precinct and Viaduct Harbour Precinct. The provisions in the AUP related to these zones are primarily not permissive with structures generally requiring resource consent to ensure high quality urban design outcomes are achieved which recognise the relationship with the water and greater public use of the area.
- 8.2.4. Taking a longer term view of the area it is recognised that Wynyard Point has a number of designations located on it in relation to ‘Public Open Space’ and this is recognised in other relevant planning documents such as ‘The Waterfront Plan’ which includes a headland park on Wynyard Point with a green link to Victoria Park.

9. Section 104(1)(a) – Assessment of actual and potential effects on the environment

- 9.1. Having regard to the above and after analysis of the application (including any proposed mitigation measures), undertaking site visits, reviewing Council records, reviewing the submissions received and taking advice from appropriate experts, the following effects that require specific consideration in respect to this application have been identified.

²⁸ AEE, section 8, page 58

²⁹ Document 32 of the application (Consent History, Unio Environmental, April 2018)

9.2. Navigation

- 9.2.1. Section 10.10 of the AEE and Documents 19 and 20 of the application addresses navigation and safety issues in relation to the surrounding water space to the site, during construction activities and throughout the event periods. During the construction phase it is expected that the dredging and increased harbour traffic can be managed by the development of a Maritime Safety Management Plan in consultation with the Harbourmaster and other uses of the waterspace. Mitigation measures to ensure ongoing usability and safety of the harbour will include communications on construction operations, placement of buoys and temporary beacon lights. In terms of the events, the applicant has designed a water space that achieves the required water depths and tranquillity for the race boats and berthing arrangements that can provide appropriate manoeuvring for the race boats, associated regatta boats, superyachts and other vessels. Whilst during the events there will be an increase in recreational and commercial boat traffic in the Waitemata Harbour this will be managed as it has previously occurred for other water based events within the Harbour.
- 9.2.2. The Deputy Harbourmaster, Mr Moss, on behalf of Council has assessed the reports prepared by the applicant, including section 10.10 of the AEE, the Navigation Safety and Utility report prepared by Navigatus Consulting and the Marine Traffic Survey prepared by Beca. Mr Moss notes in his technical report (**Appendix P**) that in terms of navigation the proposal will impact on three distinct navigational areas, being Princes Wharf west, the Viaduct entrance fairway and the Wynyard Wharf South waterspace. The Hobson Wharf breakwater will extend 35m into the Princes Wharf west waterspace however Mr Moss considers that the remaining fairway width which will be in excess of 60m is sufficient for vessels to manoeuvre and berth safely, including the Spirit of Adventure vessel which is located within this area. The Viaduct Fairway entrance will remain at a width of 40m which is considered sufficient to ensure vessels using the space can continue to do so safely. The Wynyard Wharf South waterspace will contain the berthing facilities for the race boats associated with Bases C – G and superyachts, and will also contain breakwaters required for the creation of tranquil water. The development in this waterspace has the ability to affect the berthing operations of tankers on Wynyard Wharf. However Mr Moss has stated that provided sufficient fairway clearance is maintained at all times, and no mooring lines or anchors will impact vessels in transition, managed by restrictions imposed under the Maritime Transport Act 1994, existing use of this waterspace will be maintained and boats associated with the event can safely berth and manoeuvre.
- 9.2.3. The submissions received have raised concerns in relation to the following:
- a. Prioritisation of the Te Wero bridge given to boats rather than pedestrians.
 - b. Manoeuvring space for the Spirit of Adventure Trust (Trust) vessel.
 - c. Potential impact on navigation safety in the event the SeaLink ferries and the fishing fleet are relocated to a site within the Westhaven fairway.
- 9.2.4. In response to these concerns Mr Moss states that the operation of the Te Wero lifting bridge is operated by the applicant (Panuku) and the current bridge procedures have caused no concerns in relation to navigational safety; during the construction period a Navigation Safety Management Plan (**NSMP**) will be implemented which will provide details on maintaining berthing facilities for vessels and does not envisage the Trust being impacted during the event(s) themselves; and there are no definitive plans for the relocation of the fishing and ferry industry, however in the event that they are relocated to the Westhaven fairway then consideration will need to be given at that time to the impact on navigation safety due to increased traffic within the fairway.

- 9.2.5. In relation to the conditions proposed regarding maritime safety and navigation³⁰, Mr Moss is satisfied that these are adequate however does recommend an additional condition is imposed requiring the consent holder to prepare a NSMP for on-water construction activities. He also proposes revisions to condition 35(b) to address the need for navigation access to be maintained to and from the Viaduct Harbour at all times, and to condition 46³¹ requiring the consent holder to consult with, and have approved by the Auckland Harbourmaster in relation to the appropriate location, number and type of navigational aids and lighting required for the proposal. Mr Moss's proposed amendments have been included in the set of proposed conditions at **Appendix U**.
- 9.2.6. On the basis of the expert information provided with the application, and the review undertaken by Mr Moss, the proposed development is of a design that can achieve appropriate manoeuvring and berthing facilities for boats associated with the events, and safe navigation for existing harbour users will be maintained during construction, and the event periods. The amendments to the conditions are considered reasonable and will ensure that safe navigation and berthing facilities for other users of the harbour will be maintained throughout the ten year duration of the consent. Overall, I consider that in terms of navigation, the adverse effects in terms of ongoing safety and access for existing and future users of the waterspace, will be no greater than minor.
- 9.3. **Groundwater**
- 9.3.1. Ground improvement works are required over approximately 230m of Brigham Street which will likely incorporate columns extending to a depth of 10-15m placed in a lattice pattern 20m landward of the existing seawalls. The ground improvement works will extend approximately 13m below natural groundwater level and will require consent for the diversion of groundwater.
- 9.3.2. Section 10.18 of the AEE³² and Document 26³³ of the application address the effects associated with groundwater diversion. The groundwater technical report contained within Document 26 states that ground improvements will be parallel or at an oblique angle to the direction of groundwater flow, and therefore damming is unlikely to occur. Previous stabilisation works that have occurred within the Wynyard Quarter indicate that less than 0.2m of mounding has occurred in terms of changes to ground water. In the event that the proposed stabilisation works will result in 0.2m of mounding the groundwater levels will remain at a depth that will unlikely impact on buried services. Conditions of consent are also proposed by the applicant that requires monitoring of any groundwater changes and requires appropriate contingency plans to be put in place in the event groundwater level changes exceed the thresholds as set out in Document 26.
- 9.3.3. Mr Simonds, Council's groundwater specialist has reviewed the application (**Appendix N**) and concurs with the findings within the technical report contained within Document 26 and concludes that there will be less than minor effects on the environment as a result of the proposed activities.
- 9.3.4. No submissions have been received which raise any concerns in relation to groundwater.
- 9.3.5. With regard to the proposed conditions of consent relating to groundwater³⁴, Mr Simonds considers them acceptable however notes that the conditions need amending to correctly reference the 'Team Leader Compliance Monitoring - Central', groundwater specific definitions to be added to the definitions of terms within Document 7, and that condition 96(a) is amended to cross-reference Figure 5 in the Beca Groundwater Report³⁵. He also recommends minor amendments to condition 99 to add the word "Stabilisation" where appropriate, for consistency with other groundwater conditions. Mr Simonds' proposed amendments have been included in the set of proposed conditions at **Appendix U**.

³⁰ Document 7, Proposed Conditions of Consent (Conditions 46-50 and 143), pages 10-11 & 30

³¹ Document 7, Proposed Conditions of Consent, page 10

³² AEE, section 10.18, page 194

³³ Document 26, Groundwater Technical Report, Beca, April 2018

³⁴ Document 7, Conditions 93-102, pages 19-23

³⁵ Document 26, America's Cup Wynyard Hobson Groundwater Technical Report, Beca, April 2018, Figure 5

9.3.6. On the basis of the expert information provided with the application, and the review undertaken by Mr Simonds I consider that in terms of groundwater diversion, the effects on stabilisation and buried services will be less than minor.

9.4. **Air Contamination**

9.4.1. Due to the level of contamination anticipated in the soil from previous land use activities there is the potential that during construction works objectionable odours may be emitted. Furthermore, the construction activities are likely to involve the storage and handling of cement for mudcreting and grouting activities where there is also the potential for objectionable air discharge. The discharge of dust during the construction period, in close proximity to dust sensitive activities is also a concern.

9.4.2. The 'Draft Remediation Action Plan' (**RAP**) included within Document 27³⁶ of the application addresses dust, vapour and odour management within sections 9.9 and 10.4. Dust control during construction is to be managed by best practice guidelines, such as covering stockpiles, dampening exposed soils, maintaining low traffic speeds and having regard to wind directions. Offensive odours will potentially occur when soil disturbance occurs or existing underground infrastructure is disturbed. Odour monitoring is proposed and the RAP sets out a continuum for perceived odour intensity and associated proposed actions which range from continuing work without modification, to ceasing work immediately with the implementation of odour abatement measures. With regard to petroleum impacted areas monitoring devices will be utilised for excavation areas and if explosive vapour levels are exceeded then evacuation procedures will occur until levels have dropped to a safe level.

9.4.3. Mr Crimmins, on behalf of Council has reviewed the application (**Appendix S**) and concludes that any adverse effects related to air quality are unlikely to occur beyond the boundary of the site provided the applicant adheres to the proposed management measures which are considered adequate for the level of risk present as a result of soil contamination within the works area, and the extent of dust to be generated. Mr Crimmins further notes that given previous assessments and experience within the Wynyard Quarter area, potential discharges to air are unlikely to affect human health or the environment.

9.4.4. There are no specific references to air discharge within the submissions however there have been some concerns expressed in relation to potential dust effects during the construction period. These submitters operate cafes adjoining North Wharf which include outdoor seating areas. Mr Crimmins has taken into account the amenity values of the area and proximity of activities sensitive to dust when assessing the proposal and given the mitigation measures proposed by the applicant, it is considered dust discharges will not adversely affect the surrounding activities.

9.4.5. The applicant's proposed conditions in Document 7 do not specifically relate to air quality management measures, although dust controls are mentioned in proposed conditions 33(j) and 92. Mr Crimmins would typically recommend conditions specific to air discharge however in this instance given the low likelihood of significant air discharge effects arising from this proposal, additional conditions are not considered necessary. However Mr Crimmins does recommend amendments to proposed conditions 33, 88 and 92 to include monitoring and mitigation of dust, odour and volatile organic compounds. Given that there are no specific air quality discharge conditions proposed by the applicant I consider the proposed changes by Mr Crimmins to the conditions are appropriate and will provide for specific mitigation measures and monitoring of air discharges. Mr Crimmins' proposed amendments have been included in the set of proposed conditions at **Appendix U**.

³⁶ Document 27, America's Cup Preliminary Site Investigation (Contamination), Beca, April 2018, Appendix F 'Draft Remediation Action Plan'

9.4.6. On the basis of the expert information provided with the application and the review undertaken by Mr Crimmins I consider that effects on air quality overall will be less than minor subject to compliance with the proposed measures in the RAP and the amended conditions proposed by Mr Crimmins.

9.5. Coastal Processes

9.5.1. The subject site is located in Freemans Bay and is considered a modified coastal environment. The natural shoreline is located between 650 and 1300m landward of the existing line of mean high water springs (**MHWS**) due to previous reclamation and associated structures. The elements of the proposal which will impact on the CMA include the dredging, installation of four breakwaters, temporary infill to Wynyard Wharf, an extension to Hobson Wharf, installation of wave attenuation panels to Hobson and Halsey Wharf and temporary marine and port structures and facilities within the Wynyard Wharf South water space and Outer Viaduct Harbour, and placement of mudcrete. The applicant has provided a technical report prepared by Beca (Document 16 of the Application) which addresses the effects on coastal processes arising from the development, including tidal currents, wave and wake climate, basin flushing, sedimentation, dredging and sea level rise. The assessment relates to three specific areas of water space, being the Outer Viaduct Harbour, Wynyard Wharf South and the Inner Viaduct Harbour.

9.5.2. Hydrodynamic modelling of tidal flows in the lower Waitemata Harbour were undertaken by the applicant to determine the extent of effects on tidal flows and currents arising from the proposed coastal structures. The modelling results concluded that the main harbour current velocities are not likely to be affected by the proposed infrastructure. The Outer Viaduct Harbour, Wynyard Wharf South and the Inner Viaduct Harbour will be subject to lower velocities. Mr Morgan, on behalf of Council has reviewed the modelling details and technical report and states (at paragraphs 3.3.2 and 3.3.8, **Appendix C**):

It is considered that due to the location and scale of the proposal in the context of the existing development, it will have a negligible impact on tidal levels or currents within the wider Waitemata Harbour. ...

Overall, the modelled water velocities through this part of the proposed works are between 0.1 and 0.5m/s and the changes are not considered significant enough to have an impact on bed stability or on the surrounding environment. ...

9.5.3. The movement of water around and out of the areas of water space, referred to as 'basin flushing', is affected by the proposed coastal structures. The technical report prepared by Beca notes that basin flushing within the Wynyard Wharf South water space and the Outer Viaduct Harbour basin flushing time remains in the "good" category whilst water exchange in the Inner Viaduct Harbour will fluctuate between a 'good' to 'fair' category. Mr Morgan notes that due to the proposed increase in the length of the basin entrance between the Viaduct Wharf and Hobson Wharf and the introduction into the locality of additional wave attenuation panels flushing capacity will reduce and flushing times will increase. Mr Morgan has not expressed any concerns relating to basin flushing although he has recommended that continued monitoring of the situation should occur through the development of a monitoring and management plan required through a condition of consent.

9.5.4. Sedimentation rates are likely to increase within the basins due to the reduction in tidal velocities and notably within the Wynyard Wharf South water space due to the creation of a more tranquil environment for the boats. Mr Morgan notes (at paragraph 3.6.7):

Overall, the proposal will result in increased sedimentation as a result of diminished water velocities. Sedimentation will predominantly occur in waterspace managed by the applicant and they will be responsible for maintaining appropriate water depths. The area is currently subject to a maintenance dredging programme. In a worst-case scenario the frequency of maintenance dredging may need to be increased slightly. Overall, the impact of increased sedimentation in these areas is considered to be less than minor.

- 9.5.5. In order to achieve suitable access and berthing associated with the event the applicant is undertaking dredging of 87,000m³ within the Wynyard Wharf South water space, the Outer Viaduct Harbour and the access channel. Approximately 70,000m³ of the dredged material will be disposed of offshore with approximately 8,000m³ disposed to an approved landfill/cleanfill facility. The dredging will be undertaken using a backhoe dredger which will operate from a barge. The spoil material is then to be transferred to a hopper barge for disposal. There is the potential for a localised sediment plume to be created however based on the expected sediment levels and comparing it to the natural sediment flux within the wider harbour, it is expected that the works will represent approximately 1.2% of natural sediment dynamic fluctuations within the harbour and therefore will not result in significant changes to sediment concentrations.
- 9.5.6. It is considered that the proposed structures due to their location and scale will not increase the potential impact of sea level rise. In the event of future sea level rise the applicant is proposing the use of wharf piles that can be extended to adjust the height of the wharf deck to continue its usability.
- 9.5.7. Submissions have been received which comment on the following in relation to coastal processes:
- a. Filling the area to the west of Hobson Wharf rather than extending the structure 75m seaward.
 - b. Cumulative effects arising from further development in the harbour.
 - c. Provision for additional berthage at the eastern base of Queens Wharf with additional fender piles to allow for safe berthage.
 - d. The proposed breakwaters will not create the calm waters required for the boats.
- 9.5.8. In response to these concerns Mr Morgan notes the following:
- a. Without the benefit of seeing any design for filling the area to the west of Hobson Wharf, as suggested by a submitter, there may be issues with a wharf extension in this location due to issues with a reduction of tidal prism and flushing potential of the Viaduct Basins, particularly if fill material was used would reduce the overall water volume in the area and present a physical barrier to water movement.
 - b. The proposed development represents approximately a 1-1.5% increase in development in the wider area of reclamation as taken from the original shoreline. This increase in development is considered minor and given the location of the works is within an area of existing development and does not result in any further extension into the harbour beyond existing structures such as Wynyard Point and Princes Wharf, the cumulative effects are considered to be less than minor in this instance.
 - c. Without seeing any details of additional berthage at the eastern base of Queens Wharf it is difficult to comment on the effects however Mr Morgan states that given the nature of the proposed works and the existing modified environment it is unlikely development of this nature would present effects that would be any more than minor.
 - d. Mr Morgan as part of his assessment has considered the effectiveness of the wave panels proposed and disagrees with this comments. The proposed pre-cast concrete wave panels are similar in nature to the existing situation to provide shelter to the Viaduct

Harbour and dampen wave energy to an extent that will provide sufficient calming to the water.

- 9.5.9. In terms of the proposed conditions in Document 7 Mr Morgan is in agreement with these although he has recommended changes to include the Wynyard Wharf South water space area in to the monitoring program and for monitoring to be increased to once every 3 months.³⁷ It is also proposed to amend condition 53(c) to place the onus on the applicant to demonstrate that there is no change in the dredge materials. Mr Morgan's proposed amendments have been included in the set of proposed conditions at **Appendix U**.
- 9.5.10. On the basis of the information provided, and having regard to the technical review undertaken by Mr Morgan the effects in terms of coastal processes will not be any greater than minor given the nature of the proposed works, the mitigation measures to be undertaken and having regard to the already modified nature of the coastal environment in which the development will be located.

9.6. Coastal Ecology

- 9.6.1. As previously noted the development will contain works within the CMA, including dredging, the construction of wharf extensions and breakwaters, and the installation of wave attenuation panels. Section 10.9 of the AEE and Document 17 of the application addresses effects on coastal ecology. The applicant reaches the following conclusions with relation to effects on coastal ecology:
- a. The extension to Hobson Wharf and the Wynyard Wharf infill along with the proposed pontoons will reduce light levels to the seabed, however, due to the nature of the current ecology, this will not have adverse effects considered to be greater than minor and new communities are expected to form on the new structures reflective of the new levels of light.
 - b. The dredging works will result in changes to the benthic habitat however given that this area of the CMA is currently subject to maintenance dredging and vessel movements, ecological values are considered low and dominated by tolerant communities that can withstand these conditions.
 - c. The dredging will not result in local increases to concentrations of suspended solids to an extent that is expected to change water clarity; and any release of contaminants during dredging is unlikely to have an adverse effect on water column due to contaminant levels and dilution factors.
 - d. The proposal will increase vessel movements within the harbour, both during the construction period and during events. There is the potential for the increased vessel movement to increase the infestation of unwanted and/or biosecurity risks and therefore the works will be undertaken in accordance with a 'Biosecurity Management Plan'.
 - e. There are a low number of seabirds within the area with no known nesting sites and limited roosting sites.
 - f. There is no specific fish species dependant on the habitat within the harbour and the area of construction.

³⁷ Document 7, conditions 117-119, page 26

- 9.6.2. Dr Sivaguru has reviewed the technical reports related to coastal ecology matters (**Appendix B**) and in terms of the changes and loss of habitat notes that whilst the proposal will result in increased shading the effect on benthic communities will not be significant as the area is already impacted by a reduction in light and increased sedimentation rates, and the benthic communities are likely to be tolerant to these changes due to the existing environment. The placement of piles is expected to result in the loss of an area of subtidal benthic habitat however the structures themselves will provide hard substrate for encrusting organisms. There is no flora in the area which could be affected by the change in shading arising from the proposed structures. Given that the existing environment is highly disturbed any effects in terms of contamination and sedimentation is considered to be acceptable. Overall Dr Sivaguru concludes (at paragraph 2.55) *“that any potential adverse effects on marine ecology including avifauna, marine mammals, sediment and water quality resulting from the proposal would be minor”*.
- 9.6.3. The recommendations by Dr Sivaguru in relation to the proposed conditions of consent include alterations to the conditions pertaining to ‘Biosecurity Management Plans’ (conditions 114-116) to ensure this is addressed prior to the installation of any infrastructure, rather than at the time of decommissioning, as proposed by the applicant. In addition, condition 69 needs to be amended to align the frequency of water quality monitoring reports with the obligation in condition 56 to undertake monitoring once per week while dredging and any placement of material in the CMA is underway. Dr Sivaguru’s proposed amendments have been included in the set of proposed conditions at **Appendix U**.
- 9.6.4. Submissions have been received which refer to environmental damage arising from the pouring of concrete for the construction of the Hobson Wharf extension. Dr Sivaguru notes that the proposed ‘Construction Environmental Management Plan’ conditions (proposed conditions 29-33) as they relate to discharge to the CMA will manage any effects during construction.
- 9.6.5. A submission was also received by the Westhaven Marina Users Association Inc. suggesting that the two leopard seals which have been occasionally spotted within the area of works are to be relocated. In the event of these seals being sighted within the area of proposed works, it is recommended by Dr Sivaguru that the applicant informs the Department of Conservation who would manage the issue in accordance with the Wildlife Act 1955 and Marine Mammal Protection Act 1982.
- 9.6.6. Overall, it is considered that given the existing environment is highly modified and taking into account the technical comments as noted above, the effects in terms of the ecological functioning of coastal environment in the subject area are deemed to be minor.
- 9.7. **Tree Removal**
- 9.7.1. Land disturbance works to facilitate the development includes the removal of up to seven trees growing within the road reserves of Brigham and Hamer Street, and an additional unprotected tree and a group of shrubs at No. 90 Brigham Street. Three of the trees within the Brigham Street road reserve will need to be removed as they conflict with the location of Bases C-G. Four trees within the Hamer Street road reserve are outside the footprint of any of the base buildings and it may be possible to retain these trees however without knowing the detailed construction details the retention of these trees cannot be guaranteed and therefore consent is being sought for their removal. Works will also need to be undertaken in the root zone of up to fourteen street trees.

- 9.7.2. Given the location of the trees predominantly within the road reserve, and forming part of an urban environment, they do not provide any significant benefits in terms of ecology, hydrology and stability. Mr Lamont, the Council's consultant arborist has reviewed the application details (**Appendix R**), including Document 18³⁸ of the application, and is satisfied that the proposed tree works are acceptable. With the exception of Tree 1³⁹, the protected trees have poor shape and form due to extensive pruning and only make a modest contribution to the visual amenity of the area. Whilst they do add to the visual amenity values of the area and the streetscape the applicant is offering as a condition of consent, replacement planting of one tree 5m in height for every tree to be removed, which will ensure that in the future the road reserve will have elements of green to provide relief from the built environment. Tree protection measures are to be installed around those trees to be retained within the area of works to ensure their ongoing health and well-being.
- 9.7.3. It is noted that at the time of writing this report, asset owner approval from the Council's Community Facilities for removal of the street trees had not been obtained and this will be needed prior to any works commencing.
- 9.7.4. A submission has been received which supports the transplanting of the trees upon removal, in particular Tree 1 (submission #32). Mr Lamont is in agreement on this matter, and due to the good health and form of this tree it is recommended that the tree is transplanted. It is the intention of the applicant to transplant this tree, and any others if deemed healthy for transplantation.
- 9.7.5. The proposed conditions in Document 7 mention tree works in conditions 33(m) and 120-135⁴⁰. Mr Lamont considers these conditions are suitable however has recommended that Tree 18 is included in conditions 120 and 125 which relate to 'trees to be retained'. As the arborist report in Document 18 refers to the retention of Tree 18 then it is appropriate to include this tree within conditions 120 and 125. Mr Lamont has also recommended the following additional conditions to be imposed:
- a. The appointed arborist shall provide advice during the detailed design phase and development of the construction methodologies and enabling works to be undertaken in Hamer Street to ensure the potential effects on trees and the number of tree removals required are minimized.
 - b. All reasonable care shall be taken during the works to ensure that the trees within Hamer Street that are growing outside the project area are retained in a safe and healthy condition. Only in instances where the Appointed Arborist (taking into consideration the tree species, age, condition and tolerance to damage, root zone disturbance and pruning) can demonstrate to the satisfaction of Council's Arborist that the stability and / or long-term health of a tree is likely to be compromised by the works may the tree be removed.
 - c. If feasible and proportionate to the value of the tree (in the opinion of the Appointed Arborist), any tree to be removed may be transplanted to another location or stored and replanted back within the vicinity of the project area, subject to the approval of Council's Arborist.
 - d. All works required to install services within Jellicoe Street shall be undertaken outside the below-ground rain garden structures.
 - e. The Consent Holder shall supply a completion memorandum to the Team Leader Compliance Monitoring – Central upon completion of all works on site. This memorandum shall include minutes of the pre-commencement meeting that is required

³⁸ Document 18, Arboricultural Assessment Report, Arbor Connect, April 2018

³⁹ Document 18, Arboricultural Assessment Report, Appendix D 'Tree Location Plan', Page 18

⁴⁰ Document 7, condition 33(m), page 8 and conditions 120-135, pages 27-29

as a condition of consent, a log of all site visits and actions undertaken by the Appointed Arborist, confirmation of the number, size, species and location of all replacement or transplanted trees, and confirmation that all required tree protection measures were adhered to for the duration of the works.

9.7.6. These conditions are not considered onerous and will ensure that the construction methodologies proposed will protect the health and longevity of vegetation within the development area. Mr Lamont's proposed amendments have been included in the set of conditions at **Appendix U**.

9.7.7. Overall, it is considered that in terms of vegetation removal and alteration, the level of effects will be less than minor as the subject trees do not provide any significant ecological or stability values and the visual effects can be mitigated through the use of re-planting or replacement planting.

9.8. **Landform Modification**

9.8.1. Earthworks will be undertaken over an area of approximately 25,400m² in association with ground improvement works, construction of new services, piling, creation of building platforms and re-paving. The earthworks will consist of a total volume of 10,607m³.

9.8.2. The area of earthworks is generally flat and mostly consists of impervious area. Due to historical land use the area is known for contamination issues. The applicant is proposing to undertake the earthworks in accordance with a number of erosion and sediment control in accordance with the Auckland Council's Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region, Guideline Document 2016/005 (GD05) and has outlined the following mitigation measures:

- a. Acknowledging the contaminated nature of the soils and directing dirty water to retention facilities where flocculation will occur to reduce levels of total suspended solids to improve water quality levels before being discharged.
- b. Stabilised construction entrances and possible wheel washes to reduce sediment tracking onto the surrounding road network.
- c. Installation of clean water diversion bunds around the area of works.
- d. Protection of surrounding stormwater cesspits from contaminants through the use of geotextile filter cloth and silt socks or the capping of existing stormwater infrastructure.
- e. Stockpiles of soil to a height of no greater than 3m to be covered with polythene.
- f. Progressive stabilisation of the works to limit the extent of exposed areas.

9.8.3. The Council's earthworks specialist, Ms Harte, has reviewed the application (**Appendix Q**) and is comfortable with the proposed works methodology subject to a more detailed sediment and erosion plan being submitted prior to works commencing, and adherence to the proposed conditions of consent. Ms Harte proposes that the applicant's proposed conditions relating to erosion and sediment control conditions (condition 70 onwards) be reorganised and amended to minimise repetition. She sets out the detailed amendments to those conditions at paragraphs 6.8 and 6.9. Ms Harte also recommends (at paragraph 6.7 of her report) that the staging details and the sequence of construction, including the open areas of earthworks, and the indicative timing of the site-specific Erosion and Sediment Control Plans are included as part of the construction works programme in the CEMP (condition 32(b)). Ms Harte's proposed amendments have been included in the set of conditions at **Appendix U**.

9.8.4. No submissions have been received which are relevant to the proposed earthworks.

9.8.5. It is considered that overall the extent of the earthworks taking into account the site area is not significant. Although the area of works is within close proximity to the coast, appropriate erosion and sediment control techniques will be utilised throughout the period of works and any sediment discharge into the receiving environment will be minimised. I therefore consider that, subject to compliance with the proposed conditions (amended in accordance with Ms Harte's recommendations), the adverse effects arising from the earthworks activity will be no greater than minor.

9.9. Lighting

9.9.1. During the construction period it is intended to work through the night and therefore temporary lighting will be required. Construction lighting will be provided around the working areas on poles 12-18m in height with zero tilt floodlights. The extension to Hobson Wharf and for the syndicate bases lighting will be provided consistent with existing surrounding lighting fixtures and which generally consists of lighting poles 8m in height with zero tilt luminaires. Event lighting has yet to be developed however it is anticipated that temporary lighting will be installed around the primary entertainment areas which includes Eastern Viaduct, Te Wero Island, North Wharf, Jellicoe St carpark and Silo Park. Prior to an event commencing the application is recommending through a condition of consent that a Lighting Management Plan is to be submitted to Council which details the lighting layout in relation to surrounding light sensitive areas and demonstrates compliance with the AUP lighting standards.

9.9.2. Light sensitive locations have been identified in the technical report prepared by Mr Wright, on behalf on Council (**Appendix O**),⁴¹ and includes the surrounding hotels, the closest being the Park Hyatt Hotel and the Hilton Hotel, and also existing and developing apartment complexes. The applicant has stated that during construction and through the event phase, lighting will comply with the relevant standards in the AUP, as contained in section E24 'Lighting'. Mr Wright has concluded within his review that provided the final design and installation of the proposed lighting complies with the relevant conditions of consent its effects will be less than minor and no adverse effects on ecological resources in Freemans Bay are expected to occur.

9.9.3. The applicant is not seeking consent to infringe any lighting standards and therefore it is considered that in terms of lighting, effects on surrounding light sensitive uses and the marine habitat will be no greater than what can occur as a permitted activity. Lighting standard E24.6.1(6) states that the added illuminance from the use of any artificial lighting of any site must not exceed either the horizontal and vertical illuminance levels as specified at any point on the boundary, **or** the vertical illuminance levels at the windows of habitable rooms of a lawfully established dwelling. While the rule is framed on an either / or basis, it appears to deal with two different considerations: illuminance at the boundary of a site, and illuminance at the windows of dwellings. Mr Wright states that based on the type of lighting proposed it is expected lighting can be designed to meet both standards. However, when assessing the level of effects experienced by an occupier of a residential unit the level taken at the windows of dwellings is, in his opinion, a better indicator of the magnitude of effects and Mr Wright recommends a condition requiring compliance with E24.6.1(6)(b). I rely on Mr Wright's expertise on this matter and am satisfied that Mr Wright's proposed approach, of applying the limits at the windows of dwellings under rule E24.6.1(6)(b), is appropriate.

⁴¹ Appendix O, Lighting Review Report, Figure 1, page 4

- 9.9.4. Two submissions received have included comment on lighting. Submission #39 has requested that 'The Point Body Corporate' is included within the conditions as a consultee in relation to the drafting of the various management plans, and specifically notes being adversely affected by lighting. As the applicant is not proposing to infringe the lighting standards it is considered that adverse effects in terms of lighting will be no greater than what may occur as a permitted activity. However, it is recommended that nonetheless, due to the overall effects throughout construction, adding 'The Point Body Corporate' to the list of consultees when drafting management plans is sensible. Submission #13 recommends that lit flags are installed atop the VEC building. The applicant is not proposing this and I do not consider it appropriate due to the projection of light this would have on the night sky and any adverse effects in terms of amenity, and I note that Mr Wright expresses a concern about the obtrusive nature of this proposal.
- 9.9.5. Mr Wright has recommended various amendments and additions to the conditions, which are reflected in **Appendix U**, including to address illuminated signage (condition 202) and 'business as usual' / BAU lighting (condition 203).
- 9.9.6. Overall it is considered that the construction and event lighting, given that they are not expected to exceed permitted levels, are appropriate and will not create adverse effects.

9.10. **Landscape and Visual Effects**

- 9.10.1. The site forms part of a highly modified coastal environment. The area is characterised by a number of coastal structures with a mix of uses, including residential, commercial, visitor accommodation, hospitality, and industrial uses. The predominant commonality between these uses is the relationship with the water and adjoining coast, either providing for marine related services or those reliant on the close proximity to the coast, or activities such as restaurants or residential units, which utilise views of the coast as an attraction. Proximity of access to the water for the public is an important feature of the subject area and there is an existing highly used public access route in an east-west axis connecting the central city along the water edge to Silo Park. The applicant has provided a Landscape and Visual Effects assessment prepared by Mr Goodwin, Boffa Miskell⁴² which addresses the effects on natural character, landscape values and the visual amenity of the area. Mr Goodwin has used a seven point effects rating scale commonly used by landscape architects and which rates effects on a spectrum between 'very low' to 'very high'.⁴³ Mr Goodwin has considered effects on natural character, landscape and visual amenity from a range of private and public vantage points⁴⁴. The report prepared by Mr Goodwin has been peer reviewed by Mr Kensington on behalf of Council (**Appendix E**) and who has also utilised the same effects rating as Mr Goodwin.

Natural Character

- 9.10.2. The site and surrounding area is formed by historical reclamation of the Waitemata Harbour and given the degree of structures extending into the harbour and the built development surrounding the water space, there are very low natural character values attributed to the area.

⁴² Document 11, Landscape and Visual Assessment, Boffa Miskell, April 2018

⁴³ Document 11, Section 2.3, page 4

⁴⁴ Document 11, Table 3, page 16

9.10.3. Mr Goodwin in his assessment notes that there are no remnants of naturalness associated with the land but interaction with the water on the coastal edge does provide a degree of naturalness. The proposal will result in additional structures within the water, including wharf extensions, breakwaters, wave attenuation panels and pontoons. The purpose of some of these structures is to create a tranquil water space for the racing boats. Whilst these structures do change water movement within the area, the wave action will not be dissimilar to what already occurs within the Outer Viaduct Harbour. Overall, due to the modified nature of the surrounding harbour it is considered that the development during the event and in legacy mode will have a low adverse effect on natural character values. Both Mr Goodwin and Mr Kensington are in agreement relating effects on natural character values.

Landscape Effects

9.10.4. Landscape effects are those related to change in features of the overall character of an area and takes into account natural features and all other elements including the built environment, areas of open space and recreational activities. The report prepared by Boffa Miskell notes that *“the most valuable landscape features within the Freemans Bay and Viaduct Harbour/Wynyard Precincts are the designated areas of open space associated with the parks and plazas in the area (Silo Park, Karanga Plaza and Waitemata Plaza); the continuous public access around the water’s edge; the characteristic built features of the historic Te Wero lifting bridge, the Wynyard Crossing bridge; and the many and varied vessels that are moored in the water space.”*⁴⁵ I consider this to be an adequate description of the area in terms of the landscape features.

9.10.5. The changes to the natural landscape will not be significant as the earthworks is predominantly the scraping of topsoil to create level building platforms and the vegetation removal will be mitigated by way of either replacement planting or relocation of the trees removed.

9.10.6. With regard to the built form, the removal of the tank farms on Wynyard Point will result in positive effects in terms of landscape character. The base buildings will be more in keeping with buildings in the wider area associated with marine activities. However, overall the proposed development will create a noticeable change, in particular, due to the building on the Hobson Wharf extension to accommodate Base B, although it is noted that it is expected to be removed after a ten year period. Overall the buildings will facilitate marine activities and generate greater movement within the Harbour, and while the level of activity associated with each base will vary over the ten year period they will add to the character of the area and particularly during the event phase, creating a vibrant atmosphere. The additional breakwaters, extension to Hobson Wharf and the areas of public open space will also contribute to activity within the area as will provide improved areas for port activities in the future, greater recreational opportunities with increased pedestrian/cycle ways and greater connections with the Harbour for recreational activities such as fishing.

9.10.7. Both Mr Goodwin and Mr Kensington agree in relation to the effects of the proposed development of landscape character in that benefits to the landscape character will occur as a result of increased public amenities and will have low to very low adverse effects on the landscape features and wider character of the area.

Visual Amenity

9.10.8. As previously noted, the visual impacts of the proposed development have been considered from a number of public and private vantage points and views have been considered for each phase of the development, including construction, operational and in the legacy stage.

⁴⁵ Document 11, Section 8.2.1, page 35

- 9.10.9. In terms of visual effects, the assessment undertaken by Mr Goodwin predicts a range of visual effects ranging from beneficial to low adverse effects, and overall he considers that visual effects will be less than minor apart from specific viewpoints within the Princes Wharf apartments which will have a view of the extension to Hobson Wharf and the associated syndicate base building and event activities. The effects on the occupants of these apartments are considered to be minor.
- 9.10.10. Mr Kensington differs in opinion to the level of effects from some vantage points however the difference in opinion is not significant and overall the proposed development is considered appropriate in terms of landscape, character and visual effects. One specific point of difference though is the level of effects associated with the Hobson Wharf extension. Mr Kensington considers (at paragraphs 30-31) that there will be a “moderate” and more than minor adverse visual effect for viewers from private viewpoint P1 (and other apartments with similar views) within the Princes Wharf apartments in legacy mode. He nonetheless regards these effects as acceptable. I note that these adverse effects are limited to the legacy mode; Mr Kensington is of the view that effects from this viewpoint will be “moderate-low” (and therefore minor) during the event phase.
- 9.10.11. The extension to Hobson Wharf and the building associated with Base B is considered to be the most visually prominent aspect of the proposed development. I have not had the benefit of visiting any apartment within the Princes Wharf, however I do note from undertaking a site visit that there are apartments which will have direct views of the Hobson Wharf extension and Base B which, depending on location and floor, will experience an obvious change to the existing outlook of the Harbour towards the Harbour Bridge. Mr Kensington has raised concerns regarding the Hobson Wharf extension in the legacy phase and states that there is the potential for localised more than minor adverse visual effects for viewers at specific viewpoints within the Princes Wharf apartments following the event.⁴⁶
- 9.10.12. Both Mr Kensington and Mr Goodwin have raised concerns in relation to the large expanse of area on Hobson Wharf following the expiration of the consent and the subsequent removal of syndicate Base B (with Mr Kensington, as noted, identifying potentially “moderate” / more than minor visual effects from viewpoint P1). Therefore Mr Kensington recommends a condition of resource consent be imposed that requires the consent holder to submit for approval, details concerning the ongoing use of the Hobson Wharf extension following the removal of Base B. I have recommended conditions to address this in **Appendix U** (see condition 7B in particular).
- 9.10.13. A number of submissions received have commented on the visual and landscape effects arising from the proposed development. In particular the following aspects have been commented on:
- a. The visual impact of the 74m extension to Hobson Wharf and the associated structures proposed of the wharf.
 - b. The visual obstruction from syndicate Base Building B. In the event the building is erected it should be limited to the AC36 event only and removed upon the completion of the event. The ten year consent duration is considered too long.
 - c. Provision for flexibility around the design of the base buildings without the need for further approvals to be sought from Council.
 - d. The VEC should be permitted to be decorated with associated bunting/flags/lighting.
 - e. Cultural design should be incorporated into the base buildings and open spaces.
 - f. Adverse visual effects arising from advertising.

⁴⁶ Appendix E, section 54

- g. Loss of views from the restaurants and bars on North Wharf due to the berthing of the super yachts, breakwaters and safety barriers.
- h. Visual effects from construction activities which should be mitigated by measures within the construction management plans.

9.10.14. In response to these submissions, I note the following comments:

- a. Based on the findings of both landscape architects, the intrusion into the harbour for the extension to Hobson Wharf and the associated structures are considered to be acceptable from a landscape character and visual effects perspective.
- b. Proposed conditions 23 and 24 provide some flexibility around the design guidelines when designing each specific syndicate base, however whilst there is a need for some design flexibility this needs to be balanced with the need to provide certainty of an outcome for the public.
- c. Flags, bunting and appropriate lighting on the VEC building will add to the festive atmosphere of the proposal (subject to the concern expressed by Mr Wright at paragraph 6.4 of his report concerning flashing/strobing light).
- d. Incorporating cultural design into the open spaces is supported and the applicant should continue engagement with the submitter (Ngati Whatua Orakei) in order to achieve this outcome.
- e. Superyachts are to be berthed adjacent to the Halsey Street Wharf Extension however are not proposed to be located directly adjacent to North Wharf. This position of the superyachts will ensure a level openness from North Wharf and continue views out into the harbour for the cafes along this aspect. My recommended amendment to condition 13 will ensure that superyacht berthage is limited to the areas shown on Urban Design Figure 20 in DS1 (the "Water Use" plan). It is acknowledged that superyachts will be visible, however they will not obstruct views completely. The superyachts themselves can be perceived to be an added visual attraction to the area and will draw people to them.
- f. Temporary screening during the construction period should be erected and form part of the construction management plan to address adverse visual amenity effects.

9.10.15. Mr Kensington is in general agreement with the proposed conditions by the applicant although he has recommended changes to conditions 23 and 24 (which Ms Skidmore supports) to strengthen the wording of these conditions and ensure good urban design outcomes are achieved whilst still providing the applicant with some flexibility around design. He and Ms Skidmore also support my amended conditions 6, 6A, 7 and 7A – C, which address – among other matters – the legacy use of the Hobson Wharf extension.

9.10.16. Overall, I agree with the findings from both Mr Goodwin and Mr Kensington, that the proposed development will be acceptable when having regard to natural character, landscape and visual effects in a general sense. The site is located within a highly modified environment that does not contain high natural character and landscape values, and the proposed development whilst does result in an encroachment into the water space through the extension to Hobson Wharf, further reclamation of the harbour is not required to achieve this development and the degree in which structures are protruding into the Waitemata Harbour does not increase. However, when having regard to the visual effects on some residents within Princes Wharf, without the benefit of seeing the proposed extension to Hobson Wharf from their perspective, I agree with Mr Kensington on this matter and consider that the extension to Hobson Wharf has the potential to create a more than minor adverse visual effect for viewers at specific viewpoints within the Princes Wharf apartments following the event.

9.11. Character and Amenity

- 9.11.1. The subject site is located within the Wynyard and Viaduct Harbour Precincts and includes both land and the surrounding CMA.
- 9.11.2. The Wynyard Precinct is an area of brownfield at the north-western end of the city centre, including an area of CMA to the west and north. The precinct provisions seek to redevelop the area in a comprehensive and integrated manner whilst still enabling the continued operation of the marine and hazardous industries. It is intended that the precinct is redeveloped to create an area which is vibrant and home to a number of activities that are predominantly focused on the relationship with the harbour and also provides a network of connected high quality public open spaces and public access routes. Built form should complement the city centre and should be of a height and form which reflects the marine attributes of the precinct and provides public open spaces and protects identified view shafts.
- 9.11.3. The Viaduct Harbour Precinct encompasses Viaduct Harbour and the area of land fronting the harbour, and the adjoining CMA. The purpose of the precinct provisions is to maintain and enhance the character of the area whilst providing for a mix of recreation, leisure, retail, entertainment and community/cultural activities along the edge of the water and also residential development further inland. Building form should be of a height and bulk that complements the surrounding built environment, including those in the Downtown West, Central Wharves and Wynyard precincts and should provide for a transitioning of height between the city centre and the harbour.
- 9.11.4. Both precincts place an emphasis on creating high quality public open spaces, access to the harbour, and creating strong pedestrian, cycle and public transport networks. The vibrancy of the precincts is created through the mix of activities provided for within each of them and activities are generally focussed on utilising the adjoining harbour, servicing marine based activities or taking advantage of the harbour views.
- 9.11.5. The AEE has assessed character and amenity effects in section 10.2 of the AEE and concludes (at 10.2.4):

...from an overall land use and built character perspective the proposed wharf extensions and associated buildings/structures are appropriate within this location and will contribute positively to the locality by increasing public amenity, interest and vibrancy to the new development. In particular, the proposed land use will be consistent with the existing marine and open space focussed land use character of the area, which the built form and ancillary structures will also reflect. Views to the water will also generally be retained.

While the proposal will later the character of the immediate locality, by creating more intensive use of this part of the waterspace, it is considered appropriate within the highly modified character of this central city area and given that the most visible built elements (the bases) will be temporary. Further, the existing occupation permit anticipates this location being used for marine and port purposes, which have a functional need to be located there, while buildings are anticipated on the Western Viaduct Wharf.

No expansion north of the existing port management areas or waterfront precinct boundaries is proposed.

In terms of amenity, the following elements of the proposal will improve people's appreciation of the area:

- *The additional public access to the coastal edge and plaza spaces, and the ability to view America's Cup boats being launched and lifted out of the harbour before and after races;*

- *Potential for the public (particularly children) to access the ETNZ base and interact with yacht racing equipment;*
- *Active edges with the syndicate bases where the public can view and appreciate base operations;*
- *Landscaping of the public access areas;*
- *The establishment of additional vessel berthage and views of visiting vessels;*
- *High quality designed syndicate bases;*
- *Additional calm waterspace.*

The above elements will ensure positive amenity outcomes while ensuring any character effects have been appropriately taken into account. The proposed Wynyard Hobson waterspace development will contribute significantly to the aesthetic appeal of this part of the waterfront and will continue to provide for the social outcomes of Auckland's maritime community.

- 9.11.6. I consider that the overall proposed layout of the event and associated infrastructure will contribute to the character and amenity of the area. The proposed buildings will be designed to reflect the maritime character of the area and complements the scale of existing buildings within the locality.
- 9.11.7. Additional areas of open public space will be provided through the development with the proposed breakwaters and extension to Hobson Wharf which will enable greater access to the harbour and increases the pedestrian network and vantage points. Access will however be restricted to the east of the VEC building and also along Wynyard Wharf. Given that the consent is to have a life span of ten years the potential restriction on public access to certain parts of the water edge is considered significant. However it is likely that, during this ten year period, public access can be provided along Wynyard Wharf in the event that Bases C – G are vacant, and also to the east of the VEC building if the ETNZ are no longer operating from the site. Whilst it would be preferable that public access to all areas of the coast is maintained, given the manner in which the syndicates operate and the need to have direct access to the water for the boats, public access will be impeded during occupation of Base A and Bases C-G. Ms Skidmore has noted in her assessment (at paragraph 4.21) that the restriction on access adjacent to the water to the east of Bases C-G for a period of ten years creates a more than minor effect in relation to the public access network. It is recommended that, to minimise the effects of restricted public access in these localities, a condition is imposed which requires access to the public to be opened up in the event that these are bases are not being occupied. This is preferable to having a ten year period of restricted public access to the coast, and in the event that access is opened up periodically during the ten year period, she notes that adverse effect would be reduced to a 'minor' level.
- 9.11.8. There is some tension between the provision of public access on Wynyard Point while attempting to minimise risk to society with the operation of the hazardous and dangerous goods facilities on the northern part of the Point. Proposed condition 172 of the application requires a design of the public realm to discourage public access to Hamer Street and Brigham Street, to the north of Base C, where hazardous industries and dangerous goods facilities are located. Ms Skidmore acknowledges the rationale behind this condition however from an urban design perspective considers the long term provision of connectivity for pedestrians and cyclists around Wynyard Point is important. I recommend a minor amendment to condition 172 in Appendix U, to cross-reference to the process in condition 25 relating to public space design. In the absence of this amendment, there appears to be no direct opportunity for Council input.

- 9.11.9. The applicant is proposing public open spaces along the waterfront which will tie in with the existing network of open spaces and will provide for a range of activities during event and legacy mode. There is some concern however with the extension to Hobson Wharf and the proposed plaza space, particularly in legacy mode. The extension is not well connected to the waterfront axis and does not contribute significantly to the open space network outside of the event(s) phase. It is recommended that further consideration is given to the use of this space in legacy mode and Ms Skidmore notes that the area is better suited as a destination with a purpose built facility rather than as a general open space for public realm events. It is suggested that a management plan for this space in legacy mode is developed to ensure that in the long term it contributes to the vibrancy and character of the area.
- 9.11.10. A number of submissions have been received which make reference to character and amenity with the following issues raised:
- a. The importance of pedestrian and cycle connections through the area and protecting and enhancing these facilities.
 - b. Flexibility around the design guidelines.
 - c. Incorporation of cultural elements into the development.
 - d. Relocation of the fishing industry.
 - e. Maintaining accessibility to the water front for marine based industries.
 - f. Lack of ability for use of the VEC for events during the ten year period.
- 9.11.11. In response to these concerns I make the following comments:
- a. The proposal is increasing the pedestrian and cycle routes through the area with the increase in breakwaters and wharf extensions. It is acknowledged that the development of Bases C-G and the use of the VEC building will restrict access adjacent to the water's edge, this restriction will be for temporary periods and access for pedestrians and cyclists can be gained to the west of these base buildings. As part of the transport management related plans, further details in relation to pedestrian and cyclists during construction and the event phase will be considered to ensure that adequate facilities are provided, with safe and accessible routes and also provision for parking of bikes in public spaces.
 - b. The applicant is seeking flexibility with the design of the buildings so that each can be tailored to meet the requirements of the occupants. Notwithstanding this, the applicant recognises that buildings within Wynyard Precinct need to reflect existing development and the relationship with the water, and result in good urban design outcomes. As such, the applicant has provided an urban design report with recommended design guidelines to ensure that the buildings will be functional, of a high quality and respond well to the water and public spaces. Ms Skidmore has assessed the design guidelines and, subject to recommended changes to conditions and to the Guidelines themselves (as discussed further below), considers that they strike an appropriate balance between providing certainty of effects and allowing design flexibility.
 - c. Proposed condition 22 by the applicant refers to further engagement with mana whenua concerning the provision of cultural markers to recognise the historic associations of mana whenua with the area and the significance of the land and seascapes of Tikapa Moana to mana whenua. It is recommended, as Ms Skidmore suggests, that this design requirement be referenced in the Guidelines to ensure an integrated design process.
 - d. The fishing industry adds to the character of the area and creates a 'working' atmosphere and can be an attraction in itself. To facilitate the development, the fishing industry will need to be temporarily relocated, however while no specific relocation position has been

identified at the time of writing this report, it is anticipated that it will still be within the wider harbour area and continue to add to the authenticity of a 'working' harbour.

- e. The proposed development does not require removal of any marine based industries to facilitate its development and does not restrict access for industries operating in the locality that require access to the harbour. In some instances, the development will increase the level of business activity for some marine based services.
- f. The fact that the VEC will not be available to hold events for the ensuing ten years is a loss, however there are other venues within the area that have the potential to hold events and Regional Facilities Auckland, as the operator of the VEC is encouraged to assist in arranging alternative arrangements for those who have previously held events in the VEC on a regular or recurring basis.

9.11.12. In order to ensure that the character and amenity of the area is maintained, a number of changes to the proposed conditions and Guidelines are recommended, including the following (refer to Ms Skidmore's report, **Appendix F**, at paragraphs 6.1 and 7.6 for a more detailed list of changes):

- a. Reference to cultural elements to be incorporated into the Building and Public Space Design Guidelines following consultation with mana whenua.
- b. Strengthen the design guidelines to create a more attractive access on the western side of both Halsey Wharf and Hobson Wharf.
- c. Include within the conditions opening of public access to the east of Bases C-G outside of the event modes.
- d. Requiring a reinstatement / legacy management plan to address the future state of Hobson Wharf and also Wynyard Point, in particular public access on the eastern waterfront.
- e. Include a provision within the Guidelines for well-designed bicycle parking within the areas of public space.

9.11.13. Overall, it is considered that the proposed development will add to the character and vibrancy of the Auckland waterfront. The development will result in built form that responds well to the water and public open spaces. Public access within the locality will be maintained for the enjoyment of recreational water users, pedestrians and cyclists. Existing marine based industries will be able to continue operating to contribute to the authenticity of the area as a 'working' wharf.

9.12. Servicing

9.12.1. Servicing of the proposed development and associated events is discussed within section 10.15 of the AEE and is also outlined in more detail within Document 28⁴⁷ of the application. Servicing of the development will consist of the following attributes:

- a. Power and telecommunication connections will be provided to each syndicate base via connections to existing services. During the event periods mobile generators will also be utilised to provide power to ensure that capacity on the existing electricity network is not compromised.
- b. Wastewater connections will be provided to all bases and a pump out facility is to be provided for the superyachts berthed on the Halsey Street Extension Wharf (west). Daily wastewater generation from the bases is expected to be in the vicinity of 85,000 litres per day.
- c. Water supply will be provided by connections to the existing network with Halsey Wharf being serviced by an existing watermain, a single watermain to service the Hobson Wharf

⁴⁷ Document 28, Stormwater and Services Technical Report, Beca, April 2018

extension and the bases on Wynyard Point to be supplied by a single watermain which is to be connected to the public watermain on Brigham Street. Each of the bases will contain sprinklers for fire and emergency eventualities. The operation of each base is expected to utilise approximately 90,000 litres of water each day.

- d. The total land-based impervious areas redeveloped to accommodate the bases will be approximately 19,800m². Run-off from all new roofs will discharge directly to the harbour via dropper or underground pipes. Stormwater runoff from the impervious areas which will provide for vehicle movement, and for the wharf extensions will be captured and discharged via a proprietary filtration device.
- e. The boat maintenance and repair associated with each base is considered an 'Industrial or Trade Activities' (**ITA**) and across the seven bases will include approximately 37,100m² of ITA area. To avoid the discharge of contaminants into the receiving environment, a series of structural and procedural controls for each of the bases is to be implemented. These controls will be outlined with an ITA/ Hazardous Substances and Environmental Management Plan and ITA Emergency Spill Response Plan specific to each base. The overall content outline has been determined but the details of these are to be provided in the relevant management plans to be formulated prior to the bases being occupied.

9.12.2. Mr Khan, Development Engineer for Council, has assessed the servicing provisions of the development and has not raised any concerns with the infrastructure to be provided (**Appendix L**). Mr Khan notes that the existing public stormwater network will not be compromised as the stormwater infrastructure proposed is of an appropriate design to cater for the development and will remain in private ownership with direct discharge to the harbour. Any wastewater to be generated will be collected and discharged to the public network and Mr Khan has consulted with Watercare Services Limited (**WSL**) who has provided approval in principle that the public network can accommodate the increased capacity. However detailed design will need to be approved by WSL as part of the building consent process. Mr Khan recommends additional conditions relating to water and wastewater and a set of geotechnical-related earthworks conditions in section 6 of his report, which I support (see conditions 135B and 135C in **Appendix U**).

9.12.3. The stormwater provisions of the development have also been assessed by the Council's technical specialists, Ms Chuah and Ms Johnston (**Appendix G**), who state that they consider the proposed stormwater quality regime to be feasible for the site and the effects of stormwater discharging to the receiving environment will be suitably mitigated, and due to the location of the site directly adjacent to the harbour no downstream adverse effects from any increases in flow or volume will occur.

9.12.4. Ms Chuah and Ms Johnston have also assessed the proposed development in terms of the ITA provisions in the AUP. To ensure that the discharge of any contaminants to the environment from the maintenance of the boats is addressed, the following procedures and controls are proposed in relation to the operation of each of the bases:

- a. No refuelling is allowed at any of the bases.
- b. Only water is to be used for washing the boats.
- c. Only authorised personnel are allowed within the base areas containing ITA activities.
- d. All chemicals are to be stored and used in undercover areas compliant with the Hazardous Substances and New Organisms Act.
- e. A base specific spill response plan to be implemented.
- f. Stormwater from any uncovered ITA areas to be captured and discharged into an approved proprietary filtration device.

Overall, it is concluded by Ms Chuah and Ms Johnston that the proposed structural and procedural controls for each of the bases and the water quality treatment for the overall site will be appropriate.

- 9.12.5. A submission has been received from Vector Limited (submission #5), as the owner and operator of a range of utilities infrastructure and assets within the site. Vector Limited is neutral in respect to the proposal and is seeking an amendment to proposed condition 36 which outlines those parties the applicant will consult with as part of the Construction Environmental Management Plan to make reference to Vector Limited and provide for Vector's assets and infrastructure within the project area, including maintaining unrestricted access to these assets. It is recommended that the applicant undertakes consultation with Vector Limited and any other utility providers, including Spark, Vodafone and Chorus to ensure full and unimpeded access for these utility providers to the assets during and after construction, unless alternative arrangements have been agreed between parties for temporary or permanent relocation of decommissioning of assets.
- 9.12.6. The St Mary's Bay Association also lodged a submission (submission #82) and within it raises stormwater concerns relating to water quality. Ms Chuah and Ms Johnston have noted that this is concern however they are satisfied that the measures proposed by the applicant, including proprietary filtration devices and temporary gross pollutant traps, will be sufficient to address this.
- 9.12.7. Ms Chuah and Ms Johnston have reviewed the proposed conditions by the applicant pertaining to the management of stormwater and ITAs⁴⁸ and consider them to be generally satisfactory. They have however re-ordered the conditions (refer to condition 136 onwards in **Appendix U**), and have recommended some improvements (e.g. to have a single condition with a table setting out clearly the design objectives for the stormwater management works: condition 148).
- 9.12.8. Overall, I consider that the proposed development can be appropriately serviced without placing undue demand on the capacity on the existing public reticulated network and will not result in the discharge of contaminants into the adjoining Waitemata Harbour.

9.13. Land Contamination

- 9.13.1. The development area is known to have contamination issues arising from previous land use activities, notably the handling and storage of petroleum hydrocarbons, and the disposal of gasworks wastes in the reclamation fill. The applicant provided a Preliminary Site Investigation (**PSI**), Document 27, which outlines the previous investigations which have occurred on the land and also background information on the historical uses of the land.
- 9.13.2. To mitigate any contaminant discharge during the land disturbance works the applicant has prepared a draft Remediation Action Plan (**RAP**) which outlines the following proposed measures:
- a. Undertaking a Detailed Site Investigation (**DSI**) to gain a better understanding of the types and levels of contaminants prior to commencing land disturbance activities and updating the RAP to reflect the findings of the DSI.
 - b. Disposal of all material which is unsuitable for remaining on site, following testing of contamination levels, to an authorised facility.
 - c. Ensuring that any truck leaving the site with contaminated material is covered prior to departure and dirt is brushed off the wheels to avoid any tracking of soil outside the site.
 - d. The placement of any stockpiled material onto impervious material only and in locations where runoff can be controlled. The stockpiles are also to be covered to minimise leachate.

⁴⁸ Document 7, conditions 136-168, pages 29-34

- e. Ensuring that any surface water runoff is directed towards catchpits where contaminants can be contained.
- f. In the event of encountering groundwater managing any contaminated groundwater should dewatering be required.
- g. Any petroleum impacted areas to be managed accordingly with the oil/water mix to be removed from the site.

9.13.3. The PSI and draft RAP has been reviewed by Council's contamination specialist, Ms Jukic, in her report (**Appendix K**) who concludes at paragraph 4.1.5:

The proposed mitigation measures are considered to be appropriate to control the potential contaminant discharges from the proposed land disturbance works. It is considered that any effects of the proposed activity on the environment will be appropriately managed and mitigated, based on implementing the proposed measures to avoid, remedy or mitigate effects in accordance with the application documents.

9.13.4. Mr Van de Munckhof, on behalf of Council has also reviewed the PSI and draft RAP with respect to the 'National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health' (**NES Soil**) (**Appendix J**). His view is that, provided the controls and mitigation measures outlined in the draft RAP along with any updates to reflect the outcome of the DSI are implemented, there will be negligible effect on human health arising from the disturbance, and future occupation of the land.

9.13.5. There are no submissions which have raised any contamination issues.

9.13.6. The applicant has proposed conditions in relation to the management of contaminant discharges⁴⁹. Ms Jukic considers the proposed conditions suitable however has recommended some minor changes to the wording, notably, the inclusion of reference to sampling and testing being undertaken by a suitably qualified and experienced practitioner. She has also proposed conditions to ensure that the effects associated with the storage of dredged material on land are appropriately mitigated, which I support (refer to conditions 88(g), 89B and 89C in **Appendix U**).

9.13.7. When having regard to the information provided with the application and taking into account the comments within Ms Jukic's and Mr Van de Munckhof's reports, I consider that the measures to be employed when undertaking land disturbance activities will be appropriate and ensure that contamination of the surrounding land and the adjoining Waitemata Harbour will not occur during the construction period and that there will be negligible effects on human health during construction and upon occupation of the land.

9.14. **Hazardous Substance Risk**

9.14.1. The provisions of the Wynyard Precinct within the AUP recognise the conflict between the existing hazardous uses established on Wynyard Point whilst providing for waterfront public open space and events activity. Until all existing hazardous industries within the area identified as Sub-Precinct F cease operation then any sensitive activities, such as large public events or entertainment facilities, require consent as a non-complying activity. During the event period Bases C-G are intending to hold corporate events which will cater for up to 300 people in addition to employees, per event, per base. To address the risks associated with this level of people being in close proximity to hazardous activities the applicant has provided a 'Quantitative Risk Assessment' (**QRA**) as prepared by Sherpa Consulting Limited.

⁴⁹ Document 7, conditions 85-91, pages 18-19

9.14.2. By way of background, Sherpa Consulting Limited undertook an earlier QRA in 2010 when formulating the precinct provisions to identify hazardous risks and to guide development overall within the Wynyard Precinct. The 2010 assessment took into account the presence of existing hazardous facilities at that time, including Stolthaven North, Stolthaven Hamer Street, BST Limited and Sanfords. The QRA in essence addresses the 'Individual Fatality Risk' which represents the probability of fatality to an individual located permanently at a particular location; the 'Injury Irritation Risk' which is the likelihood of exposure to injury; and also the 'Societal Risk', being the probability of incidents affecting an actual population.

9.14.3. The QRA report submitted with this application takes into account removal of the BST and Stolthaven Hamer Street sites and the overall risk in relation to the operation of Bases C-G, including daily operations and the holding of events for up to 300 people. Mr Van de Munckhof has reviewed the QRA on behalf of Council and provided a separate report in response (**Appendix I**). He and agrees with the findings within the report that the individual fatality risk at the bases meets the relevant risk criteria and the current societal risk level will remain acceptable subject to the following recommendations:

- a. Access to be discouraged to the Wynyard Point area north of the new breakwater and northern access road between Bases C-G and the remaining Stolthaven operations.
- b. Access to the new piled breakwater can only occur when there is no dangerous goods ship at the wharf itself.
- c. An Emergency Evacuation Plan to be prepared and implemented prior to the bases being occupied and all team members accommodated within the bases should be inducted and trained in the Emergency Evacuation Plan.
- d. Adequate access for emergency service vehicles is maintained.
- e. Pre-planning with terminal operator to avoid coincident discharge of ships to terminals with expected peak population timing for the events.

The report is also based on the numbers proposed within the application, being for a maximum of 110 people present at a base during normal daytime activities and events for up to 300 people maximum (excluding employees).

9.14.4. A report prepared by 4Sight Consulting has also been submitted with the application which takes into consideration the effect the proposed development of Bases C-G may have on the on the ability of the Stolthaven North site to comply with their requirements under the 'Health and Safety at Work (Hazardous Substances) Regulations' in terms of hazardous substance control zones and hazardous atmosphere zones to ensure appropriate separation distances between hazardous substances and public and protected places. The 4Sight assessment concludes that the proposal will not alter Stolthaven's existing compliance status under these regulations. Mr Van de Munckhof, has also reviewed the report prepared by 4Sight Consulting and agrees with the findings of the report, including the recommendation for a more detailed assessment to be undertaken for the bases that adjoin the 'ignition inclusion zones' to better understand the extent of any risk and whether additional controls are required.

9.14.5. In terms of public safety, in the event of an emergency, a 'Fire and Evacuation Assessment' has been prepared by Beca as part of the application. The assessment considers not only Bases C – G but also Bases A and B. Each of base buildings are to be designed to ensure compliance with the building code and it is recommended that all new base buildings include an automatic sprinkler system, in addition to a fire alarm system. Based on the layout of the syndicate bases, general circulation and egress routes have been identified which will provide for alternative means of escape in the event of a fire. The initial analysis confirms that there is appropriate turning area on the wharves for firefighting vehicles and that egress routes can be achieved, although there will need to be further analysis required in relation to the egress and capacity on Hobson Wharf and Halsey Wharf using pedestrian modelling.

- 9.14.6. A number of submissions in support have been received which seek to alter the proposed conditions, including condition 171 which states “The total number of people at any one time at Bases C and D shall not exceed 410 persons per base” (submission #75, #76, #77 and #78). The submissions are seeking that this condition be amended to enable up to 500 people at one time. It is recommended by Mr Van de Munckhof that this condition is not altered without any further assessment of risk being undertaken. The QRA analysis undertaken by Sherpa was based on a maximum of 410 persons for Bases C and D, and 370 persons for Bases E to G, and for events exceeding this threshold will need to be reconsidered in terms of societal risk.
- 9.14.7. The applicant has recommended conditions of consent to manage potential risk⁵⁰. Mr Van de Munckhof has recommended some changes to these, notably in relation to including reference to a toxic vapour release from the Stolthaven Wynyard (north) facility and minimising public access within Wynyard Point and Wynyard Wharf (including the breakwater) during events. He has also recommended an amendment to condition 171 to capture the assessed maximum of 370 persons in Bases E to G.
- 9.14.8. Based on the information provided by the applicant and taking into account the comments from Mr Van de Munckhof it is considered that the proposed development, including the operation of the syndicate bases, and the events themselves, can occur without increasing the risk to individuals or society.
- 9.15. Cultural Effects**
- 9.15.1. Prior to lodgement of the application, the applicant as required by section 62(3) of the Marine and Coastal Area (Takutai Moana) Act 2011 (**MACA**) notified any applicants for customary titles over the Waitemata Harbour of the proposed development and sought their views, to be received by Monday 23rd April. The Council is aware of one response received from Mr Paul and Mrs Collier, stating that resources were not available at this time to assess and provide a specific comment on the application.
- 9.15.2. Additionally, as part of the resource consent process, applicants often consult with mana whenua who have an interest within the subject area. The Council provides a facilitation service on behalf of applicants whereby a Council officer will contact mana whenua with the application details and invite them to provide comment within 15 working days to determine whether a cultural values assessment (**CVA**) is required. On the 3rd May 2018 Council contacted 15 iwi with an interest in the area. Responses were received from two iwi groups – Ngati Whanaunga and Ngati Whatua o Kaipara. Ngati Whatua o Kaipara deferred to Ngati Whatua Orakei for comments whilst Ngati Whanaunga responded with a request to the applicant to undertake a site visit and for the preparation of a CVA. To date, the Council has not received a CVA from Ngati Whanaunga.
- 9.15.3. I note that only two of the fifteen iwi groups who were contacted provided a response to the request. From previous experience of processing resource consents which require engagement with mana whenua, a lack of response often does not indicate a lack of interest, or that they have no comments to make on the application, but rather represents a resourcing issue for iwi to be able to provide a timely response within the 15 working day timeframe. Therefore, I have not concluded based on this consultation facilitation exercise undertaken by Council that iwi predominantly do not have any comment to make on the application (and the subsequent submissions from iwi groups indicates that there is interest in the proposal).
- 9.15.4. A number of submissions were received in relation to the application which raised issues pertaining to cultural effects:
- a. Jurisdiction issues
 - b. Lack of timely and effective engagement by the applicant

⁵⁰ Document 7, Conditions 170-176 and 182, pages 34-38

- c. Inclusion of cultural elements into the development to address impacts on the mauri of the Waitemata.

9.15.5. I have been verbally advised by the applicant that, with the agreement of the iwi submitters opposing the application, a 'Generic Cultural Values Assessment' (**GCVA**) is to be prepared which will consider this application and also other projects the applicant is undertaking within the area. At the time of writing this report I have not received written confirmation that this has occurred, or received a copy of the GCVA.

9.15.6. Those persons who hold mana whenua over an area are best placed to identify the impacts of any proposal on the physical and cultural environment as valued by them. As I am not mana whenua I cannot provide any assessment in that regard and have not received a CVA to assist in this matter. Therefore, given the concerns that have been raised, it is recommended that further engagement with mana whenua is continued via an amended version of proposed condition 22 (the mana whenua engagement condition)⁵¹.

9.15.7. It is also recommended that in order to incorporate cultural design elements into the development, further consultation is required with mana whenua to gain input into the Design Guidelines, particularly around designing of the public open space areas. It is recommended that this is introduced into the proposed Design Guidelines, as mentioned in section 9.10 of this report.

9.16. **Transport**

9.16.1. The applicant's traffic and transport report at Document 21⁵² of the application provides a detailed description of the existing land use activities and transport environment within the development area, including streets, pedestrian and cycle networks and public transport facilities. The assessment of transport effects covers three different phases of the development, including the construction phase, the operational phase limited to the use of the bases and superyacht activity, and the events themselves over a 6 month period.

9.16.2. In summary, the applicant is proposing the following changes to the existing transport infrastructure:

- a. The stopping of Brigham Street (noting that this is occurring through a separate process)
- b. A one way lane to the north of Base C referred to as the 'Northern Connector Road' which will provide access between Brigham Street and Hamer Street for south travelling vehicles
- c. Removal of the ASB car park on Wynyard Point and on-street parking spaces on Hamer Street and Brigham Street
- d. The construction of a new footpath on the eastern side of Hamer Street between the 'Northern Connector Road' and Silo Park
- e. A new north-south link to the west of the Bases C-G internal to the site and which is to operate as a shared space with pedestrians, cyclists and low speed vehicles
- f. Vehicle access to the five syndicate bases will be via three vehicle accesses from Hamer Street and one access from the Northern Connector Road.

⁵¹ Document 7, condition 22, page 4, and my recommended amendments in **Appendix U**

⁵² Document 21, America's Cup: Wynyard Hobson Traffic and Transport Technical Report, Beca, 12 April 2018, Section 3, pages 9-29

9.16.3. Access to Base A in the VEC building will not be changing so there are no proposed changes to the transport network on the Halsey Street Wharf Extension. Although Hobson Wharf will be extended with Base B constructed on it, access will remain as existing, with access being from the Eastern Viaduct, joining Quay Street at its intersection with Lower Hobson Street.

Construction Phase

9.16.4. The construction period is anticipated to extend over 20-24 months (including 6 to 7 months of enabling works) and during that time works will be occurring 24 hours per day, 6 to 7 days per week. Construction will typically generate up to 30 – 34 truck movements a day on Beaumont Street, which equates to 3 to 4 truck movements per hour, and 1 to 2 truck movements per hour on Halsey Street and Quay Street/Lower Hobson Street. During periods of concrete pours which are to occur at night, 60 truck movements per night on Beaumont Street are expected and 22 truck movements per night on Halsey Street and Quay Street/Lower Hobson Street. Three construction sites are to be established which will create the following staff movements:

- a. Wynyard Point construction site: 100 to 300 person movements per day
- b. Halsey Wharf construction site: 20 to 130 person movements per day
- c. Hobson Wharf construction site: 35 to 200 person movements per day.

9.16.5. Ms Coomer-Smit and Ms Crafer of Flow Transportation Specialists Ltd (**Flow**) have reviewed the application on behalf of Council (**Appendix M**) and with respect to the transport effects during the construction phase have concluded the following:

- a. The additional heavy vehicle construction traffic to be generated will have a less than minor effect on the operation and safety of traffic on the surrounding road network provided that the Construction Traffic Management Plan (**CTMP**) prohibits heavy vehicle movements from peak traffic times (7am – 9am and between 4pm – 6pm weekdays), significant concrete pours are to occur between midnight and 6am, appropriate safe facilities for pedestrians and cyclists shall be provided within the Wynyard Quarter and Eastern Viaduct during construction and heavy vehicle movements shall be physically separated from cyclists and pedestrians through the Eastern Viaduct, and the stopping and layover of heavy vehicles shall occur only in the truck layover areas identified on the north-eastern side of Brigham Street and on the Eastern Viaduct⁵³.
- b. The effects of staff generated travel will be less than minor subject to no staff parking being provided on the sites, and the development, implementation, monitoring and review of a Construction Staff Travel Plan (**CSTP**).
- c. The effects on the operation and safety of pedestrians and cyclists will be less than minor provided the CTMP includes measures to raise their awareness with heavy vehicle drivers, implements specific measures for construction vehicles moving through high pedestrian/cycle demand areas, provide safe pedestrian and cyclist access/egress for construction staff to all construction sites and restricting public pedestrian and cyclist access on Hobson Wharf during the construction period unless appropriate mitigation measures are put in place to enable continued access along with heavy vehicles.
- d. A 'Parking Management Plan' shall be prepared to manage on-street parking during construction with a focus on providing for short term visitor parking and for delivery vehicles.

⁵³ Document 21, Figure 7.4, page 72

Operational Phase

- 9.16.6. The operational phase refers to the use of the syndicate bases by staff, associated servicing and deliveries, and with some visitors and guests to the bases. The operational phase also takes into account use of the superyacht berths. During the operational phase it is expected that the combined staff numbers on the Wynyard Point bases will consist of 430 employees, 110 staff on Halsey Wharf and 110 staff on Hobson Wharf. Staff parking spaces will consist of 20 spaces to be shared amongst the five Wynyard Point bases, 18 staff parking spaces on Halsey Wharf and no staff parking on Hobson Wharf. It is expected that each syndicate base will generate up to 30 service/delivery movements a day and during any event at a base during the operational phases is anticipated to accommodate 10 to 30 guests. No parking is to be provided in association with the berthing of superyachts however each superyacht is expected to generate four vehicle trips a day associated with deliveries or servicing.
- 9.16.7. Flow, in their assessment of transportation effects conclude the following with regard to the operational phase:
- a. The predicted change in traffic during peak hours is less than an increase of 55 vehicles per hour, and taking into account existing traffic demands, this traffic generation will have negligible effects on the operation of traffic and buses on Fanshaw Street, Beaumont Street, Halsey Street, Lower Hobson Street and Quay Street.
 - b. The removal of unrestricted parking on Hamer Street will benefit the area as it will limit private vehicle travel in the area during peak times, however it is suggested that the applicant prepare a 'Parking Management Plan' for those people reliant on car parking facilities within this area.
 - c. With the occupation of the bases it is expected that pedestrian and cycle movement within the area will increase as staff cycle or walk to work. Mitigation measures are required that will ensure safe and efficient access for pedestrians and cyclists throughout the area.

Event Phase

- 9.16.8. The event phase will be for a six month period, with the first of these commencing in December 2020, with subsequent events to be held if ETNZ retain the cup. During the event phase additional traffic will be generated, in addition to that occurring in the operational phase, from spectators to the events and also with guests to each of the syndicate bases. Taking into account the expected movements from staff and guests, and assuming that the parking spaces associated with the ASB car park, fishing industry and the VEC buildings are all removed, it is expected that there will be an increase in daily vehicle movements of more than 1,300 on Wynyard Point, 500 on Halsey Wharf and 340 on Hobson Wharf. In terms of pedestrian capacity, during the events, up to 3000 people can be accommodated on Halsey Wharf and 1000 people on Hobson Wharf.
- 9.16.9. Flow, upon reviewing the application, note the following in relation to transport effects during the event phase:
- a. The transport effects on the operation of the immediate environment will be more than minor and will include a significant increase in pedestrians, people cycling, private vehicle and taxi movements to and from the Wynyard and Viaduct Precincts, and surrounding areas, particularly on race days.
 - b. The increase in traffic generation although temporary, is significant and to inform the public and local residents on alternative forms of transport it is considered vital that Event Transport Plans (as part of the overall Event Management Plan) are formulated.
 - c. A Pedestrian and Cycle Management Plan will need to be prepared which provides for safe travel for pedestrians and cyclists, and encourages these modes of transport. There

is some concern with the mixing of spectators, pedestrians, cyclists and vehicles in areas where there are shared facilities, notably along Beaumont Street and Daldy Street, Wynyard Crossing Bridge, North Wharf, Te Wero Island, Beaumont Street, the Eastern Viaduct and the access lane running along the western side of Bases C-G. It is suggested that cycle parking facilities are provided in the areas of public open space to reduce conflicts as cyclists can leave their bikes in a secure location and walk through the event space.

- d. During the event, and particularly on race days, there is the concern that additional traffic will delay public buses, and also that there will be an increased demand for public transport services. It is recommended that the applicant prepare an Event Transport Plan which includes a public transport strategy and plan for implementation in association with the Events Phase.

9.16.10. A number of submissions have been raised in relation to traffic and transport effects including the impacts on pedestrian and cycle access in a safe manner to and from public spaces; parking spaces for construction vehicles and the provision for parking and access for users and businesses operating in the Wynyard and Viaduct precincts; continued unrestricted site access to existing properties within the area; increased traffic and congestion; and a lack of details provided in the application around transportation and traffic to determine the level of effects. It is considered that the matters raised in submissions have been addressed above, although it is my opinion that concerns raised will predominantly be addressed through the various transport-related management plans required by the proposed conditions of consent. To ensure that the concerns of the submitters in this regard are appropriately addressed they should be included within the list of consultation parties in the formulation of these management plans.

9.16.11. In order to mitigate the effects during the construction, operational and event phases, Flow has recommended very detailed changes to the proposed conditions of consent in Document 7, with input from Auckland Transport. These revisions include requirements for Construction and Staff Travel Plans, including monitoring and reviewing of these; greater provision for pedestrian and cyclist facilities; monitoring and review of conditions during operational and event phases; and also submitters who have raised concerns with traffic matters and ask to be included as a consultee party, to be incorporated into the conditions given the lack of detailed information currently informing the assessment. Flow's detailed recommended changes are incorporated into my amended set of proposed condition at **Appendix U**.

9.16.12. The technical review undertaken by Flow has identified that the effects are potentially more than minor during the event phase. It is considered that to ensure transport related effects are appropriately managed the consent holder should be required to undertake further consultation with surrounding properties/stakeholders and to prepare robust management plans to mitigate effects during the construction and events phases of the development.

9.17. **Historic Heritage**

9.17.1. There is no identified heritage scheduled item within the area of works, however within the vicinity is scheduled item #02068, which refers to the Western Viaduct liftbridge, abutments and control shed. To the south of Bases C-G is scheduled item #1916 which refers to the Wind Tree sculpture on Jellicoe Street. The works are not expected to affect these items given their proximity to the area of works.

9.17.2. On Wynyard Point and Hobson Wharf, and the Te Wero walkway there are a number of historic structures and maritime sites identified on the Cultural Heritage Inventory (CHI)⁵⁴, which indicates that there is historic heritage material contained within and adjacent to the application area.

⁵⁴ AEE, section 10.6, page 138

- 9.17.3. Given that the works do not extend to any historic heritage item scheduled within the AUP, and having regard to the shallow depths of the proposed earthworks, no heritage impact assessment (**HIA**) has been provided by the applicant. In the event that the works uncover any heritage item as defined under the Protected Objects Act 1975 the applicant is proposing a 'Protected New Zealand Objects Protocol'⁵⁵ which establishes a procedure for any construction works that reveal protected New Zealand objects as defined under this Act. This protocol would sit alongside the accidental discovery rules within the AUP that apply for any other sensitive material, archaeological sites, Maori cultural artefacts/taonga tuturu and lava caves greater than 1m in diameter. The protocol is not designed to override any other requirements as sought by other legislation which protects heritage items.
- 9.17.4. The Council's heritage specialist, Ms Eaves, has reviewed the application and has raised some concerns with the lack of a HIA and also with the proposed protocol. Ms Eaves states that information within the application clearly identifies historic heritage items to be located within and adjacent to the proposed areas of activity and considers that some elements of the proposal will have negative effects on these historic heritage remains, and with the absence of a HIA it is difficult to assess the degree of effect.
- 9.17.5. Due to the lack of certainty regarding effects on heritage items Ms Eaves has recommended a robust set of conditions to address potential adverse effects (refer to condition 45 in **Appendix U**). In summary, the conditions require the consent holder to monitor earthworks across the development and for them to review any DSI and geotechnical reports in consultation with Council to ascertain if further archaeological monitoring is required. If further monitoring is required then the project archaeologist will oversee all earthworks and record any historic heritage findings. There is provision in the proposed conditions for material that is encountered to be offered to the National Maritime Museum. If any historic heritage item is encountered which is deemed of sufficient material stability and public interest to be retained, then the consent holder is to consider the retention of it in a location agreed by the consent holder and Team Leader Compliance Monitoring - Central within the application area (or otherwise stored until such time as an agreed location becomes available). At the completion of the earthworks monitoring a report shall be provided to the Council and the CHI database which provides a complete record of the historic heritage content of the site. The conditions proposed by Ms Eaves do not seem unreasonable. I appreciate that the applicant is working to tight construction timeframes and there is concern that works may be delayed due to archaeological practices. The conditions proposed by Ms Eaves, in light of no HIA being provided, will ensure that works can continue as scheduled whilst ensuring that any unknown historic heritage items existing will be recorded and retained or offered to the National Maritime Museum where possible.
- 9.17.6. Submissions have been received which comment on heritage matters, including consideration of heritage responsibilities and lack of a heritage impact assessment. It is considered that provided the applicant undertakes the works in accordance with the conditions proposed by Ms Eaves, or some other variation of these, which monitor the earthworks and record any historic heritage findings (and retain them where possible, or offer them to the museum), these concerns can be addressed. A submission was also received from the William C Daldy Preservation Society (submission #18) which indicates the development will result in a loss of their berthage without an alternative berth being offered. The matter regarding the berthing of the William C Daldy tug, although an important element of maritime heritage, is a matter between the Society and the applicant, and it is recommended that communication between the two is held to agree on suitable berthing arrangements for the tug.
- 9.17.7. Although there are no protected heritage items under the AUP which are expected to be affected by the proposed development, given the extent of heritage items within the locality, including within and adjacent to the area of works, provided monitoring and reporting is undertaken by a project archaeological, with material retained or offered to the National Maritime Museum where possible, it is considered effects on historic heritage matters will not be any greater than minor.

⁵⁵ Document 8, Protected New Zealand Objects Protocol

9.18. Natural Hazards

- 9.18.1. Given the location of the site within the coastal environment consideration needs to be given to sea level rise, flood hazards and also land stability.
- 9.18.2. The application identifies potential land instability issues in relation to Wynyard Point and also susceptibility to liquefaction during an ultimate limit state (ULS) earthquake. No detailed structural or geotechnical designs have been provided with the application. Provided that a geotechnical design report is prepared and submitted to Council for review and approval (as suggested by Mr Brightman in his report, **Appendix D**), and works are undertaken in accordance with the recommendations within the report, it is considered land stability for the subject area, or surrounding land, will not be adversely affected.
- 9.18.3. The finished levels of the wharfs do not meet the predicted sea levels due to climate change when taking into account wave action and building freeboard for the 100 year period. However, the applicant is proposing, through condition 27, to design the new piles so they can accommodate a 1m increase in the height of the wharf deck over the next 100 years in response to any changes to sea level. I note that Mr Khan supports this approach in his report (**Appendix L**, paragraph 4.16), as does Mr Morgan (**Appendix C**, paragraphs 3.8.1-2). Mr Morgan states that sea level rise will not be an issue during the course of the proposed AC36 event (or any subsequent events held during the 10 year period).
- 9.18.4. An overland flow path is located within the road reserve of Brigham Street which discharges directly to the harbour. Provided that the earthworks within Wynyard Point maintain this flowpath and its discharge into the harbour the earthworks will not result in displacement of water (refer to Mr Khan's report, at paragraph 4.19).
- 9.18.5. It is considered that provided the structures are designed to accommodate sea level rise and will be in accordance with any recommendations arising from a detailed geotechnical design report, the future structures will not be susceptible to natural hazards, and will not exacerbate any hazard for adjoining land.

9.19. Noise and Vibration

- 9.19.1. Noise effects associated with the proposal can be separated into two categories, those occurring during the construction phase (including airborne and underwater noise effects) and then also within the event phase. It is expected that outside of the events, noise from the base operational activities will comply with the relevant noise standards.

Construction Noise

- 9.19.2. A construction noise assessment has been prepared by Marshall Day Acoustics⁵⁶ (**MDA**) on behalf of the applicant which concludes that construction activities are predicted to generally comply with the relevant performance standards (including the AUP:OiP and construction standards NZS 6803:1999), however there will be some activities such as pile driving and concrete cutting which will exceed performance standards for brief periods. Underwater noise effects are to be managed by implementing 'low power' or shut down procedures for the piling works when a marine mammal or diver is located within an identified zone where there is the potential for hearing impediment (Temporary Threshold Shift Zones).
- 9.19.3. The construction noise reports have been peer reviewed by Mr Styles and Dr Pine, of Styles Group Acoustic and Vibration Consultants, on behalf of Council (**Appendix H**). The AUP standards in relation to construction noise levels for activities sensitive to noise distinguishes different standards for the Business – City Centre Zone and the Business – Metropolitan Centre

⁵⁶ Document 22, America's Cup Wynyard Hobson Construction Noise and Vibration Assessment, Marshall Day Acoustics, 12 April 2018

Zone, to all other zones⁵⁷. MDA have assessed the construction noise within the GCMZ against those provisions within the Business – City Centre which enable higher noise limits at night, and on Saturdays and Sundays. Mr Styles disagrees with this approach as there are a number of residential and hospitality receivers with open facades and outdoor areas and therefore attributing higher noise thresholds to them is not appropriate. In applying a more conservative approach, consistent with the AUP provisions, Mr Styles notes that the lowering of the standards will increase the amount of work subject to closer scrutiny to ensure the Best Practicable Option (BPO) is applied during the works, and will limit the likelihood of noisy works beginning very early in the morning and extending later into the night. It is recommended that the Construction Noise and Vibration Management Plan (CNVMP) is updated to clearly define the activities which will generate noise levels higher than the standards, and should set out the specific mitigation and monitoring procedures for those standards.

- 9.19.4. It is acknowledged that given the short timeframes associated with need for construction to occur, noise limits will at times be exceeded. The report provided by MDA does describe the noise level infringements and durations, however Mr Styles considers it does not contain a detailed description of the effects that would be experienced by the receivers close to the area of works. Mr Styles provides some assessment of the effects on nearby receivers, noting the type of effects that may be felt by surrounding activities such as the restaurants along North Wharf and Princes Wharf and the block of office buildings to the rear of the North Wharf restaurants. Mr Styles states at paragraph 2.4.6 that *“the effects can be summarised as ranging from being no greater than the current level of noise effects experienced in the area (which is by no means quiet), to periods of up to several weeks for many receivers where the effects will be significant for considerable periods of the day.”* It is essential that the construction activity is managed and monitored to ensure that BPO is employed. However, even with good management and monitoring, Mr Styles considers the construction noise effects on the Maritime Museum and its associated facilities to be significant (paragraph 2.4.7).
- 9.19.5. The report prepared by MDA also addresses underwater noise effects arising from the construction activities. The marine species of interest identified within the site area include common and bottlenose dolphins, Orca, leopard seals, fur seals and occasionally larger whales.
- 9.19.6. Dr Pine has peer reviewed this report on behalf of Council and undertook his own measurements in terms of ambient noise which varied from that undertaken by MDA, depicting a quieter marine environment. No explanation is provided for the difference in measurements however it is recommended that these are reviewed further given the unusually high ambient noise measurements which were recorded by MDA. Despite this anomaly Dr Pine generally agrees with the underwater noise effects and that the methods specified in the CNVMP for the management of underwater noise effects are appropriate.

Construction Vibration Effects

- 9.19.7. The report from MDA states that the vibration amenity effects on building occupants will be reasonable provided that they are of a constrained duration and best practice options are implemented. However the report does not include any vibration predictions for the various receivers, or the duration of impact. Due to this lack of information, Mr Styles has provided a level of assessment for surrounding receivers and states that (at paragraph 8.4.4) *“The construction vibration effects can be summarised as being at a level that will be perceivable and potentially annoying to most receivers throughout several weeks or months of the project for each receiver, with short periods where it may become disruptive at the closest receivers”*. The Maritime Museum is the closest receiver to the piling and associated vibration effects and Mr Styles considers the effects on the museum to be significant and careful attention will be required to manage the effects. Mr Styles recommends that project vibration standards should be included in the conditions, if consent is granted.

⁵⁷ Standards 25.6.27 and 25.6.28, Chapter E Noise and Vibration, AUP:OiP

Event Noise

- 9.19.8. Event noise is restricted to any event associated with the America's Cup over the ten year duration of the consent. The applicant is seeking consent to remove the low frequency noise limits for events and replace them with a set of broadband noise controls to control the overall noise levels. Mr Styles has reviewed the provisions proposed for events and concludes that the noise effects arising from the events would be substantially similar to any event that is permitted by the existing AUP provisions. The events would generate noise levels that are audible throughout the entire area at noise levels that may be above the standard day-to-day noise controls, and to an extent that may be disruptive to some activities however these are anticipated by the AUP in the provisions for temporary activities.

Summary – Noise and Vibration

- 9.19.9. A number of submissions have been received which relate to noise and vibration effects. It is considered that provided the works are undertaken in accordance with the recommendations as noted above, then the concerns raised by the submitters will be addressed.
- 9.19.10. A number of amendments to the proposed conditions have been made by Mr Styles and Dr Pine, which seek further assessment and management of construction activities with clearly defined best practice options and mitigation measures. It is recommended that to manage the noise and vibration effects of the construction activities and the events, those recommended changes to the conditions are implemented. **Appendix U** incorporates the changes proposed by Mr Styles and Dr Pine.
- 9.19.11. Based on the technical review undertaken by Mr Styles it is considered that based on the current level of information, the effects on receivers during the construction phase are likely to be more than minor. However, there is the potential that these effects can be managed to minimise their effects through further detail being provided within the conditions of consent.

9.20. Urban Design

- 9.20.1. I have already addressed some urban-design related considerations above.
- 9.20.2. I have read Ms Skidmore's general conclusions in section 7 of her report (**Appendix F**). She considers that, overall, hosting the America's Cup will bring considerable benefit to the continued evolution of the waterfront, and that the base configuration proposed will make a positive contribution to the vitality and character of the wider area and the creation of an integrated village atmosphere. Ms Skidmore notes that in event mode the proposal will, overall, make a positive contribution to the vitality, amenity and character of the area. Following the consent period, she says the proposal will provide a number of positive legacies (e.g. the upgrading of Wynyard Wharf), although she is of the view that the Hobson Wharf extension, while providing various legacy use options, is of limited benefit as part of the open space network / as an event space.
- 9.20.3. While Ms Skidmore identifies a number of adverse amenity effects in relation to connectivity and displacement of activities, which I have already discussed above, she has also proposed a number of conditions and amendments to the Building and Public Space Design Guidelines to address those matters. Again, I agree with Ms Skidmore's recommendations and have incorporated her suggested changes to the conditions in my **Appendix U**.

9.21. Positive Effects

- 9.21.1. The development if approved is expected to generate economic benefits associated with an increase in business activity, particularly for the marine industry during the day to day operations of the syndicate bases and also with the increased number of superyachts visiting the harbour. It is expected that hospitality services within the waterfront area will also benefit during the events with the increased number of patrons drawn to the area as spectators.

- 9.21.2. The additional coastal structures, including the breakwaters and extension to Hobson Wharf, will provide improved berthage areas to support port activities, will create greater access to the harbour and also increases the pedestrian and cycle network along the waterfront. The proposed public open spaces will also benefit recreational use of the area by providing further green areas within this part of the city centre.
- 9.21.3. The events themselves will generate a high level of tourism activity within Auckland, and potentially throughout New Zealand as spectators to the event will venture further out of Auckland outside of racing days.
- 9.21.4. Removal of the tank farms from the southern part of Wynyard Point and any land remediation undertaken will increase the amenity of this area by removing the tanks and also activities associated with hazardous substances.
- 9.21.5. A number of submissions have been received which identify the positive benefits that will emanate from the proposed development.

9.22. **Summary of Assessment of Actual and Potential Effects**

- 9.22.1. On balance, as the application currently stands, there is insufficient information to demonstrate that the adverse effects in relation to construction noise and vibration, and transport effects during the event phase, can be appropriately managed to the extent that they will remain at a minor level. Those effects are considered to be greater than minor (and potentially significant), as discussed in more detail above. It is expected also that the Hobson Wharf extension will generate adverse visual effects on specific residents of the apartments on Princes Wharf in legacy mode that are more than minor (but not during the event).
- 9.22.2. Measures to minimise or mitigate the adverse effects identified have been recommended by technical experts on behalf of Council.
- 9.22.3. I consider that there is the potential that the level of effects with regard to these categories of effect may lessen in scale through further mitigation provided via the management plan process.
- 9.22.4. I am otherwise satisfied that any adverse effects, for instance on the wider visual amenity values of the area, character, navigation, human health risks, and coastal processes, will be acceptable, and that the proposal will not detract from the quality of the Waitemata Harbour as the receiving environment.
- 9.22.5. The proposal will also generate positive effects by providing a facility for the AC36 event and generating increased business for marine service providers and also the tourist industry in Auckland and New Zealand.

10. **Section 104(1)(b)(i) Assessment**

10.1. **The Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011**

- 10.1.1. As previously mentioned in section 9.13 of this report, the site is subject to contaminated materials. The proposed development has been assessed by Mr Van de Munckhof (**Appendix J**) in accordance with the provisions in these regulations and it is considered that provided the proposed management and mitigation measures are implemented and adhered to during the works, the potential effects on human health will not be significant.

10.2. **The National Environmental Standards for Air Quality**

10.2.1. Air quality has been discussed in section 9.4 of this report. Discharges of contaminants into air from the activity are not expected to cause an exceedance of the Ambient Air Quality Standards defined in Schedule 1 of the NES:AQ. Significant discharges of fine particulate matter less than 10 µm in diameter (PM₁₀) or other scheduled hazardous air pollutants are not likely to arise from the proposed construction works.

11. Section 104(1)(b)(iv) Assessment

11.1. The New Zealand Coastal Policy Statement (NZCPS)

11.1.1. The purpose of the NZCPS is to state policies in order to achieve the purpose of the RMA in relation to the coastal environment of New Zealand. Broadly, the relevant objectives and policies of the NZCPS seek:

- a. to ensure that the ecological functioning of the coastal environment is maintained;
- b. the natural character and features of the coastal environment are protected;
- c. the role of tangata whenua as kaitiaki is provided for;
- d. maintain and enhance public open space and recreation opportunities of the coastal environment;
- e. coastal hazard risks are taken into account;
- f. and that people and communities can provide for their social, economic and cultural wellbeing.

11.1.2. The proposed development is considered to be generally consistent with the NZCPS for reasons as previously discussed. In summary:

- a. Due to the modified nature of the existing environment the proposed development will not adversely affect any natural character or features of the coastal environment (objective 2, policies 1 & 6);
- b. The coastal structures given their scale and location within a modified coastal environment, and the physical works required undertaken with appropriate mitigation measures, will maintain the ecological functioning of the surrounding marine environment (objective 1, policies 22 & 23);
- c. The wharf extension will be built in a manner which will enable it to rise in relation to any sea level rise within the next 100 years (objective 5, policy 24);
- d. The proposed new structures will increase access to the coast and whilst public access will be restricted to the east of Bases C-G and to the east of the Base A, these restrictions are temporary and will not restrict access to the coast in perpetuity (and there may be opportunities for interim access) (objective 4, policies 18 & 19);
- e. The coastal structures will not impede navigation for existing commercial and recreational users of the harbour (objective 6, policy 6); and
- f. The event will enable the sailing community to provide for their social and economic well-being by hosting the event, and which will also create opportunities for related businesses and those with an interest in sailing to provide for their social and economic well-being (objective 6, policy 6).

11.1.3. The applicant has provided a detailed assessment against the provisions of the NZCPS⁵⁸. I have read this assessment and generally concur with the comments made in relation each objective and policy.

11.1.4. Currently, having regard to submissions received by Council, there is some uncertainty as to whether the proposal adequately takes into account the role of tangata whenua as kaitiaki as sought by objective 3 and policy 2 of the NZCPS. I understand that discussions between the applicant and iwi are continuing, particularly in relation to the preparation of a 'Generic Cultural Values Assessment'. It is also hoped that in the event consent is granted, consultation with mana whenua will continue on an ongoing basis, to ensure that their relationship with the Waitemata is taken into account and incorporated into the development. I have proposed some improvements to the mana whenua engagement condition (condition 22), for instance to clarify that the purpose of the Mana Whenua Engagement Plan required by that condition should be to facilitate engagement between the Consent Holder and mana whenua in relation to the activities authorised by these consents, and to assist mana whenua to fulfil their role as kaitiaki.

11.2. **Hauraki Gulf Marine Park Act 2000 (HGMPA)**

11.2.1. The approving authority must have regard to sections 7 and 8 of the HGMPA when it is considering an application for resource consent for the Hauraki Gulf, its islands, and catchments. These sections are treated as a New Zealand coastal policy statement. Section 7 recognises its national significance, while section 8 outlines the objectives of the management of the Hauraki Gulf, its islands and catchments. The objectives seek to protect, maintain and where appropriate enhance the life supporting capacity of the environment of the Hauraki Gulf and its islands.

11.2.2. The outcomes sought by the HGMPA are consistent with those within the NZCPS. As noted above in section 11.1 the proposal is considered to be consistent with the HGMPA in that it will still enable access to the Hauraki Gulf and will not adversely affect the ecological functioning of this area, or any natural landscape or character values attributed to the area. However, as with the NZCPS, there is presently some uncertainty as to whether the proposal provides for the relationship of mana whenua with the Hauraki Gulf. Again, I understand that further engagement with mana whenua is presently taking place.

12. **Section 104(1)(b)(v) Regional Policy Statement Assessment (Auckland Unitary Plan: Operative in Part)**

12.1. Chapter B of the AUP sets out the RPS strategic framework for managing the use, development and protection of the natural and physical resources of the Auckland region in an integrated and co-ordinated manner and organises the framework into the following categories, and the objectives and policies relevant to each of these is discussed below (with the exceptions noted below):

- a. B2 Urban growth and form
- b. B3 Infrastructure, transport and energy
- c. B4 Natural heritage
- d. B5 Built heritage and character
- e. B6 Mana Whenua
- f. B7 Natural resources

⁵⁸ Document 6, New Zealand Coastal Policy Statement Assessment

- g. B8 Coastal Environment
- h. B9 Rural Environment (not relevant to this proposal)
- i. B10 Environmental Risk
- j. B11 Monitoring and environmental results anticipated (this section contains a set of indicators used to review effectiveness of policies, and is not discussed in this report).

12.2. Urban Growth and Form

12.2.1. The objectives and policies from the following sections are considered relevant to this proposal:

B2.2 Urban growth and form

B2.3 A quality built environment

B2.5 Commercial and industrial growth

B2.7 Open space and recreation facilities

B2.8 Social Facilities.

12.2.2. In essence, the objectives and policies in relation to urban growth and form seek to ensure that any new urban development is located within an area zoned appropriately and which has the supporting infrastructure to support anticipated growth. Any new development should result in built form that is of a high quality outcome and results in a layout which provides connectivity and facilities for people to meet their recreational and social needs. Commercial growth should occur in identified areas in an efficient manner, and recognises the locational requirements of some industries while managing conflicts between incompatible activities.⁵⁹

12.2.3. The proposed development is considered to be consistent with the relevant objectives and policies related to urban growth and form. The proposed buildings and the associated activity has a functional need to be located adjacent to the harbour and the form and design of the buildings will reflect the existing built form in the locality. The operational phase of the syndicate bases is not expected to result in any conflict with existing established uses and will not generate effects that will affect existing commercial or residential uses in the locality. The events themselves however are expected to generate some conflict with surrounding residential areas and businesses, particularly with regard to noise and transport effects. These effects will be temporary in nature and somewhat expected given the planning provisions for events to occur within this locality. Additional areas of public open space will be created as will increased pedestrian and cycle connections, adding to the open space and recreational facilities of the area.

12.3. Infrastructure, Transport and Energy

12.3.1. The objectives and policies from the following sections are considered relevant:

B3.3 Transport.

12.3.2. Effective, efficient and safe transport that facilitates choice and recognises the differing needs of all sectors of the community should be provided. Of particular relevance to the proposed development is the need to enable the movement of people, goods and services and ensure accessibility to sites, and to also provide effective pedestrian and cycle connections.⁶⁰

⁵⁹Objective B2.2.1(1)(a)(e); Objective B2.3.1(1)(a)(f); Policy B2.3.2(1)(a)(d)(e),(2)(a)(b)(c);Policy B2.5.2(2)(a)(b)(e)(f)(g)

⁶⁰ Objective B3.3.1(1)A(a)(d)(e); Policy B3.3.2(2),(4)(b),5(b)

12.3.3. As previously noted, the construction activities and the events themselves will have an effect on the movement of transport within the immediate area, particularly in the Wynyard Precinct. Provided that the detailed management plans include appropriate mitigation measures which maintain access to existing uses, do not increase traffic within peak times, and address the increased event traffic, including vehicles, pedestrians, cyclists and public transport options, the transport network around the Wynyard and Viaduct Precincts will be able to continue to operate. The development will provide increased pedestrian and cycle ways which will link to existing connections and strengthen these along the water front.

12.4. **Natural Heritage**

12.4.1. The objectives and policies from the following sections are considered relevant:

B4.3.1 and B4.3.2 Viewshafts.

12.4.2. Significant public views to the coastal environment, ridgelines and other landscapes are to be protected from inappropriate development. There are no outstanding natural features of landscapes within the subject area. The E10 Mt Eden Volcanic cone passes over the site however the height of the buildings will not affect this view shaft.

12.4.3. **Built Heritage and Character**

12.4.4. The objectives and policies from this chapter refer to the protection of the region's distinctive historic heritage and special character areas. The development does not affect any built heritage items or special character areas as identified within the AUP and therefore the objectives and policies within this section are not considered relevant.

12.5. **Mana Whenua**

12.5.1. The objectives and policies from the following sections are considered relevant:

B6.2 Recognition of Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation

B6.3 Recognising Mana Whenua values

B6.4 Maori economic, social and cultural development

B6.5 Protection of Mana Whenua cultural heritage.

12.5.2. Development within the Auckland region must take into account Mana Whenua values. Opportunities for Mana Whenua to play a role in environmental decision-making, governance and partnerships shall be increased to provide opportunities for their relationship with natural resources to be recognised through consultation, protection of cultural and historic heritage sites, incorporating cultural elements into developments and providing facilities that cater to Maori economic, social and cultural development.⁶¹

12.5.3. The applicant, prior to lodgement, undertook consultation with mana whenua as per MACA requirements and then also once the application was lodged, Council's iwi facilitation service was utilised and 15 iwi groups were invited to provide comment on the application.

⁶¹ Objective B6.2.1(1)(2), Policy B6.2.2(1)(a-h), Objective B6.3.1(1)(2), Policy B6.3.2(1)(a), Policy B6.3.2(3), Policy B6.3.2(6)

12.5.4. Whilst this consultation has occurred, the submissions from some iwi groups raise concerns about a lack of engagement, which appears to be a result of a lack of time for iwi to effectively engage with the applicant. As a result, there is uncertainty as to whether the proposed development in its current form adequately incorporates mana whenua values. However, the proposed conditions require further engagement to occur between the applicant and mana whenua and also proposes inclusion within the design guidelines of cultural elements. Provided that these conditions are imposed and adhered to, it is considered that the proposed development can be consistent with these objectives and policies. I record again my understanding that further discussions are presently occurring between iwi and the applicant.

12.6. **Natural Resources**

12.6.1. The objectives and policies from the following sections are considered relevant:

B7.2 Indigenous Biodiversity

B7.4 Coastal water, freshwater and geothermal water

B7.5 Air.

12.6.2. Historical development and land and coastal and freshwater management practices have placed increasing pressure on land and water resources, reduced air quality and increased demand for mineral resources. Freshwater management practices and demand for mineral resources is not considered relevant to this application so is not discussed further. Any new development is to ensure that biodiversity values are protected, coastal water quality is maintained and that air contaminant discharges are managed to maintain air quality at appropriate levels.⁶²

12.6.3. The site does not contain any highly valued indigenous taxa or vegetation and there are no significant ecological values attributed to the marine or terrestrial area. The Council's coastal ecologist, Dr Sivaguru, has not raised any concerns regarding ecological effects arising from the proposed development and therefore it is considered the existing biodiversity values attributed to the area will be maintained. The development, including the earthworks, stormwater and wastewater discharge will be undertaken in accordance with best practice methods and will not adversely affect water quality within the Waitemata Harbour. The Council's air contaminant specialist has reviewed the proposal and concludes that the proposed development will not result in objectionable odours. The proposed development is considered to be consistent with the relevant objectives and policies pertaining to natural resources.

12.7. **Coastal Environment**

12.7.1. The objectives and policies from the following sections are considered relevant:

B8.2 Natural Character

B8.3 Subdivision, use and development

B8.4 Public access and open space

B8.5 Managing the Hauraki Gulf/Te Moana Nui o Toi/Tikapa Moana.

12.7.2. Development within the coastal environment needs to protect the natural character values, but providing for development that has a functional need to be within a coastal location. Development should also maintain and enhance public access to the coast and recognise the importance of the Hauraki Gulf and supports the social and economic well-being of the communities within the Gulf.

⁶² Objective B7.2.1(1), Objective B7.4.1(1)(2)(4)(5), Policy B7.4.2(7)(8)(9)

12.7.3. These matters have been previously discussed, but in summary, it is considered that the site and surrounding area is a highly modified coastal environment and does not contain high natural character values. The development is marine-based and therefore there is a functional need for it to be located adjacent to the harbour and the structures and buildings will be of a form and scale that will complement existing development within the locality. Increased public access to the water will be provided through the extension to Hobson Wharf and the proposed breakwaters. Although access to the water edge will be restricted to the east of Bases C-G and Base A, these will be temporary restrictions and in the long term public access in these locations will be provided. There may be some opportunities to allow such access during the 10 year period, in the event that bases are vacant for a period of time (and Ms Skidmore has recommended some conditions to provide for this possibility). The proposal will not adversely affect the ecological functioning of the Haruaki Gulf, or the economic, social, ecological or landscape values attributed to the islands within the Gulf. Overall, it is considered that the proposed development will be consistent with these objectives and policies.

12.8. Environmental Risk

12.8.1. The objectives and policies from the following sections are considered relevant:

B10.2 Natural Hazards and climate change

B10.3 Land – hazardous substances

B10.4 Land – contaminated.

12.8.2. The objectives and policies within these sections seek to ensure that development responds to natural hazards and climate change, hazardous substances are managed in a way which protects the health and safety of people working in living near to them and also the natural environment, and contaminated sites are identified, assessed, managed and remediated to minimise risks to public health and the environment.⁶³

12.8.3. As previously discussed, the wharf extensions and the buildings will be designed to take into account stability constraints and sea level change. The hazardous materials within the syndicate bases will be stored in a manner that will minimise any risk to the health and safety of people working or living near them, and also during the event phase, measures will be installed to prevent the public from access to the northern part of Wynyard Wharf where the storage of hazardous substances will still occur and the DG tank will berth. Due to previous land use activities the ground is known to be contaminated and the earthworks will be undertaken in accordance with a RAP to minimise risk to public health and the environment. For these reasons it is considered the proposed development will be consistent with these objectives and policies.

13. Section 104(1)(b)(vi) Relevant Provisions of the Relevant Regional/District Plans Objectives and Policies

13.1. The relevant regional and district provisions of the AUP applicable to this proposal are discussed in the ensuing section.

13.2. E1 Water quality and integrated management

13.2.1. The objectives and policies within this chapter aim to ensure an integrated management approach to land use activities occurs to avoid or minimise adverse effects on water quality within freshwater systems and the coastal environment.⁶⁴

⁶³ Objective B10.2.1(2)(3)(4)(6), Policies B10.2.2(3),(13)(c); Objective B10.3.1(1)(2), Policies B10.3.2(1)(3)(a)

⁶⁴ Objective E1.2(3), Policy E1.3(9)(11)

13.2.2. Given that the area of development is directly adjacent to the coast it is considered the objectives and policies as they relate to freshwater systems is not relevant to the assessment of this application. In relation to the effects on the quality of the water within the Waitemata Harbour it is considered the proposed development is consistent with the objectives and policies. As previously noted, the construction works within the harbour will not result in unacceptable effects on water quality as a result of contamination and sedimentation. The earthworks undertaken on the landward side of the site will be carried out in accordance with appropriate erosion and sediment control techniques to minimise sediment discharge into the harbour. Given the contaminated nature of the land measures will also be undertaken during works to ensure contaminants are contained and do not leach into the harbour. The stormwater management approach proposed by the applicant will be feasible for the site and will suitably mitigate the effects of stormwater discharging to the environment and stormwater from any uncovered ITA areas will be captured and discharged into an approved proprietary filtration device. As noted, Ms Jukic has also recommended a set of conditions to ensure that any effects from the storage of dredge material on land are appropriately mitigated. For these reasons it is considered the proposed development will be consistent with these objectives and policies.

13.3. **E4 Other discharges of contaminants**

13.3.1. The objectives and policies within chapter E4 directly refer back to the objectives and policies as noted in Chapter E1 'Water quality and integrated management'. As discussed above, the proposal is considered consistent with the relevant objectives and policies within Chapter E1.

13.4. **E7 Taking, using, damming and diversion of water and drilling**

13.4.1. The objectives and policies within chapter E7 refer back to chapters E1, E2, D3 and D8. Of particular relevance to this proposal are the objectives and policies E2 'Water quantity, allocation and use', notably Objective 4 and Policy 23.

13.4.2. As previously discussed in section 9.3 of this report, it is considered the proposed groundwater diversion will have minimal effects on land stability and buried services, and is therefore consistent with the objectives and policies within chapter E2 as they relate to this application.

13.5. **E11 Land disturbance – Regional and E12 Land disturbance - District**

13.5.1. Both these chapters relate to land disturbance activities and seek to manage the adverse effects of land disturbance to ensure the safety of people and surrounding land, buildings and structures, and to also minimise sediment generation.⁶⁵

13.5.2. The earthworks will be undertaken in a manner which will utilise appropriate erosion and sediment control techniques that will minimise sediment generation. No specific geotechnical report has been prepared as part of the application⁶⁶, however Mr Brightman and Mr Khan recommend various geotechnical conditions (refer to proposed condition 135B in **Appendix U**), including a condition requiring a Project Geotechnical Report to be produced. The works will be undertaken in accordance with the recommendations as detailed within this report, and will maintain the stability of the subject site and adjoining land. Overall, it is considered that for these reasons, the proposal will be consistent with the objectives and policies within chapters E11 and E12.

⁶⁵ Objective E11.2(1)(2), Policies E11.3(2)(a)(b)E11.3(4),(5)(6)(7);Objective E12.2(1), Policies E12.3(1)(2)(3)(4)(5)(6)

⁶⁶ Although there is a desktop geotechnical report that has been prepared, Document 25, Geotechnical Report for Resource Consent Application, Wynyard Hobson, Beca, April 2018

13.6. **E14 Air Quality**

13.6.1. The objectives and policies in Chapter E14 refer to maintaining high air quality or improving it in those parts of the region that are subject to low – medium air quality. Furthermore, human health, property and the environment are protected from the effects of the discharge of contaminants to air, and incompatible uses and development are separated from each other.⁶⁷

13.6.2. As noted in section 9.4 of this report it is unlikely that any air quality issues will occur beyond the boundaries of the subject site and therefore the proposal will not result in adverse effects on human health, property or the environment and in my opinion the application will be consistent with these objectives and policies.

13.7. **E15 Vegetation management and biodiversity**

13.7.1. The objectives and policies in this chapter apply to the management of terrestrial and coastal vegetation and biodiversity values outside of scheduled significant ecological areas and aim to protect and enhance ecosystems, continuous indigenous vegetation and vegetation within sensitive environments.⁶⁸

13.7.2. The trees proposed for removal are not located within a sensitive environment and do not contribute to any ecological corridor. It is therefore considered that the proposed tree removal will be consistent with these objectives and policies.

13.8. **E17 Trees in roads**

13.8.1. The objectives and policies within Chapter E17 seek to balance the safe and efficient management of the roading network whilst also providing tree cover to contribute to cultural, amenity, landscape and ecological values of an area.⁶⁹

13.8.2. Whilst the applicant is proposing the removal of street trees, relocation of these trees, or replanting will occur for every tree removed. Although the trees are located in a coastal area it is an area which is very much industrial in nature and not attributed with high amenity values. Notwithstanding that, the trees do provide visual amenity values and provided that replacement/relocation planting does occur, these values will be maintained, and the proposal will be consistent with these objectives and policies.

13.9. **E23 Signs**

13.9.1. Signs, including billboards and comprehensive development signage are to contribute to the social and economic wellbeing of communities by providing identification, direction and advertisements of goods and services. Signs should be managed so that they do not significantly detract from the profile or appearance of the building, do not create clutter, maintains any heritage or visual amenity values and does not cause any transport safety issues.⁷⁰

13.9.2. There are no specific details in relation to the signage proposed however I note that the proposed 'Building and Public Space Design Guidelines'⁷¹ includes team and event branding and legibility and states:

Provide a consistent and coherent approach to team branding to assist legibility of the team bases and expression of the America's Cup as a major international event. Branding should be integrated with base architecture and surrounding open space design. Team and event branding might potentially utilise super-graphics, projection,

⁶⁷ Objective E14.2(2), Policy E14.3(8)(a)

⁶⁸ Objective E15.2(2), Policies E15.3(1)(6)(10)

⁶⁹ Objective E17.2(1)(2), Policy E17.3(3)(4)

⁷⁰ Objectives E23.2(1)(2), Policies E23.3(2)(4)(5)

⁷¹ Document 13 of the application

*lighting effect, flags and/or banners, provided advertising is related to the AC36 event, teams and team sponsors.*⁷²

13.9.3. Ms Skidmore in her report (**Appendix F**) recommends that the Guidelines be expanded to explain the approach that will be taken to signage for each base more generally, with accompanying amendments to condition 23(a) and (b). I also note that Mr Wright in his report (**Appendix O**) has recommended some specific conditions relating to illuminated signage in connection with the development (condition 202). Their recommendations are reflected in **Appendix U**.

13.9.4. It is expected that the syndicate buildings will contain some form of corporate branding and also that signage will be erected during the events themselves for advertising purposes. Provided that details of the signage are consistent with the Guidelines (revised as suggested by Ms Skidmore), and provided that Ms Skidmore's and Mr Wright's recommended conditions are imposed, then:

- a. It is expected that the associated signage will ensure that visual clutter does not occur and they are not in a location, or a scale and form that will detract from the visual amenity values and character of the area or result in transport safety concerns; and
- b. the proposed development will not be contrary to the objectives and policies in Chapter E23.

13.10. **E24 Lighting**

13.10.1. The objectives in Chapter E24⁷³ refer to artificial lighting enabling outdoor activities and the security and safety of people and property, and the adverse effects of outdoor lighting on the environment and safety of road users being limited. The policies⁷⁴ address (among other matters), the provision for appropriate levels of artificial lighting to enable the safe and efficient undertaking of outdoor activities, including night time working, recreation and entertainment, and also control of the intensity, location and direction of artificial lighting to avoid significant glare and light spill onto adjacent sites, maintain safety for road users and minimise the loss of night sky viewing.

13.10.2. As previously discussed the construction period and events will require the implementation of temporary lighting. The application details have been reviewed by Council's expert, Mr Wright, and subject to adherence to the proposed conditions of consent in **Appendix U**, the lighting is expected to comply with the AUP standards. Therefore it is considered the proposed lighting will not result in significant glare or light spill on adjoining properties and is consistent with the provisions of Chapter E24.

13.11. **E25 Noise and Vibration**

13.11.1. The objectives and policies for this chapter refer to the effects that noise and vibration may cause on amenity values and seek to minimise these and also effects on human health, and to protect existing noise activities from reverse sensitivity effects. Of particular relevance to this application as it relates to construction activities is objective E25.2(4) which states:

Construction activities that cannot meet noise and vibration standards are enabled while controlling duration, frequency and timing to manage adverse effects.

And also policy E25.3(10) which states:

⁷² Section 5, page 4, Document 13

⁷³ E24.2(1) and (2).

⁷⁴ E24.3(1) and (2).

Avoid, remedy or mitigate the adverse effects of noise and vibration from construction, maintenance and demolition activities while having regard to:

- (a) The sensitivity of the receiving environment; and*
- (b) The proposed duration and hours of operation of the activity; and*
- (c) The practicability of complying with permitted noise and vibration standards.*

13.11.2. The AUP provides for construction activities to occur which cannot meet noise and vibration standards, however these must be undertaken in a manner which minimises effects on nearby sensitive receivers. As discussed in section 9.19 of this report the information provided to Council does not demonstrate that the noise and vibration effects during construction will not create significant effects on the surrounding sensitive receivers including the Maritime Museum and also other nearby office and hospitality uses. Therefore, based on the current level of information, there is potentially some inconsistency with the objective and policy quoted above (although the proposal is not contrary to them in my opinion). However, there is the ability, subject to further analysis and more stringent mitigation measures being implemented (through conditions of consent proposed by Mr Styles), that the development may be able to appropriately mitigate adverse effects of noise and vibration during construction.

13.11.3. Additional objectives and policies in this chapter refer to protecting people from unreasonable levels of noise and vibration, particularly at night.⁷⁵ Mr Styles notes in his report (section 5.8, **Appendix H**) that the noise effects arising from events would be substantially similar to any event that is permitted by the existing AUP provisions, but that events would generate noise levels that are audible throughout the entire area at noise levels that may be well above the standard day-to-day noise controls in the AUP. However, he emphasises that events that generate noise levels as high as those proposed are anticipated by the AUP, and in his opinion are “consistent with the relevant objectives and policies” (paragraph 5.8.2). Relying on Mr Styles’ report, I am satisfied that given the frequency and duration of these events and their similarity to temporary events anticipated by the precinct provisions, the events themselves will be consistent with and not contrary to the objectives and policies relating to noise.

13.12. **E27 Transport**

13.12.1. The provisions of this chapter seek to support and manage the effects on the operation and development of an integrated transport network, including managing adverse effects of traffic generation on the transport network, providing appropriate levels of parking and access and ensuring that there are public transport, and pedestrian and cycle facilities.

13.12.2. The following specific objectives and policies are considered relevant to this proposal:

- a. Land use and all modes of transport are integrated in a manner that enables:
 - i. The benefits of an integrated transport network to be realised; and
 - ii. The adverse effects of traffic generation on the transport network to be managed.⁷⁶
- b. An integrated transport network including public transport, walking, cycling, private vehicles and freight is provided for.⁷⁷
- c. The provision of safe and efficient parking, loading and access is commensurate with the character, scale and intensity of the zone.⁷⁸

⁷⁵ Objective E25.2(2), Policy E25.3(1)(2)

⁷⁶ Objective E27.2(1), AUP

⁷⁷ Objective E27.2(2), AUP

⁷⁸ Objective E27.2(4), AUP

- d. Pedestrian safety and amenity along public footpaths is prioritised.⁷⁹
- e. Limit the supply of on-site parking in the Business – City Centre Zone to support the planned growth and intensification and recognise the existing and future accessibility of this location to public transport, and support walking and cycling.⁸⁰
- f. Support increased cycling and walking by:
 - i. Requiring larger developments to provide bicycle parking;
 - ii. Requiring end-of-trip facilities, such as showers and changing facilities, to be included in office, educational and hospital developments with high employee or student numbers; and
 - iii. Providing for off-road pedestrian and bicycle facilities to complement facilities located within the road network.⁸¹
- g. Require parking and loading areas to be designed and located to:
 - i. Avoid or mitigate adverse effects on the amenity of the streetscape and adjacent sites;
 - ii. Provide safe access and egress for vehicles, pedestrians and cyclists;
 - iii. Avoid or mitigate potential conflicts between vehicles, pedestrians and cyclists; and
 - iv. In loading areas, provide for the separation of service and other vehicles where practicable having regard to the functional and operational requirements of activities.⁸²
- h. Require vehicle crossings and associated access to be designed and located to provide for safe, effective and efficient movement to and from sites and minimise potential conflicts between vehicles, pedestrians, and cyclists on the adjacent road network.⁸³

13.12.3. As previously discussed the adverse effects on the transport network during the event phase, based on the current information in the application, are considered to be more than minor, and potentially significant, particularly on race days when the bases are hosting guests (see paragraph 8.3.1 of the Flow report, **Appendix M**). As a result, I consider there is the potential for inconsistency with objective 27.2(1), which emphasises the need for management of the adverse effects of traffic generation on the transport network. However the effects are temporary in nature and with any large event a degree of disruption is anticipated. Provided that the Event Transport Plan minimises effects appropriately then I do not consider the proposal to be inconsistent with objective 27.2(1).

13.12.4. Also, given some of the areas of risk of conflict identified in the Flow report (e.g. at paragraph 8.3.7), I consider the proposal has the potential to be inconsistent with Policy 27.3 (17)(c), which refers to avoiding or mitigate potential conflicts between vehicles, pedestrians and cyclists. The Flow report (**Appendix M**, page 48) recommends the implementation of a pedestrian and cycle management plan for the events phase. In my opinion, provided that this plan is successfully carried out then the proposal will not be inconsistent with this policy.

⁷⁹ Objective E27.2(5), AUP

⁸⁰ Policy E27.3(4), AUP

⁸¹ Policy E27.3 (14), AUP

⁸² Policy E27.3 (17), AUP

⁸³ Policy E27.3 (20), AUP

13.12.5. it is considered all other aspects of the proposal will be consistent with the objectives and policies as noted above as parking, loading and access for each syndicate base is being provided that will not adversely affect the safety and efficiency of the surrounding road network; a staff travel demand plan will actively encourage alternative means of transport to reliance on the private car; and the overall proposal supports increased walking and cycling through the provision of cycle facilities at the bases, bike parking facilities in public open space areas, and extends public access routes throughout the area.

13.13. **E30 Contaminated Land**

13.13.1. The objectives and policies in this chapter seek to ensure that the discharge of contaminants from contaminated land into air, into water, or onto land are managed in such a way as to protect the environment and human health, and to enable land to be used for suitable activities now and in the future.⁸⁴

13.13.2. As previously noted, the land is subject to land contamination due to historic activities. Prior to the works commencing a DSI will be carried out to ascertain the extent of contamination and a RAP will be formulated to manage the effects and ensure that the works can be carried out in accordance with controls and mitigation measures that will protect human health and prevent contamination of the surrounding land and maintain the water quality of the Waitemata Harbour. In my opinion the application will be consistent with these objectives and policies.

13.14. **E31 Hazardous substances**

13.14.1. The objectives and policies of this chapter acknowledge the need for hazardous substances but aim to minimise the risks of such facilities to people, property and the environment.⁸⁵

13.14.2. The application acknowledges the existence of hazardous uses on Wynyard Point and the potential risk issues around holding events in Bases C-G and also having an increased number of members of the public within the locality during events. As noted in section 9.14 of this report, it is considered that provided the events and public access is managed, and the conditions are amended in accordance with Mr Van de Munckhof's recommendations, then the risk to individuals and society will remain low. I therefore consider that the application will be consistent with these objectives and policies.

13.15. **E33 Industrial and trade activities**

13.15.1. Chapter 33 aims to manage industrial and trade activities to avoid or minimise adverse effects on land and water from environmentally hazardous substances and discharge of contaminants.⁸⁶

13.15.2. As noted in section 9.12 of this report the development has been considered against the ITA provisions and the proposed structural and procedural controls for each of the bases will ensure that the base activities will minimise any environmental hazardous substance from discharging to land and water and will be consistent with the objectives and policies in this chapter.

⁸⁴ Objective E30.2, Policy E30.3(2)

⁸⁵ Objective E31.2, Policies E31.3(1)(2)

⁸⁶ Objective E33.2, Policies E33.3(1)(2)

13.16. **E36 Natural Hazards and Flooding**

- 13.16.1. Development within urban areas needs to take into account natural hazards and ensure that the risk to people, buildings, infrastructure and the environment are not increased overall and take into account the long term effects of climate change. Development should also safely maintain the conveyance function of floodplains and overland flow paths.⁸⁷
- 13.16.2. The buildings are temporary and given their life span of ten years it is not expected that they will be subject to any effects of climate change. The wharf extension will have a longer life expectancy and will be constructed in a manner that will allow it to rise alongside any sea level changes that may occur. All works will be undertaken in accordance with recommended geotechnical design guidelines to maintain land stability. The existing discharge from an overland flow path on Brigham Street directly into the harbour will be maintained and will not result in the displacement of water. For these reasons, it is considered the proposed development will not result in increased risk to natural hazards and will overall be consistent with these objectives and policies.

13.17. **E40 Temporary Activities**

- 13.17.1. Chapter E40 recognises the importance of temporary activities to the vibrancy of a place and enhancements to the social, environmental, economic and cultural well-being of communities. However any temporary event though must be located and managed to mitigate adverse effects on amenity values, communities and the natural environment.⁸⁸
- 13.17.2. The event period is expected to enhance the vibrancy of the Harbour by attracting spectators who will not only view the racing but also engage with the syndicate bases and other associated entertainment and hospitality facilities. Although the event period will run for a period of six months, during this time activity within the area will vary with peak activity periods expected to coincide with race days. The AUP provides for events longer than 21 days as a restricted discretionary activity and therefore it is envisaged that events exceeding the 21 day period are an anticipated outcome. The applicant is proposing a range of event management plans to minimise effects and provided that the events occur in accordance with these then it is expected the adverse effects on amenity values, communities and the natural environment will be mitigated.

13.18. **F2 Coastal – General Coastal Marine Zone**

- 13.18.1. The purpose of this zone is to provide for use and development in the coastal marine area, particularly for those that have a functional need to be in the CMA. However, any development needs to protect any cultural, heritage, ecological, landscape and character values of the area while also maintaining and enhancing public access, open space, recreational use and amenity values to, and along the CMA.⁸⁹
- 13.18.2. For reasons as discussed previously in relation to the NZCPS and also the regional policy statement provisions, it is considered the proposed development will be consistent with the objectives and policies within this chapter:
- a. Due to the modified nature of the existing environment the proposed development will not adversely affect any natural character or features of the coastal environment;
 - b. The coastal structures given their scale and location within a modified coastal environment, and the physical works required undertaken with appropriate mitigation

⁸⁷ Objectives E36.2(1)(5), Policy E36.3(3)(8)

⁸⁸ Objectives E40.2(1-4), Policies E40.3 (1)(3)(5)

⁸⁹ Objectives F2.2.2(1-3), Objectives F2.4.2(1)(2)(3), Policies F2.4.3(4)(5), Objectives F2.11.2(1-3), Policy F2.11.3, Objective F2.14.2(1), Policy F2.14.3(1), Objective F2.16.2, Policy F2.16.3, Objective F2.18.2, Policies F2.18.3(1-3)

measures, will maintain the ecological functioning of the surrounding marine environment;

- c. The wharf extension will be built in a manner which will enable it to rise in relation to any sea level rise within the next 100 years;
- d. The proposed new structures will increase access to the coast and whilst public access will be restricted to the east of Bases C-G and to the east of the Base A, these restrictions are temporary and will not restrict access to the coast in perpetuity (and there may be opportunities for interim access to be provided);
- e. The coastal structures will not impede navigation for existing commercial and recreational users of the harbour; and
- f. The event will enable the sailing community to provide for their social and economic well-being by hosting the event, and which will also create opportunities for related businesses and those with an interest in sailing to provide for their social and economic well-being.

13.19. **H8 Business – City Centre Zone**

13.19.1. Although the site is located within the Business – City Centre Zone the development is governed by the Wynyard and Viaduct Harbour precinct provisions which take precedence. Nonetheless some of the activities associated with the events will be located within this zone and therefore it is necessary to still have regard to the provisions of this zone. The zone aims to maintain and enhance the vibrancy of the city centre through permitting a range of activities but in a manner that maintains the amenity of the city centre and minimises reverse sensitivity effects on identified marine and port activity areas.

13.19.2. Of particular relevance to this application is Policy 15(a) which refers to providing for entertainment and events that enhance the vitality, vibrancy and amenity of the city centre, and Policy 19 that makes provisions for a wide range of activities along the waterfront, while continuing to provide for those activities requiring a harbour location. The event, due to its marine nature, is required to be in waterfront location and will be compatible with surrounding marine-based industries and uses. The events themselves will generate a lot of activity and will create a vibrant atmosphere within the city centre, particularly on race days. I consider the proposal is consistent with these specific policies, and the overall objectives and policies generally.

13.20. **I211 Viaduct Harbour Precinct**

13.20.1. The Viaduct Harbour precinct seeks to provide for a level of development and a range of activities including recreation, leisure, retail, entertainment and community/cultural activities which take advantage of the positioning adjacent to the water's edge. Buildings should be designed in a manner that have well defined edges to public spaces, a sense of enclosure at the built edges of public space, and a visual transition in the height of built form extending from the water's edge of the Viaduct Harbour to the established commercial area of the city centre. The precinct also aims to provide an open space network which connects to other areas of the city and provides for varying recreational needs. The residential character and amenity in Sub-precinct C (the residential units surrounding the Lighter Basin and Inner Viaduct Harbour) is to be maintained to create an attractive place to live for permanent residents.⁹⁰

⁹⁰ Objectives I211.2(1)(2)(3)(5)(6), Policies I211.3(1)(2)(4)(5)(8)

13.20.2. Hobson Wharf, and the proposed extension is located within the Viaduct Harbour Precinct. The proposed development incorporates buildings that are of a similar scale and style to existing surrounding built development, and continues the transition in height of buildings from the commercial area of the city centre to the water edge. Furthermore, the buildings will have defined edges to public space and the open space network will be improved through the additional access route along the wharf extension. Concerns have not been raised specifically in relation to noise and construction effects on the residential units in Sub-Precinct C and although there will be increased levels of activity within the vicinity during construction and the event stage it is considered that given the location of Sub-precinct C is not directly adjoining the construction and event areas, effects will be minimised by the separation distance.

13.21. **I214 Wynyard Precinct**

13.21.1. The Wynyard Precinct represents the largest brownfield area within the city centre and the purpose of this precinct is to provide for the comprehensive and integrated redevelopment of it but still enabling the continued operation of the marine and hazardous industries.

13.21.2. Development/redevelopment should be undertaken in a manner that:⁹¹

- a. Manages conflict between different uses to create a high quality visitor destination with a mix of activities and experiences for all people, areas of public open space that provides for the enjoyment of the coast and area for events and entertainment, maintains and enhances navigation and also the economic functioning of the marine industries.
- b. Consists of an integrated urban environment that has high-quality built form which complements its location between the water edge and the city centre and achieves appropriate form and scale to public open spaces and view shafts.
- c. Protects character buildings and the maritime and industrial history of the area.
- d. Contains a significant area of waterfront public park space.
- e. Manages the environmental effects and risks from the hazardous or dangerous goods activities or facilities and the contamination.
- f. Optimises pedestrian and cycling use and improves connectivity.
- g. Maintains and if appropriate, enhances the safety and capacity of the transport network.

13.21.3. Overall it is considered the proposed development will be consistent with the objectives and policies for this precinct for the following reasons:

- a. The buildings proposed are reflective of the marine environment and will complement existing built development within the precinct.
- b. Operation of the bases and the events can occur without resulting in a health risk or hazard to individuals, or society.
- c. Additional areas of public open space and pedestrian and cycle access ways will be created which link to the existing network of access along the waterfront.
- d. Although there will be restrictions to access along the water edge to the east of Bases C-G and to the east of the VEC building, these restrictions will be temporary (there may also be opportunities for interim access), and when having regard to the increased access with the extension to Hobson Wharf adequate public access to the water will be maintained.

⁹¹ Objectives I214.2(1)(2)(3)(4)(5)(7)(8)(10)(11), Policies I214.3(1)(3)(5)(9)(11)(15)(16e)(26)(31)(33)(34)(35)

- e. As previously discussed, at this present time, it is considered the transport related effects during event periods will be greater than minor and therefore during these periods the safety and capacity of the transport network will not be maintained.

13.22. **Conclusion on Objectives and Policies**

- 13.22.1. I have identified potential inconsistency above with an objective and policy relating to construction noise and vibration (see section 13.11). The successful implementation of measures such as those proposed in the report by Mr Styles/Dr Pine may lessen the extent of that inconsistency. I have also identified a further area of potential inconsistency with an objective and a policy relating to traffic during the event phase (13.12). However, provided that the measures recommended by Ms Coomer-Smit and Ms Crafer of Flow are successfully implemented, then I consider the proposal will not be inconsistent with those provisions.
- 13.22.2. I am otherwise satisfied that the proposal is consistent with the relevant objectives and policies of the AUP. On balance, I would describe the proposal as largely consistent with the objectives and policies of the AUP.

14. **Section 104(1)(c): Any other matters considered relevant and reasonably necessary to determine the application**

- 14.1. Section 104(1)(c) requires that any other matter the consent authority considers relevant and reasonably necessary to determine the application be considered. In this case the following matters are considered relevant.

14.2. **The Auckland Plan (2012)**

- 14.2.1. The Auckland Plan is a long-term strategic plan for the next 30 years to assist Auckland in becoming the world's most liveable city and to achieve this highlights six areas of focus:
 - a. Dramatically accelerate the prospects of Auckland's children and young people.
 - b. Strongly commit to environmental action and green growth.
 - c. Move to outstanding public transport within one system.
 - d. Radically improve the quality of urban living.
 - e. Substantially raise living standards for all Aucklanders with a focus on those most in need.
 - f. Significantly lift Maori social and economic wellbeing.

- 14.2.2. To assist in creating Auckland as the most liveable city the Plan identifies the 'City Centre' initiative which includes reference to the waterfront and seeks to unit it with the city centre and with city centre parks, and for Auckland to become a "water city", a city closely connected to the harbour and coast. The proposed development will be consistent with the aspirations of creating a 'water city' as it will provide additional public open space areas and accessways within the harbour area and the events themselves will showcase the Auckland waterfront on a global scale.

14.3. **City Centre Masterplan 2012**

- 14.3.1. The Auckland City Centre Masterplan (**CCMP**) is developed in accordance with the Auckland Plan and establishes the twenty year vision for development of the Auckland city centre to provide a 'cultural and economic' heart to the city.

- 14.3.2. One of the opportunities to enhance the attributes of the city centre is the creation of an attractive waterfront with an active harbour with connections between the city centre and the waterfront to 'stitch' them together.
- 14.3.3. The CCMP also recognises the role in which the Wynyard Quarter and the Viaduct Harbour can play in strengthening the city centre and making it a more attractive destination. As the leases held by the bulk liquid industries and other activities occurring on Wynyard Point expire over the next 20 years, the land is to be redeveloped to provide for mixed uses alongside the continued operation of the marine and fishing industries. The Viaduct Harbour is to continue providing a mix of residential, retail and dining activities within a high quality built environment with waterfront promenades and open spaces.
- 14.3.4. It is considered the proposed development is in accordance with the vision and outcomes sought by the CCMP. The proposed development facilitates the early departure of some bulk liquid industries from Wynyard Point. Over the ten year consent period, the syndicate bases will add to the mix of marine related industries, and upon their departure, the land on Wynyard Point can be utilised to create the Headland Park anticipated for this area. The operational and event activity will also add to the vibrancy of the Viaduct Harbour and particularly during the event phase, will attract more people to this area. The Hobson Wharf extension, and the syndicate base building on it is considered to be of a design and quality that will complement existing built development.

14.4. **The Waterfront Plan 2012**

14.4.1. The Waterfront Plan is a framework that provides a strategic approach to development across the waterfront of the Auckland city centre and has the following five goals at its core:

- A blue-green waterfront
- A public waterfront
- A smart working waterfront
- A connected waterfront
- A liveable waterfront.

14.4.2. In essence, the Plan aims to create an area that accommodates a range of activities which add to the character and sense of place and is also well connected to the wider city and is an area that can be used by all members of the public.

14.4.3. Overall it is considered the development is in-line with the objectives of this Plan as it will create greater employment and business opportunities on the waterfront, when taking into account the syndicate bases, and industries which will serve the racing boats and associated boats including the superyachts. It will also create additional public open spaces on the waterfront and public access ways.

14.5. **Designations**

14.5.1. Non-statutory planning documents anticipate Wynyard Point as being a destination park which connects through greenways with Victoria Park to the south and to facilitate this there are a number of designations identified on Wynyard Point. The location of Bases C-G is on an area of land subject to designations for public open space.⁹² The area of public open space proposed to the south of these bases is also subject to a designation⁹³. Approval under section 176(1)(b)

⁹² Designation 505 'Public Open Space' and Designation 512 'Public Open Space/Road, Chapter K, AUP:OiP

⁹³ Designation 510 'Public open space and activities and ancillary structures, Chapter K, AUP:OiP

of the RMA has been provided by Auckland Council as the requiring authority for the works within the designation areas.⁹⁴

- 14.5.2. The public open space proposed to the south of Bases C-G will be established on a temporary basis and will incorporate elements that will support public access, use and enjoyment during the events. As this area is designated for public open space and activities and ancillary structures it is considered that the proposed use for this land is consistent with the purpose of the designation.
- 14.5.3. The erection of Bases C-G in an area affected by designations for the purpose of providing open space will not be consistent with the intentions sought by the designation. However, the buildings will be temporary and removed after a period of ten years, and again the requiring authority has given written approval under section 176(1)(b). Auckland Council's 2018-2028 Long-Term Plan does not provide funding for the development of the headland park on Wynyard Point although it does provide funding for further investigations and planning for the delivery of this project. Therefore, it is expected that the development of the headland park will not occur until after 2028, at which time the base buildings will be close to their 'expiration date'. It is therefore considered that the proposed development will not hinder future development of public open spaces on Wynyard Point and will not compromise the existing designations.

15. Submissions

- 15.1. All of the submissions received by Council in the processing of this application have been considered in the overall assessment of effects in this report. Council's specialists and consultants on behalf of Council have also reviewed the relevant submissions as required and incorporated comments into their assessments accordingly. Many of these submissions raised similar issues and have been dealt with generically in the body of this report. Those that have raised specific resource management matters and points of clarification have been specifically addressed in the assessment of actual and potential effects contained in section 9 of this report.
- 15.2. A summary of the issues raised in submissions on the application is provided in **Appendix A**.
- 15.3. Although I have commented on the submissions in Section 9 of this report, there are particular recurring themes which have been expressed in some of the submissions, including the reliance on management plans via conditions of consent to assess and manage effects, requests to be included as a stakeholder in the drafting of management plans, and the lack of iwi engagement, which I address briefly below.

Management Plans

- 15.4. It is acknowledged that the applicant is under significant time constraints in relation to this development and has proposed the use of management plans as a method for providing a greater level of detail at a later date, when detailed design is further progressed. The Council's technical experts have reviewed the technical reports provided with the application and the proposed level of detail for inclusion within the management plans. As a result of these reviews, changes have been proposed to the conditions to make the process and conditions more robust to ensure adverse effects are appropriately mitigated.

Consultation

- 15.5. A number of submitters, particularly those who live or operate businesses within the development area have requested recognition as a 'stakeholder' in condition 36, and the opportunity to be consulted and have input into the drafting of the management plans. This is considered a

⁹⁴ Letter from Mace Ward, General Manager Parks, Sport and Recreation, dated 15 June 2018

reasonable request and I have proposed changes to condition 36 to expand the list of parties to be consulted. In addition, I have recommended the establishment of a Community Liaison Group (I return to this in Section 17 below, “Suggested Conditions”).

Iwi Engagement

- 15.6. As previously discussed, there were also a number of submissions raising concerns in relation to iwi engagement. It is recommended that further iwi consultation occurs, and again I have suggested a number of improvements to the mana whenua engagement condition (condition 22).

16. Section 104D – Particular restrictions for Non-Complying Activities

- 16.1. Pursuant to section 104D of the RMA if a proposal is a non-complying activity then it must pass at least one of the ‘gateway’ tests of either section 104D(1)(a) or section 104D(1)(b) before an application can be assessed under sections 104 and 104B of the RMA. If the application fails both tests of section 104D then the application must be declined.
- 16.2. Under section 104D(1)(a), the adverse effects on the environment are considered to be more than minor. Mr Styles’ assessment indicates that the construction noise and vibration effects will be significant and therefore the adverse effects on the amenity of the surrounding sensitive receivers discussed in Mr Styles’ report is considered to be greater than minor. In addition, Ms Coomer-Smit’s and Ms Crafer’s traffic report indicates that the adverse traffic effects may also be significant during events, and particularly on race days. I also note Mr Kensington’s view concerning the potential for moderate / more than minor adverse effects from one viewpoint (P1) in ‘legacy mode’, arising from the possibility of a large vacant expanse of area on Hobson Wharf following the removal of syndicate Base B.
- 16.3. Under section 104D(1)(b), as discussed in section 13 of this report, it is my opinion that on balance the proposed development will be largely consistent with the relevant objectives and policies of the AUP:OiP (although again I have identified potential inconsistency with certain provisions, particular in relation to noise and vibration).
- 16.4. Therefore, in my opinion, the application meets one of the tests of section 104D of the RMA, and can be assessed against the provisions of sections 104 and 104B of the RMA and a substantive decision made.

17. Suggested Conditions

- 17.1. Pursuant to section 87F(4)(b) of the RMA, a set of suggested conditions has been prepared and is contained in **Appendix U**. I have based these conditions on the applicant’s proposed conditions in Document 7, and have endeavoured to preserve the applicant’s proposed structure and numbering as much as possible. I have added light blue shading for some groundwater and traffic conditions to highlight proposed conditions that have been amended by the applicant post lodgement. In those instances I have included the applicant’s revised wording rather than the original wording as lodged on 13 April 2018.
- 17.2. These conditions have been developed based on the information available at the time of preparing this report and the conditions as proposed by the applicant, and are recommended in the event that the Environment Court determines to grant consent. It is anticipated these proposed conditions will be subject to further refinement, either prior to or during the hearing by the Environment Court.

- 17.3. **Appendix U** incorporates all the recommendations by the Council's technical specialists. I do not re-state their proposed amendments here. In the case of Ms Coomer-Smit's and Ms Crafer's proposed amendments to the traffic conditions, as they note in the Flow report (at paragraph 6.4.2):

In view of the number of traffic and transportation-related amendments to the Proposed Conditions of Consents, and in the interests of efficiency, [they], together with Auckland Transport, have had direct input into the proposed conditions annexure to Council's planning report.

- 17.4. In addition to the technical specialists' proposed amendments, I have recommended a number of further amendments. The 'comment boxes' in **Appendix U** generally draw attention to these. I do not summarise all such changes in this section of my report, many of which will be self-explanatory, but highlight several key changes below:

a. **Definition of "Commencement of Construction":**

I am concerned about the breadth of exclusions that the applicant has provided for in the definition of "Commencement of Construction" in condition 1 (Document 7). For example, if site entrances could be established prior to the approval of the CEMP, there would not be an opportunity for any traffic related effects to be assessed. Similarly, establishment works (service relocation, demolition, access works) can be substantial and require mitigation/monitoring which would be addressed in the CEMP, prior to any other works commencing.

b. **Commencement / Expiry of Consents:**

In place of conditions 4 and 5, I propose a single condition with a table setting out the commencement and duration details for the various resource consents.

c. **Removal / Reinstatement and Legacy Uses:**

I have amended conditions 6 and 7, and added new conditions 6A and 7A-7C to provide a more formal process for dealing with the removal of structures (base buildings B-G and the Wynyard Wharf infill) after 10 years. The applicant's proposed conditions did not provide an adequate framework to manage potential effects associated with these activities. I have made provision for the approval of a Removal and Reinstatement Works Management Plan (**RRWMP**). The RRWMP will be required to address, among other matters, legacy uses, including future pedestrian and cycling access along the coastal edge of Wynyard Wharf, and ongoing use of the Hobson Wharf extension. I note that the applicant provided some draft wording for a condition relating to the legacy use of Hobson Wharf on 19 June 2018. I share Ms Skidmore's and Mr Kensington's view that the applicant's draft conditions suggest some pre-determination of the wharf's future development and use. I prefer the approach suggested in proposed condition 7B of **Appendix U**.

d. **Section 128 Review and Transport Evaluation:**

I have amended the general section 128 review conditions to allow for annual reviews at (b) and (c) for 10 years, rather than 5 years, to reflect the 10 year operational period. I have also recommended a new review condition at (d) to enable the Council to initiate a review at any time during an event to deal with adverse effects. These changes sit alongside the new Transport Evaluation Conditions recommended by Flow, and which I support, at 12A to 12D. These conditions provide for the provision of Transport Evaluation Reports (**TERs**) to enable regular review of traffic management plans during the various phases (construction, operational and event), and potentially amendment of those plans, for reasons explained in the Flow report (e.g. in section 11). Conditions 12A – 12C sit outside the formal RMA section 128 review process, however condition 12D provides the Council with the ability to initiate a section 128 review if need be.

e. **Activities and Development in Accordance with Plans / Documents:**

The applicant's conditions 13 and 14 only required construction of infrastructure to occur "in general accordance" with the drawings in Document DS5. I consider that these conditions should apply to all drawings, application documents, and further information responses with a consenting purpose (as listed in the proposed Annexure to the consent), with the development and activities to be "in accordance with" those plans and documents (subject to any conditions or evidence to the contrary).

f. **Management Plan Certification / Approval Process:**

I have recommended a number of improvements to the "Management Plan Certification" conditions (15 – 21), including to acknowledge that some plans are proposed to be "approved". I propose amending the process for dealing with amendments to management plans to make it clear that Council approval will be required (even for minor changes).

g. **Mana Whenua Engagement**

As discussed above, I have recommended a number of improvements to the mana whenua engagement condition (condition 22).

h. **Stakeholders**

I agree with the suggestion by some submitters that the list of stakeholders in condition 36 should be expanded (and I note that the Flow report supports this at page 48, to ensure adequate consultation occurs), and have made a number of additions accordingly. I note that a number of other conditions cross-reference to this list of stakeholders (conditions 44B, 103, 177, 180 and 184).

i. **Community Liaison Group**

In my opinion, it is appropriate to consider the establishment of a Community Liaison Group or similar entity in this case (see my proposed conditions 44A to 44D). While this will add an additional process from the applicant's perspective, I consider it is likely to lead to better outcomes and engagement.

j. **Fishing Industry**

Proposed conditions 200 – 201 deal with the temporary relocation of the fishing industry during events. I understand that discussions with the fishing industry may be ongoing, however I recommend that a formal process be put in place to manage the temporary relocation of the industry during events. My suggested conditions require a plan to be submitted for approval at least 6 months before any event.

18. Consideration of Part 2 (Purpose and Principles) of the RMA

18.1. I am aware of that a decision is awaited from the Court of Appeal in the **R J Davidson** proceedings⁹⁵ as to whether the 'overall broad judgment approach' applies to decision-making on resource consent applications, and the relevance of Part 2. I have provided a summary of my views in relation to Part 2 below, in case it is required.

18.2. Section 5 identifies the purpose of the RMA as the sustainable management of natural and physical resources. This means managing the use of natural and physical resources in a way that enables people and communities to provide for their social, cultural and economic well-being

⁹⁵ **R J Davidson Family Trust v Marlborough District Council** [2017] NZHC 52.

while sustaining those resources for future generations, protecting the life supporting capacity of ecosystems, and avoiding, remedying or mitigating adverse effects on the environment.

- 18.3. Section 6 sets out a number of matters of national importance which need to be recognised and provided for. These include the preservation of the natural character of the coastal environment, wetlands, and lakes and rivers and their margins (section 6(a)) the protection of outstanding natural features and landscapes (section 6(b)), the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna (section 6(c)), the protection of historic heritage (section 6(f)) and management of significant risks from natural hazards (section 6(h)).
- 18.4. The site does not contain any outstanding natural features and landscapes, and will not result in any removal or damage to any significant indigenous vegetation or significant habitats of indigenous fauna. As previously discussed there are unscheduled cultural heritage items identified on the site and surrounding area, however subject to adherence with Ms Eaves' recommended conditions of consent it is expected that the effects on heritage will be appropriately managed. There are two scheduled items nearby, however they are not affected by the proposed works. The earthworks and structures will be designed and built to take into account land stability, overland flow paths and sea level rise to manage risk from natural hazards.
- 18.5. Section 7 identifies a number of "other matters" to be given particular regard by a consent authority in considering an application for resource consent. Of relevance to this application are kaitiakitanga (section 7(a)), the efficient use and development of natural and physical resources (section 7(b)), the maintenance and enhancement of amenity values (section 7(c)), intrinsic values of ecosystems (section 7(d)), maintenance and enhancement of the quality of the environment (section 7(f)) and the effects of climate change (section 7(i)).
- 18.6. The proposed development has a functional need to be in the coastal environment and it is considered that the built form, including the coastal structures and the buildings, are consistent with surrounding development and will not result in development further extending into the harbour. The operational activities and the events themselves will contribute to the vitality and vibrancy of the area, enhancing the character and amenity values of the area. As previously mentioned, the site is in a highly modified environment and the works will be undertaken in an appropriate manner to ensure the existing ecological values are maintained.
- 18.7. Section 7(a) requires particular regard to be had to Kaitiakitanga, while section 8 requires the deciding authority to take into account the principles of the Treaty of Waitangi.
- 18.8. As previously discussed, there has been concern raised by iwi groups with an interest in the Waitemata Harbour that effective engagement with them by the applicant has not occurred. It is my understanding that engagement with iwi is ongoing, and this is encouraged to ensure that the principles of the Treaty of Waitangi are taken into account, and that Kaitiakitanga is recognised and provided for.

19. Planner's Recommendation

- 19.1. Based on the information available at the time of preparing this report, it is recommended that pursuant to sections 87G, 104, 104B and 104D of the RMA, the following notified application by Panuku Development Auckland Limited being:
 - a) A land use application for the establishment of structures associated with the America's Cup and also for the event itself. Consent is also sought for the associated land disturbance activities, including earthworks and tree removal, and also infringement of the noise and vibration standards.
 - b) An application for the discharge of contaminants to land and water as a result of storage of the dredged material and potential use in construction.

- c) An application for the diversion of ground water associated with ground stabilisation works.
- d) An application for the diversion and discharge of stormwater runoff associated with the impervious areas for each Bases C-G.
- e) An application for structures within the coastal marine area including infill deck areas to Wynyard Wharf, a 74m extension to Hobson Wharf, four new breakwaters, and wave panels on Hobson Wharf (including the extension) and Halsey Wharf.
- f) An application for the occupation of the common marine and coastal marine area in association with the aforementioned structures.
- g) An application for capital works dredging within the coastal marine area to increase navigable facilitate construction of the coastal structures and create adequate depths for the boats.
- h) An application for the America's Cup events to be held within the coastal marine area.
- i) An application for the discharge of contaminants into air associated with storage of the dredged materials and use of cement during construction.
- j) An application for the discharge of industrial or trade activities.
- k) An application for other discharges of contaminants.
- l) An application for disturbance of contaminated land under the NES regulations.

On land located within the Wynyard and Viaduct Harbour precincts and also within the adjoining CMA be **granted** subject to the draft proposed conditions set out in **Appendix U**.

AUTHOR:



Nicola Broadbent
Processing Planner

Dated 22 June 2018

APPENDIX A

SUMMARY TABLE OF ISSUES RAISED IN SUBMISSIONS

Submission Number	Submitter name	Support/Oppose/Neutral	Wish to be heard	Summary of Submission Issues	Relief Sought
1	Jeremy John Stevens	Oppose	Yes	<ul style="list-style-type: none"> • Opposes 74m extension into the harbour with a 15m high building. • Visual impact on residents and commercial businesses. • Effect of pile driving on marine life and potential damage to Princes Wharf. • Wynyard Point should be used to house all the Bases. 	Decline.
2	Spirit of Adventure – Dean Lawrence	Support	No	<ul style="list-style-type: none"> • Manoeuvring area for the Spirit of New Zealand vessel needs to be retained to ensure arrival, berthing and departure not affected by works or event. • Impact on pedestrian and vehicular traffic on Princes Wharf. 	Approve.
3	Richard Hanson	Support	No	<ul style="list-style-type: none"> • No matters raised (“accept in full”). 	Approve.
4	Coralie van Camp	Supports in part	Yes	<ul style="list-style-type: none"> • Opposes 74m extension into the water-space. 	Approve in part.
5	Vector Limited – Kate Richardson	Neutral	Yes	<ul style="list-style-type: none"> • Protection of Vector’s assets and infrastructure during all stages of the proposal. 	Proposed condition 36 amended to include Vector.
6	Stuart MacKinven	Support	No	<ul style="list-style-type: none"> • Consider more super yacht berths • Ensure the marine industry (including “site 18”) is maintained. 	Approve.
7	William Basil Orr	Support	No	<ul style="list-style-type: none"> • No matters raised (“grant... as applied for without change”). 	Approve.
8	Hirepool Limited	Support	Yes	<ul style="list-style-type: none"> • Traffic concerns during the construction period and event(s). • Seek to ensure access to their site on the corner of Beaumont Street and Pakenham Street is maintained at all times and their operations are not compromised. 	Approve subject to conditions of consent which maintain access to their site and requires consultation with Hirepool and other affected businesses prior to, and during the development and implementation of any event and traffic management plan.
9	Yachting New Zealand (Dave Abercrombie)	Support	No	<ul style="list-style-type: none"> • Great opportunity to create a facility which promotes yachting and boating in the Viaduct and for other events to be run. 	Approve.

10	Andrew Turner	Support	No	<ul style="list-style-type: none"> Supports the application in whole, in particular the location of the team bases and the creation of a long-term base for ETNZ. 	Approve.
11	Lance Wiggs	Support	Yes	<ul style="list-style-type: none"> Supports the removal of the tank farm and the closure of Brigham Road. Remove non-resident car parking from the area, but retain parks for campers at end of Point. Remove all car parks on Te Wero island and eastern viaduct. Re-prioritise Te Wero bridge to pedestrians. Create an area more user friendly for pedestrians and cyclists, with e.g. lower maximum speeds and physical traffic management measures. Noise concerns for adjoining residents. Buildings constructed to withstand natural hazards, and “not insured by taxpayer money” Fencing next to water in high pedestrian areas. 	Approve.
12	Andrew Clouston	Support	No	<ul style="list-style-type: none"> The event will create benefits to Auckland and NZ (tourism, raising profile of sailing etc). Creation of a legacy facility, and long term base for ETNZ. 	Approve.
13	Barry Jeffery	Support	Yes (assume yes - not specified)	<ul style="list-style-type: none"> VEC permitted to be decorated with associated bunting/flags/lighting (including strobe lighting). 	Approve.
14	David & Diana Daniel	Oppose	No	<ul style="list-style-type: none"> Encroachment into the harbour. 	Decline to the extent that it involves further encroachment into the harbour.
15	Auckland City Centre Residents Group (CCRG) – Noelene Buckland	Support	Yes	<ul style="list-style-type: none"> Do not support a blanket 10 year time frame. Sites to be cleared within 5 years if ETNZ do not win the challenge to enable the land to be developed as a ‘Headland Park’. Do not support 75m extension of Hobson Wharf, fill in area behind current breakwater west of Hobson Wharf instead. 	Approve but require buildings to be removed after 5 years if ETNZ are unsuccessful, and removal of 75m extension.
16	Lynn Shrewsbury	Support	No	<ul style="list-style-type: none"> No matters raised (“support whole application”). 	Approve.
17	SPLICE – Courage Compassion Community (Mike Smellie)	Support	No	<ul style="list-style-type: none"> Restrictions on public access should be kept to a minimal. Legacy – design for the future. 	Approve subject to addressing public access, legacy, green passage and retaining vibrancy.

				<ul style="list-style-type: none"> Retention of vibrancy to the area. Maintain a green passage from Victoria Park to Headland Park. 	
18	William C Daldy Preservation Society (Keith Ingram)	Support	Yes	<ul style="list-style-type: none"> New comparable berth sought for the tug <i>William C Daldy</i>. 	Approve but alternative berth needed for the tug
19	NZ Composites Ltd (Dean Pannett)	Support	No	<ul style="list-style-type: none"> Loss of land and water front access for the long term operation of the marine industry. 	Approve but ensure land water access for the marine industry to operate.
20	Charlotte M Fisher	Oppose	No	<ul style="list-style-type: none"> Use of (“taking”) public land. Encroachment into harbour (“taking public seaways”). Building large structures on land and sea. Adverse visual effects from advertising. Legacy issues – Auckland doesn’t need another waterfront venue. Prioritise open space on and around Tank Farm. 	Decline – Prioritise the Tank Farm park not AC36 infrastructure.
21	Precinct Properties New Zealand Limited (Alain McKinney)	Conditional support	Yes	<ul style="list-style-type: none"> Effects on Precinct’s tenants and construction activities. Traffic management and parking. 	Further detail to be provided on traffic management and parking. Precinct to be included as a party in any conditions related to management plans during construction and events, active engagement with WQTMA required.
22	Geraldine Speed	Oppose	No	<ul style="list-style-type: none"> Encroachment into the harbour. Visual effects arising from the structure on Hobson Wharf. Duration of consent. Event Management Plans should include consultation with Residential Body Corporates. 	Conditions that permit the shed on Hobson Wharf only after all bases on Wynyard Point have been fully utilised. The consent should be granted for the AC36 event only and the structures on Hobson Wharf are removed. Event Management Plans should include consultation with Residential Body Corporates.
23	Stewart Speed	Oppose	No	<ul style="list-style-type: none"> Encroachment into the harbour. Visual effects arising from the structure on Hobsons Wharf. Duration of consent. 	Conditions that permit the shed on Hobson Wharf only after all bases on Wynyard Point have been fully utilised.

				<ul style="list-style-type: none"> Event Management Plans should include consultation with Residential Body Corporates. 	<p>The consent should be granted for the AC36 event only and the structures on Hobson Wharf are removed.</p> <p>Event Management Plans should include consultation with Residential Body Corporates.</p>
24	Richard R Cobb	Support	Yes	<ul style="list-style-type: none"> Spaces to be created should be protected in perpetuity as open public areas available on a temporary basis for structures relating to marine events. 	Approve subject to a condition protecting the spaces created in perpetuity as public open spaces.
25	Robert H Brown	Support	No	<ul style="list-style-type: none"> Berthing space should be made available for large heritage vessels. 	Approve but with berthing available for large heritage vessels in a high foot traffic area.
26	Peter J McCurdy	Oppose	Yes	<ul style="list-style-type: none"> Berthing space should be made available for large heritage vessels. 	If granted impose conditions requiring berthing available for large heritage vessels and no loss of material maritime heritage.
27	Ike Finau	Oppose	Yes	<ul style="list-style-type: none"> Treaty claims/Land title. Jurisdiction issues. 	CLlr Denise Roche to prove acted responsibly and within the law.
28	Dilp Rupa	Oppose	Yes	<ul style="list-style-type: none"> Treaty claims/Land title. Jurisdiction issues. 	Decision to be made by the PM and the Governor General.
29	Frances Stead	Oppose	Yes	<ul style="list-style-type: none"> Encroachment into the harbour. Visual effects arising from the structure on Hobsons Wharf. Duration of consent. Event Management Plans should include consultation with Residential Body Corporates. 	<p>Conditions that permit the shed on Hobson Wharf only after all bases on Wynyard Point have been fully utilised.</p> <p>The consent should be granted for the AC36 event only and the structures on Hobson Wharf are removed.</p> <p>Event Management Plans should include consultation with Residential Body Corporates.</p>
30	Russell Hall	Oppose	Yes	<ul style="list-style-type: none"> Encroachment into the harbour. Visual effects arising from the structure on Hobsons Wharf. Duration of consent. Event Management Plans should include consultation with Residential Body Corporates. 	<p>Conditions that permit the shed on Hobson Wharf only after all bases on Wynyard Point have been fully utilised.</p> <p>The consent should be granted for the AC36 event only and the structures on Hobson Wharf are</p>

					removed. Event Management Plans should include consultation with Residential Body Corporates.
31	Elizabeth M Greive	Oppose	Yes	<ul style="list-style-type: none"> • Encroachment into the harbour. • Visual effects arising from the structure on Hobsons Wharf. • Duration of consent. • Event Management Plans should include consultation with Residential Body Corporates. 	Conditions that permit the shed on Hobson Wharf only after all bases on Wynyard Point have been fully utilised. The consent should be granted for the AC36 event only and the structures on Hobson Wharf are removed. Event Management Plans should include consultation with Residential Body Corporates.
32	The Tree Council David P C Smith	Neutral	Yes	<ul style="list-style-type: none"> • The Tree Council supports transplanting trees, and in this particular instance, Tree Number 1. 	Approve subject to Tree Number 1 being transplanted to a suitable location.
33	Viaduct Harbour Holdings Limited	Oppose	Yes	<ul style="list-style-type: none"> • Extension to Hobson Wharf. • Suggests northern 10m of extension should be deleted/provided as temporary structure. • Inclusion of VHHL as stakeholder. • Adverse visual and urban design effects arising from Base B on Hobson Wharf. • Proposed flexibility for syndicates to depart from the base design guidelines. • Construction effects – traffic, noise and vibration. • Traffic conditions and pedestrian connectivity and safety throughout the Viaduct Harbour and Wynyard Precincts. • Use of management plans to address effects. 	Decline, unless concerns addressed.
34	Auckland Yacht & Boating Association Inc	Support	Yes	<ul style="list-style-type: none"> • Development is fit for purpose. • Will create a successful “Cup Village” atmosphere. • Benefits for Auckland and NZ. • Base design provides for a permanent facility and for future marine events. 	Approve. Request flexibility in the design envelope for structure in base areas.
35	Gavin J Webber	Oppose	No	<ul style="list-style-type: none"> • Encroachment into the harbour. • Visual effects arising from the structure on Hobsons Wharf. • Duration of consent. 	Conditions that permit the shed on Hobson Wharf only after all bases on Wynyard Point have been fully utilised.

				<ul style="list-style-type: none"> Event Management Plans should include consultation with Residential Body Corporates. 	<p>The consent should be granted for the AC36 event only and the structures on Hobson Wharf are removed.</p> <p>Event Management Plans should include consultation with Residential Body Corporates.</p>
36	Orams Marine - Neven Barbour	Support	Yes	<ul style="list-style-type: none"> Supports all aspects. 	Approve.
37	Te Akitai Waiohua Waka Taua Incorporation	Oppose	Yes	<ul style="list-style-type: none"> Cultural effects not appropriately identified or provided for. Lack of timely and effective engagement. 	Sufficient time to be provided for effective and meaningful consultation.
38	Ngaati Whanaunga Incorporated Society	Oppose	Yes	<ul style="list-style-type: none"> Cultural effects not appropriately identified or provided for. Lack of timely and effective engagement. 	Sufficient time to be provided for effective and meaningful consultation.
39	The Point Body Corporate	Conditional Support	Yes	<ul style="list-style-type: none"> Development on Hobson Wharf. Need for extension to Hobson Wharf. 10 year consent period for Base B. Residential Body Corporates located within the Viaduct Harbour should be included in the list of affected parties to be consulted with as noted in conditions of consent. Proposed management plan process fails to give sufficient certainty on avoiding or mitigating adverse effects. Proposed condition 194 is incorrect in relation to noise standards. 	<ul style="list-style-type: none"> Undertake a Plan Change in relation to development on Hobson Wharf If fewer than 7 syndicates are confirmed for the event Base B and the extension to Hobson Wharf should not occur In the event Base B is required it should be removed after the 2021 event Include the residential body corporates in the Viaduct Harbour to the list of consultation parties in relation to conditions of consent and management plans Amend condition 194 to include crowd noise and reference the correct AUP provisions.
40	Ngati Whatua Orakei – Andrew Brown	Neutral	Yes	<ul style="list-style-type: none"> Event will bring positive benefits but must be mindful of adverse effects. 	Ngati Whatua Orakei recognised as the lead iwi in mana whenua

				<ul style="list-style-type: none"> • Legacy issues not properly addressed. • An appropriate cultural offset is required to address impacts on the mauri of the Waitemata. 	engagement. Appropriate cultural expression should be secured during the event and in the legacy phase, by condition precedent requirement for a binding cultural design statement.
41	The Crown	Support	Yes	<ul style="list-style-type: none"> • Cultural, social and economic benefits to Auckland and NZ. • Legacy infrastructure for future events. • Provides value for money. 	Approve subject to appropriate conditions.
42	Jack Tar	Conditional Support	Yes	<ul style="list-style-type: none"> • Loss of amenity and view from their restaurant/bar on North Wharf. • Temporary construction effects on the business. • Adverse physical effects from construction. 	Modify breakwaters, wharf extension and other structures in front of their building. Impose a condition regarding a construction management plan. Clarification on the location of the new pontoons in the vicinity of the restaurant/bar and any structure related to them.
43	The Conservatory	Conditional Support	Yes	<ul style="list-style-type: none"> • Loss of amenity and view from their restaurant/bar on North Wharf. • Temporary construction effects on the business. • Adverse physical effects from construction. 	Modify breakwaters, wharf extension and other structures in front of their building. Impose a condition regarding a construction management plan. Clarification on the location of the new pontoons in the vicinity of the restaurant/bar and any structure related to them.
44	Thirty Seven South Ltd - Mark Illingworth	Support	Yes	<ul style="list-style-type: none"> • Attraction of Auckland to superyachts. • Maintaining marine facilities within the location. 	Grant subject to the protection of existing zoned Marine spaces to the west of Beaumont St and north of Fanshaw Street (including Site 18).
45	Auckland Business Chamber of Commerce – Michael Barnett	Support	Yes	<ul style="list-style-type: none"> • Satisfactory arrangements made for the relocation of ferry and fishing industry. • Development should be permanent rather than for a 10 year period to create a first class facility. 	Approve subject to making the consent for a permanent period as opposed to 10 years.
46	Ngati Tamatera	Oppose	Yes	<ul style="list-style-type: none"> • Cultural effects not appropriately identified or provided for. 	Sufficient time to be provided for effective and meaningful

				<ul style="list-style-type: none"> Sufficient time to be provided to enable effects and meaningful consultation. 	consultation.
47	Sealink Travel Group New Zealand Limited	Oppose	Yes	<ul style="list-style-type: none"> Requires relocation without any alternative suitable site for them to relocate to. 	Decline.
48	Combined Owners & Residents of Apartments in Sheds 19, 20, 22, 23 & 24 Princes Wharf	Oppose	Yes	<ul style="list-style-type: none"> Construction noise and vibration. Extension to Hobson Wharf and the base building. The building should be removed after the 2021 event, or in the event it is retained for 10 years it should not be used as restaurant, bars and/or other entertainment venues due to noise. 	Decline.
49	Fu Wah New Zealand Limited	Conditional Support	Yes	<ul style="list-style-type: none"> Lack of information on construction effects Management of effects during the event Number of bases to be built unclear. 	<ul style="list-style-type: none"> Consultation with Fu Wah during the construction phase Traffic management to maintain pedestrian and vehicle access for users of Fu Wah developments Parking management during construction and events Consultation with Fu Wah in relation to Event Management Plans.
50	Ngati Tamaoho Trust	Oppose	Yes	<ul style="list-style-type: none"> Cultural effects not appropriately identified or provided for. Sufficient time to be provided to enable effects and meaningful consultation. 	Sufficient time to be provided for effective and meaningful consultation.
51	Sail World New Zealand Ltd – Richard J Gladwell	Support	Yes	<ul style="list-style-type: none"> No long term base for ETNZ. No village hub. No long term plan for Wynyard Point and Viaduct Harbour. No long term vision for future challenges. No provision for servicing superyachts in the legacy stage. Breakwaters will not provide the calm waters required. Media centre required. Lack of consideration of security measures. 	Approve subject to points raised in submission.
52	Bike Auckland – Barbara Cuthbert	Support	Yes	<ul style="list-style-type: none"> Maintaining and enhancing cycle paths which are safe to use. 	Approve with enhanced cycle facilities.

				<ul style="list-style-type: none"> • Shared paths will become problematic with the increase in traffic and pedestrians in the area. • Consider upgrading of existing cycle facilities. • Educate construction staff around the safety needs of cyclists and pedestrians. • Well located bike parking required. • Efficient and responsive communications channels required. 	
53	Brett MacLean	Oppose	Yes	<ul style="list-style-type: none"> • Encroachment into the harbour. • Visual effects arising from the structure on Hobsons Wharf. • Duration of consent. • Event Management Plans should include consultation with Residential Body Corporates. 	<p>Conditions that permit the shed on Hobson Wharf only after all bases on Wynyard Point have been fully utilised.</p> <p>The consent should be granted for the AC36 event only and the structures on Hobson Wharf are removed.</p> <p>Event Management Plans should include consultation with Residential Body Corporates.</p>
54	Ngai Tai ki Tamaki – Zaelene Maxwell-Butler	Oppose	Yes	<ul style="list-style-type: none"> • Cultural effects not appropriately identified or provided for. • Lack of meaningful engagement to appropriate identify and provide for cultural effects. 	Sufficient time to be provided to enable effective and meaningful consultation.
55	Firth Industries (Division of Fletcher Concrete & Infrastructure Limited) – James H Willoughby	Neutral	Yes	<ul style="list-style-type: none"> • Further details sought on the traffic report prepared by Beca. • Maintaining access for Firth to continue operating. • Pedestrian routes and public spaces conflicting with the operation of heavy vehicles. 	<p>Conditions seeking the following:</p> <ul style="list-style-type: none"> • 27hr/7 day road access for all Firth operational vehicles via Hamer Street/Beaumont Street • Robust traffic management plan for all future construction activities and events • Restrict volume of truck and vehicle movements to those detailed in the Beca report • Measures to be put in place to separate pedestrians from Hamer Street/Beaumont Street.

56	Te Patukirikiri Iwi Trust	Oppose	Yes	<ul style="list-style-type: none"> • Cultural effects not appropriately identified or provided for. • Lack of meaningful engagement to appropriate identify and provide for cultural effects. 	Sufficient time to be provided to enable effective and meaningful consultation.
57	Wynyard Quarter Transport Management Association	Support	Yes	<ul style="list-style-type: none"> • Transportation and traffic effects. • Application not clear on increased traffic volumes. • Lack of sufficient detail to show that access to and from existing businesses will be maintained. • Little detail on what the proposed 'Event Management Plan' will entail. 	<p>Approve subject to conditions:</p> <ul style="list-style-type: none"> • WQTMA identified as a stakeholder within the conditions • Condition requiring an Event Communications Plan • WQTMA provided with an opportunity to comment on a number of the plans noted in the proposed conditions.
58	Ngati Maru Runanga Trust	Oppose	Yes	<ul style="list-style-type: none"> • Cultural effects not appropriately identified or provided for. • Lack of meaningful engagement to appropriate identify and provide for cultural effects. 	Sufficient time to be provided to enable effective and meaningful consultation.
59	Heart of the City – Viv Beck	Support	Yes	<ul style="list-style-type: none"> • Visual and environmental impact • Public space and amenity • Legacy • Access and traffic • Business and community disruption. 	<p>Approve subject to following:</p> <ul style="list-style-type: none"> • HOTC identified as key stakeholder • Base buildings limited to 5 years • Guidelines applied to achieve quality spaces and integration with existing plaza and promenade areas • Legacy plan required outlining details of the proposed range of legacy facilities and activities of a public nature • HOTC to be consulted in relation to traffic management and transport plans • Development of an Event Communications Plan and

					a Business and Community Disruption Plan which provides for engagement with HOTC.
60	John W Mandeno	Oppose	No	<ul style="list-style-type: none"> • Encroachment into the harbour. • Visual effects arising from the structure on Hobsons Wharf. • Duration of consent. • Event Management Plans should include consultation with Residential Body Corporates. 	<p>Conditions that permit the shed on Hobson Wharf only after all bases on Wynyard Point have been fully utilised.</p> <p>The consent should be granted for the AC36 event only and the structures on Hobson Wharf are removed.</p> <p>Event Management Plans should include consultation with Residential Body Corporates.</p>
61	Brent Impey & Wendy Palmer	Oppose	No	<ul style="list-style-type: none"> • Encroachment into the harbour. • Visual effects arising from the structure on Hobsons Wharf. • Duration of consent. • Event Management Plans should include consultation with Residential Body Corporates 	<p>Conditions that permit the shed on Hobson Wharf only after all bases on Wynyard Point have been fully utilised.</p> <p>The consent should be granted for the AC36 event only and the structures on Hobson Wharf are removed.</p> <p>Event Management Plans should include consultation with Residential Body Corporates.</p>
62	Ngati Te Ata – Roimata Minhinnick	Neutral	Yes	<ul style="list-style-type: none"> • Opportunity to revitalise and celebrate Maori culture, and to enable Ngati Te Ata and other mana whenua to participate and exercise Kaitiakitanga. • Ensure no prejudicial impact on Waitemata Moana. • Recognise and provide for cultural relationship of Ngati Te Ata to area. 	Further discussions with applicant to provide cultural input.
63	Heritage New Zealand Pouhere Taonga – Sherry Reynolds	Oppose in part	Yes	<ul style="list-style-type: none"> • Heritage Impact Assessment (HIA) required by a suitably qualified person. • The Proposed Protected Objects Protocol in document 8 of the application, and proposed condition 45 are ultra vires and override existing heritage protection measures. • Supports the temporary nature of the base buildings and seeks commitment to retention and 	Consent not be granted until a HIA has been provided and Document 8/condition 45 are removed from the proposal and replaced with more appropriate accidental discovery protocol.

				incorporation of existing heritage elements reflective of the industrial and maritime legacy of the area.	
64	New Zealand Marine Industry Association – Peter Busfield	Support	Yes	<ul style="list-style-type: none"> Increased business for the marine industry. Loss of the VEC for the Auckland On Water Boat Show. Temporary nature of the consent not providing for maintaining and growing the yacht/marine industry. Lost opportunity for a permanent commercial marina to be established. Insufficient superyacht mooring based on expected demand. 	Approve.
65	Empire Capital Limited – David Boersen	Support	Yes	<ul style="list-style-type: none"> Temporary structures to be removed in future as proposed. Traffic management maintained to provide continuous access to parking structures accessed off Viaduct Harbour Avenue. 	Approve.
66	Westhaven Marina Users Association Inc (WMUA)	Support	Yes	<ul style="list-style-type: none"> Relocation of the resident sea leopard prior to any construction works. Relocation of carparks into Westhaven Marina which is already under pressure. Safety concerns with the relocation of the fishing and ferry industry and greater risk of accidental collision. 	Approve subject to WMUA having further input into the development.
67	Rushworth Cafe	Conditional Support	Yes	<ul style="list-style-type: none"> Loss of amenity and view from their restaurant/bar on North Wharf. Temporary construction effects on the business. Adverse physical effects from construction. 	Modify breakwaters, wharf extension and other structures in front of their building. Impose a condition regarding a construction management plan. Clarification on the location of the new pontoons in the vicinity of the restaurant/bar and any structure related to them.
68	William J Strower & Shelley A Hodge	Oppose	Not stated	<ul style="list-style-type: none"> Encroachment into the harbour. Visual effects arising from the structure on Hobsons Wharf. Duration of consent. Event Management Plans should include consultation with Residential Body Corporates. 	Conditions that permit the shed on Hobson Wharf only after all bases on Wynyard Point have been fully utilised. The consent should be granted for the AC36 event only and the structures on Hobson Wharf are

					removed. Event Management Plans should include consultation with Residential Body Corporates.
69	Sanford Limited & Auckland Fishing Port Limited	Oppose	Yes	<ul style="list-style-type: none"> Relocation of the fishing industry. Alternative berthage and facilities, either on a temporary or permanent basis is required which has access to services and ability for vessels to berth on any tide. 	Decline.
70	Lighter Quay Body Corporates	Oppose	Yes	<ul style="list-style-type: none"> Proposed Hobson Wharf extension and Base B will have significant long term effects on coastal character, harbour and views. Ten year consent period. Input into the management plan and certification process. Noise and vibration construction effects. 	Decline or impose appropriate conditions to address concerns noted.
71	Kiwi Property Group Limited	Oppose	Yes	<ul style="list-style-type: none"> Amenity, noise, visual and vibration effects related to construction on occupiers and visitors to the ASB Building. Vehicular and pedestrian accessibility of the ASB building to workers and visitors. Traffic effects and ongoing monitoring of these required. Public pedestrian safety. Carparking availability for workers and visitors to the ASB Building. KPG to be included as party to be consulted with during the management plan drafting. Management plans to be drafted and certified after the consenting process is complete. 	Decline unless conditions imposed on an approval addressing their concerns.
72	KPMG	Conditional Support	Yes	<ul style="list-style-type: none"> Traffic and transportation. Legacy infrastructure. Seek assurances infrastructure will be carefully designed. 	Granted subject to conditions providing access to and from 18 Viaduct Harbour Ave during construction and the event period. KPMG is listed as a stakeholder in the conditions related to traffic, transportation and legacy matters.

73	Kensington Swan	Conditional support	Yes	<ul style="list-style-type: none"> • Transportation and traffic effects. • Legacy infrastructure. • Seek assurances infrastructure will be carefully designed. 	Granted subject to conditions providing access to and from 18 Viaduct Harbour Ave during construction and the event period and Kensington Swan is listed as a stakeholder in the conditions related to traffic, transportation and legacy matters.
74	Auckland Theatre Company	Conditional Support	Yes	<ul style="list-style-type: none"> • Transportation / traffic and parking effects. • Legacy infrastructure (should improve current arts and cultural offering of the area). 	Granted subject to access being provided to the ASB Waterfront Theatre, no reduction in car parks available to patrons, listed as a stakeholder in the conditions related to traffic, transportation and legacy matters.
75	Team New Zealand Limited (ETNZ)	Support	Yes	<ul style="list-style-type: none"> • Proposed changes to conditions (e.g. to allow up to 500 people in bases at one time). • Should not be a rigid application of the design guidelines. • Flexibility in use of team buildings, envelopes and base areas. 	Grant subject to amendments to conditions.
76	America's Cup Event Limited	Support	Yes	<ul style="list-style-type: none"> • Proposed changes to conditions (e.g. to allow up to 500 people in bases at one time). • Should not be a rigid application of the design guidelines. • Flexibility in use of team buildings, envelopes and base areas. 	Grant subject to amendments to conditions.
77	Royal New Zealand Yacht Squadron	Support	Yes	<ul style="list-style-type: none"> • Proposed changes to conditions (e.g. to allow up to 500 people in bases at one time). • Should not be a rigid application of the design guidelines. • Flexibility in use of team buildings, envelopes and base areas. 	Grant subject to amendments to conditions.
78	ASB Bank Limited	Conditional Support	Yes	<ul style="list-style-type: none"> • Transportation including traffic and parking. • Adverse construction effects. • Noise from events. • Security and safety of public and staff. • Utilities, services and amenities. 	Grant subject to access being provided to ASB offices throughout construction and operational period, no reduction in current car parks available to

				<ul style="list-style-type: none"> • Legacy infrastructure. • Seek assurances infrastructure will be carefully designed. 	visitors and staff of ASB, disruption to ASB business minimised, ASB is listed as key stakeholder in conditions relation to traffic/transport, parking, and construction and legacy matters.
79	Willis Bond and Company Limited	Conditional support	Yes	<ul style="list-style-type: none"> • Appropriate measures required to protect residential amenity, the operations of commercial/retail tenants, and ability to construct own consented developments. • Construction effects. • Construction and event management plans. • Traffic management during the events. • Parking management during construction and event phase. 	Grant subject to consultation being undertaken with them regarding construction activities, greater detail provided in the construction and event management plan conditions, traffic management conditions to maintain pedestrian and vehicular access and parking, Wills Bond & Co to be listed as a consultee for conditions relating to construction, event or other management plans.
80	Challenger of Record AC36	Support	Yes	<ul style="list-style-type: none"> • Proposed changes to conditions (e.g. to allow up to 500 people in bases at one time). • Should not be a rigid application of the design guidelines. • Flexibility in use of team buildings, envelopes and base areas. 	Grant subject to amendments to conditions.
81 (LATE)	Kawau Island Action Incorporated Society	Oppose	Yes	<ul style="list-style-type: none"> • Failure to provide continuous public access along waterfront. 	Decline or provide facilities for public access.
82	St Mary's Bay Association Inc (David Abbott)	Unclear (expresses both support and opposition)	Yes	<ul style="list-style-type: none"> • Hazards from the tank farm addressed (potential health and safety hazard). • Potentially affects integrity of the Waterfront Plan • Relocation of the ferry & fishing industries. • Locating buildings to maintain harbour edge access and effects of buildings (height and bulk). • Stormwater discharge and risk to water quality. 	Opposes proposal until its concerns are addressed.
83 (LATE)	Peter A Lawn	Oppose	Yes	<ul style="list-style-type: none"> • Encroachment into the harbour. • Visual effects arising from the structure on Hobsons Wharf. • Duration of consent. 	Conditions that permit the shed on Hobson Wharf only after all bases on Wynyard Point have been fully utilised.

				<ul style="list-style-type: none">• Event Management Plans should include consultation with Residential Body Corporates.	<p>The consent should be granted for the AC36 event only and the structures on Hobson Wharf are removed.</p> <p>Event Management Plans should include consultation with Residential Body Corporates.</p>
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APPENDIX B

DR KALA SIVAGURU

ECOLOGY REPORT

Technical memo- Specialist Unit

To:	Nicola Broadbent, Tracey Grant
CC:	Alan Moore – Principal Specialist
From:	Kala Sivaguru, Senior Specialist - Coastal
Date:	19 June 2018

1.0 PROPOSAL, SITE AND LOCALITY DESCRIPTION

Proposal relevant to this assessment

- 1.1 This memo provides a peer review of the applicant's assessment of the potential effects of the America's Cup 36 Application on marine ecology, water and sediment quality.
- 1.2 I have reviewed the following documents and reports:
- (a) "Application for Resource Consent: Assessment of Environmental Effects, America's Cup Wynyard Hobson", prepared by UNIO Environmental Ltd, dated 13 April 2018 (Application Document 4).
 - (b) "Assessment of Coastal Environmental Effects Associated with the Development of America's Cup Facilities for the Wynyard Hobson Option", prepared by Golder Associates, dated April 2018 (the "**Golder Report**", Application Document 17).
 - (c) "Ecological assessment of marine assemblages of the Halsey Street Wharf and Viaduct Harbour" prepared by NIWA, dated December 2017 (the "**NIWA Report**", Appendix A to the above report).
 - (d) "America's Cup, Wynyard Hobson Coastal Processes & Dredging Technical Report" prepared by Tonkin & Taylor, dated April 2018 (the "**Coastal Processes and Dredging Report**", Application Document 16).
 - (e) "America's Cup Physical Infrastructure Technical Report for Resource Consent Application, Wynyard Hobson" prepared by Beca Ltd, dated April 2018 (the "**Physical Infrastructure Report**", Application Document 9).
 - (f) The applicant's Proposed Consent Conditions (Application Document 7).
- 1.3 The applicant (Panuku Development Auckland) seeks resource consents for the syndicate base infrastructure, event infrastructure, and associated activities for the AC 36 event.
- 1.4 The proposal involves three main elements:

- a. Events: The use and operation of land and water space associated with the 36th America's Cup event to be held in the six month period from December 2020 to May 2021 and any subsequent America's Cup event(s);
- b. Operations: The use and operation of the syndicate bases (buildings and associated yards on land/wharves and water space) for a period up to 10 years from the commencement of consent;
- c. Infrastructure: The construction and establishment of the wharves, piles, berths, buildings, other structures, and related works, services and access (including ground improvement works, contamination management, earthworks) including all event related structures and services. This infrastructure will be provided on a temporary and permanent basis.

CMA Infrastructure

- 1.5 The infrastructures proposed to be located in the CMA includes both permanent and temporary facilities and includes:

Permanent

- a. A 74m long extension to Hobson Wharf;
- b. Four new breakwaters;
- c. Wave panels on/adjacent to Hobson Wharf, Hobson Wharf extension and Halsey Wharf and the breakwaters;
- d. Wynyard Wharf 'wharf infill' for (up to 50%); and
- e. Physical modifications to the Viaduct Events Centre (VEC) including the following key changes:
 - i. Removal of the eastern public access ramp to the northern public viewing deck and replacement with a lift on the western side of the building;
 - ii. Modifications to the eastern façade of the building to construct new doors to facilitate for use as a syndicate base; and
 - iii. The addition of a mezzanine floor at the northern end of the building for a sail loft;

Temporary (up to 10 years)

- f. Syndicate base buildings B to G;
- g. Use of all syndicate base buildings (including ETNZ's use of the VEC);
- h. Wynyard Wharf 'wharf infill' to be removed (no less than 50%);

Dredging

- 1.6 A total of 78.000m³ of material to be dredged over three areas.

Construction

- 1.7 Construction will involve the establishment of staging areas for construction.
- 1.8 The location of the wharf extensions and associated activities (such as dredging) means that it is likely that multiple work sites and construction activities will be run simultaneously.
- 1.9 The construction timeframe for the delivery of the infrastructure is over a period of 18 months. This will involve the use of precast concrete and involve works 6 to 7 days per week, with works required over 24 hours in the day due to site constraints and the works programme. The construction workforce will range from 40 to 100 with peaks of up to 150 workers on site for shorter periods between month 6 and month 16. The disestablishment and 'ramp down' of activities will follow this over approximately a 2 month period.

Coastal Marine Area (CMA) structures and Accessory structures

Hobson wharf extension and wave attenuation

- 1.10 The Hobson Wharf Extension will extend from the northern face of the existing Hobson Wharf north into the Waitematā Harbour. The wharf will have a deck of 72m metres long (north-south) with provision for wharf furniture/fenders on the northern frontage (approximately 2m). The extension will be between 85 to 103 meters in width (east-west) providing an area of approximately 7,000m². This extension will have a finished deck level the same as Hobson wharf Harbour entrance wharf (approx. +5 to 5.5m CD).
- 1.11 Timber fender piles or equivalent will be provided as required around the perimeter of the wharf. Kerbs (deck mounted timber kerbs) will be provided along the berthing faces and ladders will be provided where pontoons and gangways are not currently proposed.
- 1.12 Precast concrete wave attenuation panels are proposed to be installed in the Hobson wharf extension. Wave attenuators will also be required on either side of existing Hobson Wharf. The final design of these panels will be decided through the design stage. As such consent is sought to enable three options. Option 1 retrofits wave panels to the existing wharf structure, option 2 locates the panels on a separate structure alongside the existing wharf (the independent structure would have a width of approximately 1.2m), and the third option utilises floating attenuators, akin to a floating pontoon (these would be located in the waterspace to the east and west of the wharf). All three options maintain an open section immediately below the deck, above mean sea level.

Wynyard Wharf infill

- 1.13 The Wynyard Wharf infill will involve both temporary and permanent wharf structures, filling the approximately 18 metre gap between Wynyard Wharf and Brigham Street, over a length of approximately 250 metres. The new wharf deck will be at the same

level as the existing Wynyard Wharf and Brigham Street (varying from approx. +5.0m CD to +5.3m CD).

- 1.14 Additionally, repairs and strengthening (such as installation of additional piles, deck / beam thickening to the existing Wynyard Wharf) are likely to be required at specific locations to accommodate the increased loads, and are therefore proposed as part of this application.

Breakwaters

- 1.15 Four reinforced concrete piled and decked breakwaters are proposed to ensure sheltered berthing conditions for the race boats, support craft and super yachts. The breakwaters will be constructed of piles with concrete decks. Pile diameters expected to be between 600-1200mm spaced on a grid at less than 7.5m. This is to ensure the structures are designed to withstand wave forces and ship berthing loads. The four breakwaters (see **Figure 1** below) are located as follows:

- An 81m breakwater east of Wynyard Wharf (Wynyard Wharf east breakwater) to provide tranquil water conditions in the Wynyard Wharf South Waterspace for the race boats;
- 39m and 84m breakwaters northwest of Halsey Wharf (Halsey Wharf west breakwater) to provide tranquil water conditions in the Wynyard Wharf South Waterspace for the race boats and ensure clearance from the Wynyard North berthage area;
- A 35m breakwater east of Hobson Wharf (Hobson Wharf east breakwater) to replace the crane vessel, the Rapaki in this location and assist with managing the wave climate within the Hobson east (Maritime Museum) waterspace;
- A 42m breakwater to the south of Hobson wharf to provide tranquil water conditions in the Outer Viaduct Harbour for the race boats associated with syndicate Base B.



Figure 1: Key components of the proposal

Other CMA Structures (Marine and Port Facilities and Accessory Structures and Services)

- 1.16 Floating pontoons and piles will be utilised to support the berthing of race boats, support craft and superyachts. Pontoons will generally be of concrete, expanded polystyrene and galvanised mild steel. They will be connected to piles (typically steel with a polyethylene sleeve). The pontoons will include gangways, services (power, water and telecom) and other attachments as necessary. Mooring piles, similar to the pontoon piles, will also be provided where necessary. It is anticipated that the design of the floating pontoons will be carried out by specialist suppliers, in accordance with detailed design specifications to ensure structures achieve the required performance standards for the conditions in which they are located.

Waterspace use and occupation of the CMA

Raceboats and Support Craft

- 1.17 Raceboats and Support Craft will be accommodated in the waterspace immediately adjacent to the hardstand areas and syndicate bases. One race boat berth will be provided for each syndicate base using floating pontoons. This includes a 25m pontoon perpendicular to the wharf edge. The berthage requirement advised by ETNZ is 6 or 7 boats per team, comprising 5 support craft (2 weather boats, 2 chase boats and 1 sponsor boat) and 1 or 2 raceboats. In addition, berthage for the junior AC challenge and other support craft including emergency services craft is anticipated to be provided within the basin and outer viaduct area.

Superyachts and J-Class Yachts

- 1.18 Superyacht is a generic term for a large often privately owned vessel of 24m or greater with vessels ranging from 24m to over 100m. The size of the superyacht also determines the number of professional crew aboard. Smaller 30 metre long craft typically have a crew of only 8, whilst vessels over 100 metres can have more than 70 crew. The number of crew gives an indication of the level of service and their expectation for access to shore-side facilities.
- 1.19 A limited number of these vessels will be able to be accommodated within the area in close proximity to the syndicates. Up to 17 Superyachts are anticipated to be accommodated within the area with the exact number being dependent on the size of vessels. Additional superyachts may berth in other existing locations in and around the Auckland area, including the city centre downtown waterfront.
- 1.20 The J-Class Yachts have their heritage in the 100 Guinea Cup which became known as the 'America's Cup' after the Royal Yacht Squadron, which hosted the annual race round the Isle of Wight (in the United Kingdom) allowed an overseas yacht the 'America' to enter for the first time in 1851. The yacht built in a new design, took the lead and held it to win the race. The J-Class yachts have indicated that they will attend AC36 for a regatta preceding the main AC36 event.
- 1.21 Eight J-Class berths are to be provided to the north of Eastern Viaduct within the

Outer Viaduct Harbour. This area has been selected as it provides a sheltered and accessible location for public to view these classic yachts.

SeaLink Ferry and Fishing Industry

- 1.22 Panuku is working with SeaLink in order to find them a suitable home in the vicinity and does not form part of this application. It is only proposed to relocate the Fishing industry during the actual America's Cup events to other suitable locations within Auckland Port area. No new facilities are proposed. Before and after the events, the Fishing Industry will remain in their current locations.

Seaplane

- 1.23 The Auckland Seaplane loading area will be relocated from its current location on Wynyard Wharf to another location within the wider area.

Occupation

- 1.24 The Coastal Marine Area within the area is subject to several existing occupation permits held by Panuku, as well as the Ports of Auckland Limited (POAL) deemed coastal occupation permit (under section 348A of the RMA).
- 1.25 As there are a number of occupation permits in the vicinity of Hobson Wharf, it is proposed to regularise the occupation permit in this area (including new areas of occupation) to align with the proposed wharf extension and adjacent waterspace.

Dredging and materials from bored piles

- 1.26 Dredging is required within the Wynyard Wharf South water space area and the Outer Viaduct Harbour and access channel to achieve the required navigable depth for safe vessel movement. The proposed dredging includes areas/depths that have previously been dredged e.g. Wynyard Wharf South and approaches, as well as capital dredging in the Outer Viaduct Harbour and west of Wynyard Point.
- 1.27 A total of 78,000m³ of material is required to be removed over the three areas including approximately 18,000m³ from Wynyard Wharf South Waterspace, 30,000m³ from the access channel and 30,000m³ from the Outer Viaduct Harbour. Design dredge depths for the Wynyard Point structures are -6.0m CD or deeper, accommodating the proposed -5.5m CD dredge depths plus 0.2m overdredge allowance.

Dredging methodology

- 1.28 Dredging will be undertaken by a backhoe dredger followed by sweeping. The backhoe dredger is mounted on a barge, which is typically 40m in length. Production rates are typically up to 800m³ per 10 hour day followed by sweeping which involves the smoothing of seabed contours by a horizontal bar towed at seabed-level.
- 1.29 The dredging operation is expected to run over approximately a 4-6 month period and may occur over several phases depending on construction methodology and

availability of disposal options. Dredged material will then be transported by barges from the dredged area to the disposal site. Typically barges operate in a relay system, with between 1 and 3 barge movements per day and utilises similar equipment currently used within the wider Port area.

Disposal of dredge material

- 1.30 Consideration has been given to the disposal of dredge material reflecting the conclusions of a multi-stakeholder Disposal Options Advisory Group (DOAG) established to consider options for future disposal of dredged material in the Auckland area. The preferred disposal options identified by the group included the use of dredge material for fill in reclamations, disposal to appropriate landfills (in particular where the material was contaminated) and for dredging that met regulatory guidelines disposal to sea (in depths greater than 100m). The primary method for disposal of dredged material from the port since the early 2000s has been re-use in port reclamation at Fergusson Terminal, however this is now nearing capacity and while other independent disposal options (through reclamation) may become available, this is beyond the scope of this consent application. The preferred disposal of dredged material will therefore be as follows:
- a. Re-use as cement-stabilised fill material in consented reclamations or within the wider proposal area;
 - b. Disposal to the Coastal Resources Ltd offshore disposal area (located outside the 12 mile Territorial Seas limit in water depths of 135-155m); and/or
 - c. Disposal to an approved regional landfill (such as Rosedale on Auckland's North Shore).
- 1.31 No specific consented reclamations have been identified in support of option 1 however if one should become available within the project timeframes then this will be pursued further as a possible disposal location. Option 1 includes the potential use of contaminated dredge material on land as part of the landside works or potentially to be utilised as a component of mudcrete to stabilise the toe of existing wave panels located on Halsey and Hobson Wharves.
- 1.32 If option 2 above is employed, material would be barged to the offshore disposal area, a distance of some 125km. The Coastal Resources Ltd permit holder has confirmed in principle that a dredged volume of 70,000m³ presently could be accommodated at the site with dredging occurring over 12-18 months. Disposal under this option would require that the material meets the standards placed on the disposal permit by the Environmental Protection Agency (EPA). Controls relate to sediment quality and biosecurity.
- 1.33 If the material does not meet the EPA sediment quality and biosecurity conditions it would need to be disposed of to landfill (option 3 above). A land based stockpile area at will be required to allow the material to solidify to a "spadeable" consistency before being loaded into trucks and transported to the landfill.
- 1.34 Based on initial investigations approximately 8,000m³ of the dredge material located

within the Wynyard Wharf South Water space is likely to be contaminated to a degree that would require disposal to land-based facilities, while clean material is potentially suitable for marine disposal.

- 1.35 A dredging management plan will be prepared and implemented for the duration of the capital dredging works. The plan will address the method, quantity and areas of dredging; the chemistry of proposed dredged sediment; outline the required notifications to relevant authorities; and provide for monitoring and recording of disposal options as required.
- 1.36 In addition to dredge material, material from bored pile holes associated with both permanent and temporary piles (~9000m³) will result in materials for disposal. In this case a drilling rig would be used, to excavate marine sediments inside the steel casing and drill into underlying rock. The removed sediment will either be placed in a barge and disposed of, as will be the case for dredged material discussed above, or alternatively, if construction programming identifies a favourable sequencing, pile hole material will be placed temporarily on the seabed in a dredged pocket within the works area and subsequently dredged and disposed of along with other dredged material later in the construction (to land or sea as appropriate).

2.0 TECHNICAL ASSESSMENT OF EFFECTS

Ecological values (Applicant's assessment)

- 2.1 An ecological assessment is provided in a report titled "Assessment of Coastal Environmental Effects Associated with the Development of America's Cup Facilities for the Wynyard Hobson Option", prepared by Golder Associates and dated April 2018 (the "**Golder Report**"). This report has an Appendix A titled "Ecological assessment of marine assemblages of the Halsey Street Wharf and Viaduct Harbour" prepared by NIWA and dated December 2017 (the "**NIWA Report**").

Intertidal and subtidal (pontoon) ecological values mainly related to biofouling

- 2.2 The NIWA Report provides results of surveys on wharf piles and pontoons on biofouling organisms undertaken in November 2017 as below (refer section 2.1.1 of the report):
- a. Two locations: The outer Viaduct Basin/Harbour (9 stations) and wave panels adjacent to the entrance to the Viaduct Basin, and attached to the Western Viaduct Wharf (3 stations); and
 - b. Photographs from the Western reclamation wall: Four photographic transects and sampling undertaken in a single 1m x1m quadrat in the littoral zone (high), mid zone and lower edge of the shore line (see Figure 2-1 in the NIWA Report, reproduced below).

Results

- 2.3 A total of 27 dominant taxa of biofouling organisms were identified from the samples removed from wharf piles, pontoons, walls and wave panels. These include barnacles (*Autrominius modestus*), Pacific oysters (*Magallana (Crassostrea) gigas*), a variety of sponges, ascidians, hydroids, bryozoans and polychaetes such as *Sabella spallanzanii*.
- 2.4 Multivariate analyses were carried out in order to identify the trends in macrofaunal assemblages between locations/substrates and depths. Fouling communities were assessed at 3 depths (0m, 2m and 5m below MHWS). At 0m MHWS, the wall and pontoon sites (in the Outer Viaduct Basin) had the highest abundance (percentage cover), and the pontoons had both highest species richness and diversity. The lowest species richness was recorded underneath the VEC, the old piles under the Maritime Museum, the wall in the Viaduct Basin, and the wave panels.
- 2.5 The report states that wall and pontoon substrates support quite different community assemblages to the other substrates (new piles, old piles, wave panels at the VEC, Maritime Museum and Outer Viaduct locations respectively). The Mediterranean fan worm (*Sabella spallanzanii*) was present on all substrates except the old piles.

Subtidal ecological values



Figure 2-1: Sample locations for intertidal (wharf piles, pontoons, walls and wave panels), and subtidal surveys (sediment cores and video). Sediment stations were located under the Viaduct Event Centre on the Halsey Street Wharf Extension (Stations 1-3), in an area of open water in Freeman's Bay outside the entrance to the Viaduct Harbour (Stations 4-12), and in the Outer Viaduct Basin (Harbour) (Stations 13-15). An additional 30 m sediment transect was located in the corner of North Wharf and Wynyard Wharf. Intertidal Stations were located in the Outer Viaduct Basin (Harbour) on new wharf piles (Station 1-3), in the Viaduct Basin on old wharf piles (Stations 4-6), and in the Viaduct Basin on pontoons and walls (Stations 7-9). Wave panel sites were located on the external (open water side) of the Western Viaduct Wharf (Stations 1-3). Benthic habitat characterisation was located at the corner of North Wharf and Wynyard Wharf (Stations 1-3).

Benthic ecology values

- 2.6 The NIWA Report provides information on infauna and epifauna collected from

sediment cores and video transects at four areas in November 2017 (Figure 2-1 above; source NIWA Report). The survey locations comprise:

- The Viaduct Harbour (3 stations)
- Beneath the Viaduct Event Centre (3 stations)
- The area north of Western Viaduct Wharf (9 stations)
- The north Wharf/Wynyard Wharf corner (one 30m video transect).

2.7 The NIWA results are summarised as below:

- a. A total of 33 macrobenthic invertebrates (taxa) were identified from the sediment cores (excluding stations 4, 9 & 10).
- b. Polychaetes were the dominant taxa across all stations. On average, they comprised ~76% of the total number of individuals collected at each station.
- c. Bivalves represented ~12%, oligochaetes 6%, with other small crustaceans (amphipods, ostracods and isopods and crabs) making up ~4% collectively. Nemerteans, a single ascidian and a barnacle, comprised less than 2%.
- d. The most abundant of the polychaetes was the *Heteromastus filiformis*.
- e. The non-indigenous polychaete, *Leonnates stephensoni* (tube dwelling spionid) was identified from open water areas adjacent to the entrance to the Viaduct Basin. This species was first described in New Zealand in November 2017, from the Henderson Creek intertidal flat. These records are the first for the Viaduct/Freemans Bay area.
- f. A single specimen of the non-indigenous polychaete (*Pseudopolydora paucibranchiata*) was also recorded. Although not identified from sediment cores, the Mediterranean fan worm *Sabella spallanzanii* was identified in images from North Wharf/Wynyard Wharf.
- g. There was no significant difference in the mean number of individuals or the species richness at the VEC, open water, or Viaduct Basin sites (no sediment cores were taken from the North Wharf site). However, the diversity of species between the three locations was significantly greater at the open water site. There was no significant difference in species diversity between the VEC or Viaduct Basin sites.
- h. Image analysis from sediment stations indicated that there were significantly more burrows present in the open water sites (sites adjacent to the Viaduct Basin entrance, the Viaduct Basin and at the North Wharf/Wynyard Wharf) compared to underneath the VEC.
- i. There were no significant differences in the numbers of epibenthic fauna, opal fish (*Hemerocoetes monoptygius*), starfish (*Coscinasterias muricata*), or

Mediterranean fan worm between the sites due to the low numbers recorded at the different stations.

Other fauna

Seabirds

- 2.8 Section 3.6 of the Golder Report provides a list of coastal birds that utilise the CMA of the Waitemata Harbour (Larcombe, 1973) and Freemans Bay (Bioreserches, 1989) and notes that the birds using the project area were typically the same species recorded in these studies. This list has 5 coastal bird species (out of 8 species) that are classified as “at risk” in the New Zealand Threat Classification system.
- 2.9 The Golder Report states (at 3.6.4) that, while overall a number of bird species typical of the lower Waitemata Harbour use the Freemans Bay area, there are no natural or man-made roost sites and no known nest sites.
- 2.10 The report notes (at 3.6.3) that a pair of NZ dotterel were identified as nesting on land south of Silo Park but the site is not anticipated to be involved in any America’s Cup activities identified in this application.

Marine mammals

- 2.11 The Golder Report notes (at section 3.8) that more than 22 species of whales and dolphins have been recorded in the Hauraki Gulf, while only a smaller number of these species find their way from the Gulf into the Waitemata Harbour. Leopard seals are uncommon although in 2017 two have been visiting Westhaven marina.

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Ecological effects

- 2.12 The subject site is in a highly modified coastal environment, surrounded by historical reclamation, structures related to port and other marine related activities including maritime events, and berthage for commercial and recreational activities. The surrounding area is been subject to ongoing use and development related to port and marine related activities such as disturbance from vessel movements, and reconfiguration and dredging.
- 2.13 The key potential adverse effects on marine ecological values from the AC36 project include:
- a. Permanent and temporary changes and loss of habitats resulting from the proposal;
 - b. Permanent and temporary new habitats from the proposed structures;
 - c. Construction related effects (habitat disturbance, noise, change in the level of total suspended solids (TSS) and other contaminants);

- d. Effects from dredging;
- e. Operational effects (biosecurity, discharge of stormwater, lighting and shading effects); and
- f. Indirect effects (birds, fish and other fauna).

Changes and loss of habitats

2.14 The majority of the CMA structures proposed for AC36 infrastructure, except the infilling proposed for the Wynyard Wharf Extension, are going to cover the subtidal area. The total area that would be covered by these structures includes:

- a. 7000m² for the extension to Hobson Wharf;
- b. 350m² for the breakwater structure off Hobson Wharf (Hobson East breakwater);
- c. 420 m² for the breakwater structure off Hobson Wharf;
- d. Wave panels adjacent and parallel to Hobson Wharf to minimise the transmission of ferry wakes into the Outer Viaduct Harbour;
- e. 1600 m² for the extension to Halsey Wharf at the western end to provide a breakwater structure;
- f. Halsey West breakwater for wave protection into the Wynyard Wharf South Waterspace. The north-west tip of this breakwater provides a required clearance of 100m to Wynyard Wharf (north) and for an adequate navigation entrance width of 72m to the Wynyard breakwater;
- g. 4000m² for the wharf infill structure (about) between Wynyard Wharf and Brigham Street to facilitate vessel access into Bases C to G on Wynyard Point; and
- h. 810m² for the breakwater structure off Wynyard Wharf (Wynyard East breakwater).

2.15 In summary, the proposal involves approximately:

- 2,000m² of temporary wharf structure and 9,000m² of permanent wharf structure including wave panels;
- 3,200m² of permanent piled, decked breakwater including wave panels;
- 600m² of pile footprint at the seabed;
- 5,000m² of floating pontoons.

2.16 While the above structures would cover the subtidal area and change the habitat by reducing the availability of light to the inhabitants in the area and providing hard

substrate for new species (encrusting/biofouling organisms), the actual benthic habitat loss is proportional to the number of piles proposed to support the structures. The estimated numbers of piles for these structures in the Application reports are (Physical Infrastructure Report, Table 3) :

- a. 150 piles for Hobson Wharf extension (200m²);
- b. 40 permanent piles for Wynyard Wharf infill & 40 temporary piles (200m²);
- c. 120 piles for breakwaters (120m²);
- d. 150 piles for pontoons (50m²).

2.17 The benthic ecological information provided in the NIWA Report (at section 3.2.2) indicates that the application area has species that are typical to the soft sediment habitats in the Waitemata Harbour as well as species recorded in the impacted/polluted areas in the Harbour. This is evident from the high number of polychaetes, *Heteromastus filiformis* identified in NIWA's study. *H. filiformis* has been used as a potential indicator for organic pollution as they are known to live and feed on organic particles within anoxic deposits (Kronvang, B et al, 2007).

2.18 At least two non-indigenous polychaetes (*Leonnates stephensoni* & *Pseudopolydora paucibranchiata*) were identified in the sediment samples collected within the subject site by NIWA. *L. stephensoni* was found at 3 stations in the open water adjacent to the entrance to the Viaduct Basin. The NIWA Report notes that this was the second record in the Waitemata Harbour (first described in New Zealand from intertidal flat in Henderson Creek in November 2017). This finding suggests that this species could be spread in other areas of the Waitemata Harbour. In addition, whilst the first record of this species was in the intertidal area of Henderson Creek, this species was found in the subtidal area adjacent to Viaduct Basin. This suggests that this species has the potential for a wide tidal distribution.

2.19 A single specimen of non-indigenous polychaete, *P. paucibranchiata* was recorded at a station (2) under the VEC in NIWA's study. The NIWA Report notes that this species was first recorded in Auckland in 2005 during baseline port surveys (Inglis et al, 2010). Whilst the finding of this species confirms the presence of this species in the area, only one specimen in the sample collected during NIWA's study suggests that this species may not be abundant in the area. However, the number of samples collected during the survey is very limited to make such a conclusion.

2.20 It is noted that other non-indigenous bivalve species (*Theora lubrica*) and gastropod species (*Nassarius (Plicarcularia) burchardi*) identified in the subtidal samples are well established in Auckland Region. However, the fanworm, *Sabella spallanzanii*, identified in NIWA's study has implications in relation to biosecurity as this species has been registered as an unwanted organism by MPI.

2.21 The finding of the above non-indigenous taxa within the subject area clearly demonstrates that the subject area can act as a hotspot or as corridors for the establishment of non-indigenous species.

2.22 NIWA's study found (in section 4) that the benthic assemblages located beneath the VEC differed significantly from the assemblages recorded within the Outer Viaduct Basin or immediately outside it. This study also found a significant difference in the number of invertebrate burrows between the open water sites compared to underneath the VEC. The report notes that the VEC site is permanently shaded and light levels beneath the water and at the seabed are exceptionally low. Water currents and wave action are reduced due to externally facing wave attenuation panels.

2.23 Summary of ecological effects:

- a. In relation to changes in the habitat, the proposed structures would permanently shade a subtidal area of less than ~1ha which would in turn change the habitat from an open water nature to a shaded nature mainly by reducing illumination and altering water movement and sedimentation rates.
- b. The proposed wharf extensions are additions to existing wharves. As recorded in the NIWA study, the benthic assemblages in the area of the new wharf will likely to change from the more diverse open water assemblages to narrower under wharf assemblages. However, this effect is not considered significant as the site has already been impacted by a reduction in light and increase in sedimentation rate as a result of existing development at the site. In addition, the benthic communities in the existing environment are likely to be tolerant to these changes and to be resilient.
- c. With respect to habitat loss, an area of subtidal benthic habitat will be lost by the placement of permanent piles and in a lesser manner for temporary piles. Whilst the soft sediment habitat is lost for the piles, the proposed structures would provide hard substrate for encrusting organisms. As with other similar structures within the Viaduct Harbour, these structures are likely to be colonised by non-indigenous species. The Viaduct Harbour, due to its port activities, is an area known for new exotic species to New Zealand. Whilst the proposed structures themselves will not directly act to increase this risk, they would potentially offer habitat for such species. Fouling organisms which are likely to colonise these proposed structures would change the seabed (substrate and community composition) when they get dislodged or die. This may change the nature of the seabed over time but the change is likely to be minor.
- d. There may be differences in the encrusting species which are likely to be colonised on these structures depending on the coastal processes and design and material of the structures. Encrusting assemblages on breakwater might be different from the assemblages underneath the piles of wharf or pontoon. However, there are lots of breakwaters already existing in the area, hence the encrusting species that would likely to colonise on proposed breakwaters would be the same or similar. As noted above, the proposed structures would increase the area of hard substrate for encrusting species. This effect is not new to the existing environment as there are many similar structures within

the subject area. Accordingly, the change in the habitat by the proposed overhanging structures such as pontoons, wharves and decks is considered to be minor, and not significant.

- e. Plants are sensitive to light as it is essential for their photosynthesis. It is noted that NIWA's study did not identify any flora in the subtidal area. Therefore, the effects on flora from the proposal are again considered to be minor, and not significant.

Intertidal ecological effects

- f. With respect to the proposed structures, only the southern half of the Wynyard Wharf Extension (infill) would be in the intertidal zone. This covers an area of approximately 4000m² (surface/wharf area; 50% temporary). The habitat loss in the intertidal area is ~ 200m² which includes temporary and permanent habitat loss for the piles (80 piles).
- g. NIWA's study identified a total of 27 taxa of biofouling organisms from the samples removed from existing wharf, piles, pontoons, walls and wave panels (refer to section 3.1.1). Therefore, it is anticipated that all or some biofouling species identified in this study would colonise on the proposed structures depending on the composition of the hard substrate, surface area available, size and recruitment of species. In addition, as identified in NIWA's study, the biofouling assemblages on the pontoons may compositionally distinct from those on the piles and wave panels. Pontoons generally have an algae assemblage in the upper-water which gets enough sunlight. However, the effects on intertidal habitat are considered minor as the habitat loss or changes from the proposal are small scale.

Effects on avifauna

- 2.24 While I agree with the assessment at section 3.6 of the Golder Report that there are no significant breeding or nesting colonies within the project footprint, in the Wynyard Basin area in particular, several coastal bird species feed in the harbour and roost on structures around the harbour edge. As far as these birds are concerned, the proposed works will not alter the precinct greatly from what already exists. Therefore, the effects on avifauna will be no more than minor

Fish species and marine mammals

- 2.25 In addition to the species listed in the applicant's assessment at sections 3.7 (concerning fisheries) and 3.8 (concerning marine mammals), it is known that New Zealand fur seals are occasional visitors in the Waitemata Harbour.
- 2.26 I consider that the potential effects on fish species and marine mammals would be minor.

Sediment and Water Quality (Applicant's assessment)

2.27 The Golder Report refers to sediment sampling undertaken in the following areas during November 2017 to examine the sediment quality of the project area (Figure 12, Golder Report).

- Halsey Wharf/ Freemans Bay (9 surface (HWS1-9); 6 composite (HWC 4-9) samples);
- Outer Viaduct Harbour (3 surface (HWS 10-12); 3 composite (HWC 10-12) samples);
- North Wharf (3 composite NW 1-3) samples;
- Wynyard Wharf (3 composite WW 1-3) samples.

2.28 Surface sediment samples were collected using 150mm deep x 130mm diameter cores while cores were collected using 1m long x 60mm diameter Perspex push tubes. The results provided in the Golder Report are summarised as below:

Total Organic Carbon (TOC)

- a. No cores contained marked redox discontinuities or textural layering (section 4.5.1 of the Golder Report). TOC concentrations in the sediment from the open water surface and core samples were relatively similar and related to the percentage of mud (section 4.5.2 of the Golder Report). The sediments do not contain significant organic carbon (1.71 % dry weight at North Wharf).

Trace elements

- b. Concentrations of arsenic, chromium and nickel in all samples collected were lower than the ANZECC (2000) sediment quality guideline values (**SQGV**).
- c. Cadmium concentrations were similar between surface and core samples in the outer Viaduct Basin and within Freemans Bay with all concentrations <0.10 mg/kg. Higher concentrations were measured in 4 out of 6 samples collected out from North Wharf (0.139 to 0.29 mg/kg). All concentrations were lower than the ANZECC (2000) SQGV.
- d. Cu, Pb and Zn concentrations in samples collected north of Halsey wharf and in the Outer Viaduct Harbour were consistent across sites and below the ANZECC (2000) SQGV. Concentrations measured in all North Wharf sediment samples were higher than those measured in the Wynyard samples located further out from North Wharf.
- e. Cu concentrations in all samples were lower than the SQGV, with the exception of one sample collected in the core sample from North Wharf. Pb concentrations were lower than SQGV in all sites except one site in the North Wharf area. In the North Wharf samples, the average was over the SQGV and one sample was above the SQG-High. Zn concentrations in the North wharf

samples exceeded the SQG-low but not the SQG-High. All other concentrations were below the SQGV.

- f. Zn concentrations in the North samples exceeded the SQG-low but not the SQG-high. All other Zn concentrations were below the SQGV.
- g. All core sediment samples had higher mercury concentrations with all samples exceeding the SQG-low but not the SQG-High limits.

Petroleum hydrocarbons (PH) & Polyaromatic hydrocarbons (PAH)

- h. No Total PH were detected in the surface sediment samples from the Wynyard Basin or outer Viaduct Basin. TPH was detected in the samples taken at North Wharf. North Wharf samples had concentrations within the range of 133-290 mg/kg dry weight and Wynyard Wharf South Waterspace had concentrations within the range of 110-320 mg/kg dry weight. (SQG-Low value is 130mg/kg).
- i. A total of 18 individual parent PAHs (congeners) and two methylated PAHs were included in the analysis of sediments collected from the samples. The ratio of key PAH concentrations showed that the PAHs are likely of pyrogenic and mixed pyrogenic/petrogenic sources.
- j. A range of persistent organochlorine pesticide (OCP) compounds were measured in sediments. DDT concentrations were <0.006mg/kg in surface and core sediment samples from the Outer Viaduct Harbour, Wynyard Basin, and North Wharf cores. Low concentrations of 4 isomers of DDD (Dichlorodipenyldichloroethane), DDE (Dichloro-2,2-bis(p-chlorophenyl) ethylene and DDT were detected in the Outer Viaduct Harbour in surface samples (up to 0.0022mg/kg). Dieldrin and chlordane were not detected.
- k. In surface and core samples from both Freemans Bay and Outer Viaduct Harbour, Tributyltin (TBT) was below detection limits in seven out of nine samples while the other two samples were below the SQGV. In the six core samples from the Wynyard Wharf South Waterspace (adjacent to North Wharf and the west of Halsey Wharf), TBT concentrations were higher compared to Freemans Bay. In the samples from west of Halsey Wharf, only one sample was above the SQGV. In the North Wharf samples, all three samples contained TBT concentration above the SQG-high.
- l. At North Wharf, TBT comprised the largest part of the organo-tin compounds. The amount of present varied but ranged from 7% to 55% of organo-tin compounds the combined DBT and TBT. Given that the North Wharf and Wynyard Wharf samples are cores, it is likely that the cores contain a range of DBT and TBT concentrations depending upon the time of the addition and sediment depth.
- m. Co-biocides were not detected in any of the surface samples tested.

Water quality

2.29 Water quality information is provided from 2 samples collected within the inner Viaduct Basin and two samples within the outer Viaduct Basin during November and December 2017. Water samples were collected for measurement of turbidity, TSS, major nutrients (nitrogen and phosphorous), chlorophyll a and dissolved trace element concentrations. The results are summarised as below:

- a. TSS ranged from <3 to 36 g/m³ in the inner Viaduct Basin and from 8 to 36 g/m³ in the Outer Viaduct Basin.
- b. Overall, based on the short duration survey, the water quality in the Viaduct Harbour is of similar quality and reflects the quality of water entering the Viaduct Harbour on the flood tide from the Waitemata Harbour.

Nutrients

- c. Total nitrogen (**TN**), comprised of both particulate and dissolved fractions, ranged from 0.152-0.430 g/m³ in the Inner Viaduct Harbour and from 0.156-0.230 g/m³ in Freemans Bay. TN in the viaduct/Wynyard Basin was higher than that reported for the Chelsea site during the 2015 monitoring period (range 0.005-0.150 g/m³).
- d. For the dissolved fractions of nitrogen, ammoniacal-N concentrations ranged from 0.009-0.038 g/m³ in the Inner Viaduct Harbour and from 0.010-0.021 g/m³ in the Outer Viaduct Harbour. This was similar to the range reported for the Chelsea site during the 2015. Nitrate concentrations ranged from 0.0043-0.0186 g/m³ in the Inner Viaduct Harbour, while nitrite ranged from <0.001-0.0015 g/m³ in the inner Viaduct Harbour but was below detection limits (<0.001) in the Outer Viaduct Harbour. This was similar to the range reported for the Chelsea site during the 2015 monitoring period (0.001-0.043g/m³).
- e. Dissolved reactive phosphorous (**DRP**) ranged from 0.006-0.017 g/m³ in the Inner Viaduct Harbour and from 0.012-0.018g/m³ in the outer Viaduct Harbour over the five sampling locations. DRP concentrations in the Viaduct were within the range reported for the Chelsea site during the 2015 monitoring (range 0.007-0.020 g/m³).
- f. Chlorophyll a concentration ranged from < 0.001-0.003 g/m³ in the inner and outer Viaduct Basin and from 0.001-0.002 g/m³ in the Inner and Outer Viaduct Harbour. This was similar to the concentration reported for the Chelsea site during the 2015 monitoring period (ranged <0.001-0.002 g/m³).
- g. Dissolved Cu, Pb and Zn were measured during November and December 2017. Dissolved Cu, ranged from 0.004-0.008 g/m³ in the Inner Viaduct Harbour and from <0.001-0.02 g/m³ in the Outer Viaduct Harbour. Dissolved Zn, ranged from 0.004-0.008 g/m³ in the Inner Viaduct Harbour and from <0.004-0.011 g/m³ in Freemans Bay. Pb was below the laboratory detection

limit. Overall, trace element concentrations (Cu, Zn and Pb) were below the Guideline values.

- h. Overall, the water quality in both inner/outer Viaduct Basin and Wynyard Basin was similar to that reported for the Auckland Council's Chelsea monitoring site which is considered as "excellent" quality.

Elutriate Testing at key areas

2.30 The Golder Report notes, at section 6.6.4.1, that during sediment disturbance (example: dredging or dredging material disposal), trace elements, nutrients and any other constituent in interstitial water or adsorbed to sediment may be released to the water column. Therefore, elutriate testing was carried out on a sub-set of sediment samples from each of the key dredging areas. The elutriate was analysed in this study primarily for ammoniacal nitrogen, trace elements and TBT based on past elutriate testing of port and marina sediments in the Auckland Region. The results are summarised as below:

- a. Ammoniacal nitrogen (section 6.6.4.2 of the report)
 - i. Ammoniacal nitrogen is the main form of dissolved inorganic nitrogen released during the sediment disturbance. Ammoniacal nitrogen concentration ranged from 1.66mg/m³ (WW-2) to 8.8mg/m³ (WW-1; Table 26; The Golder Report). The report states that the maximum concentration of 8.8 mg/m³ would require less than ten-fold dilution to bring the concentration below the ANZECC (2000) 95% protection trigger value (0.91g/m³), and that this is likely to occur very close to the point of disturbance.
- b. Trace elements (section 6.6.4.3 of the report)
 - i. Concentrations of cadmium, chromium, lead, mercury, nickel and zinc were below the ANZECC (2000) 95% protection trigger value.
 - ii. Arsenic concentrations ranged from <4.2 to 24mg/m³. Concentrations are similar to those measured previously in sediment from Half Moon Bay Marina (6.3-9.8mg/m³) and Hobsonville Point (4.2-10.9mg/m³).
 - iii. Although Cu was measured in elevated concentrations in the sediment, it was not detected in elutriate analysis from North Wharf.
 - iv. PAHs concentrations in the elutriate were low. Most of them were below the detection limits. There are no ANZECC (2000) trigger values for individual PAH compounds.
 - v. Overall, elutriate testing of Freemans Bay has shown that when disturbed or dredged, the sediment will release some constituents to seawater. Although elevated concentrations of TBT, lead and mercury were identified in North Wharf sediment samples, concentrations were non-detectable in elutriate. A small dilution of 10 times at the point of

disturbance would be required to dilute the concentration below the trigger value.

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Sediment and water quality effects (mainly from dredging and construction)

2.31 Sediment and water quality effects arise mainly from the proposed dredging and construction works. The Coastal processes and Dredging Technical Report notes (at section 5.1) that proposed dredging areas include areas/depths that have previously been dredged such as Wynyard Wharf South and approaches, as well as capital dredging in the Outer Viaduct Harbour and west of Wynyard Point. **Figure 2** provides an estimated depth of dredging based on POAL survey ~ maximum depth of 3.8m in the entrance channel (dredging to -5.7m), ~ maximum depth of 3.2m (dredging to -5.7m) in the Wynyard Basin and ~ maximum depth of 2.0m (dredging to -5.7m) in the Outer Viaduct Harbour area (refer to Document DS5.1, Engineering Concept Drawings, Civil 3233847-CA-4108; **Figure 2** below).

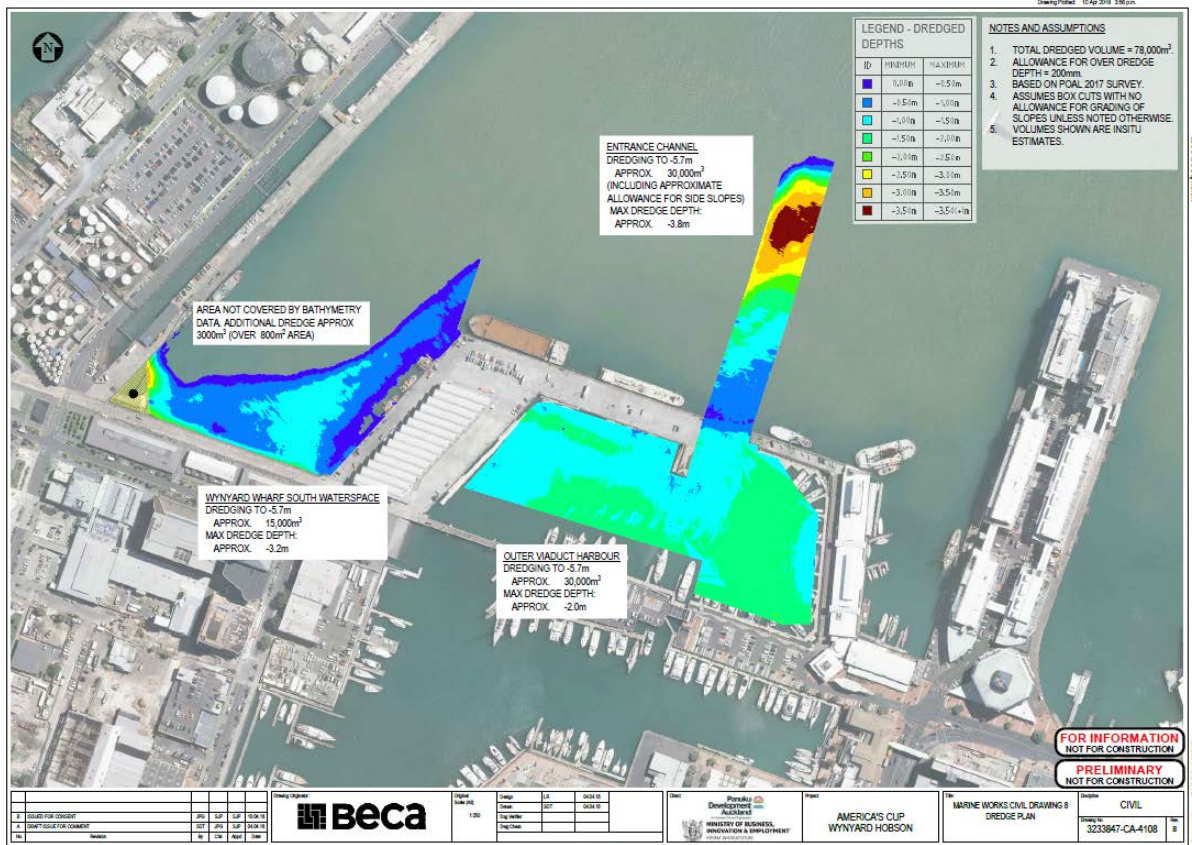


Figure 2: Proposed dredging areas and dredge depth

2.32 This information clearly indicates that dredging, at least in some areas would be up to 3.8m and has the potential to expose the anoxic layer. Whilst the sediment cores collected in Golder Report did not identify any marked differences in the redox potential discontinuities, the length of cores (1m) used in this study might not be deep enough for this site to identify the difference in the redox potential or the thickness of

the anoxic layer beneath the seabed.

- 2.33 Sediment deposition in a water body does not occur uniformly but is dictated by coastal processes. Generally, sediment quality guidelines require the distribution and depth of sampling undertaken to reflect the area and volume to be dredged and the expected variability in the horizontal and vertical distribution of contaminants. Core samples are recommended where the depth of dredging and expected vertical distribution of contaminants suggest that this is warranted (OSPAR, 2014). Golder Associates collected surficial as well as core/composite sediment samples for the sediment quality analysis. The core samples were collected using a 1m deep corer. While the sediment sampling depth to 1m was likely to miss the potential variability in the vertical distribution of contaminants in the proposed dredging area, the sediment sampling covered the spatial extent of the proposed dredging areas. In addition to the information on sediment and water quality provided in the Golder Report, if consent is granted, the applicant is proposing to provide information on bulk chemistry of proposed dredgings via the dredging management plan prior to dredging. Accordingly, it is considered that the information provided on sediment characteristics is adequate for the assessment of effects from dredging and construction.
- 2.34 Generally, the concentration of contaminants is much greater in the finer sediment fractions (<63µm). Simpson *et al*, 2013, recommends that the binding of contaminants by the fine sediment fraction be considered when more detailed investigations of contaminant bioavailability are required for site-specific assessments. The Golder Report notes that the surface sediments from the Freemans Bay contained an average of 76% mud, surface sediment from both outside and inside the Outer Viaduct Harbour had higher mud percentage than cores (section 4.4.3, Table 10, Golder Report). These grain size results suggest that the sediment in the proposed dredging areas have high fraction of fine sediment which can be suspended and potentially dispersed during dredging and ingested by organisms.
- 2.35 Sediments within and immediately outside the project footprint contained a range of contaminants such as trace metals, polycyclic aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPHs), organochlorine pesticides (OCPs), and organo-tin compounds (OTC) such as tributyltin (TBT) and dibutyltin (DBT).
- 2.36 North Wharf sediment samples had relatively more contaminants exceeding the SQG limits compared to other areas sampled within the project footprint and immediately outside the footprint (Mercury, Zn, TPH and Pb). However, DDT (including DDD and DDE) and TBT were present in all samples. High levels of TBT and DBT were found in the North Wharf sediment samples. It is agreed with the applicant that based on the sediment quality data, sediment dredged from Outer Viaduct Basin and the Inner Viaduct Basin entrance channel is likely to be suitable for open water disposal to a permitted offshore marine disposal site (section 6.7, Table 28, Golder Report). But the sediment in the area alongside North Wharf within the Wynyard Basin (Wynyard Wharf South Waterspace) may not be suitable for open water disposal as the site had elevated concentrations of lead, mercury, zinc and TBT. However, this is a matter for the EPA who grants dumping permit offshore for the disposal of dredged sediment.

- 2.37 The following points are noted in relation to the contaminants recorded within and in the vicinity of the project footprint and effects related to dredging and construction:
- a. The presence of DDD and DDE which are the principal breakdown products of parent DDT suggests that the source is a historical source. It is noted that a similar concentration of DDT (0.0010-0.0019 mg/Kg) was recorded in Port of Auckland during the Ports of Auckland survey in 1990 (Roberts & Forest, 1999). DDT is a persistent organochlorine insecticide with a half-life of 2–15 years and it has been banned for use in New Zealand since 1989.
 - b. A variety of harmful substances recorded in the project area such as heavy metals, PAHs, DDT and TBT can be locked into the seabed sediment and can be of historic origin and/or from distant sources. The effects of these contaminants on benthic macrofauna can be reflected by macrofaunal community structure (Dauer et al, 1993), or sub-lethal indicators such as TBT induced imposex (e.g. female sea snails (marine gastropod molluscs) to develop male sex organs) (Stewart et al, 1992).
 - c. The above findings clearly demonstrate that the proposed dredging area contains contaminants of concern (DDT and TBT in particular) which are known to cause direct toxic effects to the marine environment. Sensitive species, especially benthic fauna, may be impaired by sublethal effects and this ecological alteration may lead to responses in tolerant species. Contaminant induced changes in nutrient and oxygen dynamics may in turn alter ecosystem function. While the direct effects of toxicants usually reduce organism abundance, indirect effects may lead to increased or decreased abundance (John et al, 2003).
 - d. One of the most popular biocides used in antifouling paint was tributyltin (TBT), which causes lethal effect to many organisms. TBT was found to be severely contaminating many estuaries and bays, causing deformities and the disappearance of some organisms. For instance, a decline in the abundance of oysters and gastropods were correlated with bioavailability of TBT in the Hastings River, NSW, Australia (Roach & Wilson, 2009). Consequently, the application of TBT to boats less than 25 m long was banned in the late 1980s, and it was completely banned in 2003 when the European Union introduced controls.
 - e. Many contaminants (e.g. DDT, PCBs) bio-accumulate in marine organisms, and can be biomagnified along the food chain and cause a potential threat to human health (Fisher, 1995).
 - f. Chemical contaminants are bound to and move with fine sediments. Therefore, dredging affects the temporal and spatial extent of impacts. Dredging can release the contaminants into the water column, making them available to be taken up by animals and plants, with the potential to cause toxicity to them. If the likelihood of sediments getting settled within the vicinity of the dredged area, then the contaminants in the dredged sediments are likely to have little effect on the disturbed communities particularly in areas

where dredging is a well-established activity. This would be the case where the seabed areas regularly undergo some level of disturbances from activities such as ferries movement and maintenance dredging. However, in some cases sediments are distributed more widely within the marine environment and may settle over adjacent subtidal or intertidal habitats, possibly some distance from the dredging area.

- g. TSS information provided from 4 water samples collected within the project footprint in the water quality section states that the TSS range was 3-36 g/m³ in the Inner Viaduct Harbour and 8-36g/m³ in the Outer Viaduct Harbour. However, Tables 20 and 21 and Section 5.3 of the Golder Report provide the TSS concentration from water samples and historical information indicates a lower range for the TSS. Further, the Coastal Processes and Dredging Report recommends (at section 5.4.2c) 25g/m³ as the trigger level for TSS in relation to sediment disturbance and suspension during dredging. While there is potential for greater spatial and temporal variability in the TSS in the water column, TSS concentration needs to be monitored pre-dredging to measure the ambient TSS in the water column to confirm this trigger level (25g/m³) is appropriate as recommended for the proposed dredging sites. The Coastal Processes and Dredging Report states that based on the recent dredging plume studies for the port maintenance dredging, the water quality effects would be localised and temporary (will be less than 1% of the total sediment flux per tide), with maximum increase of 3-5g/m³ within 200m of the dredger. Whilst the benthic fauna identified at the site have the tendency to re-colonise, the rate of recovery and re-colonisation is relatively slow as the site may be affected by regular disturbance and removal from the annual maintenance dredging, or vessel movements.
- h. The proposed maintenance and capital dredging would result in direct removal of epifauna and infauna as well as the habitat to the dredge depth range of ~2.0-3.8 m. In each dredging campaign, sediment will be removed from defined areas. Although the proposal aims to remove sediment from defined area, sediment will be lost and coastal processes and sediment texture of the area will influence the redistribution and deposition of the sediment in the down-current area. Whilst the soft sediment benthic invertebrates have the tendency to recolonise within relatively short periods, the recovery from dredging would vary depending on the substrata, species inhabiting the area, settlement via recruitment processes and post-settlement survival of larval and pre-adult stages. There may be difference in the benthic community composition depending on the change in the substrate and physical environment post dredging.
- i. The magnitude of effects from capital dredging is likely to be higher than the effects from maintenance dredging (Wynyard Wharf South and approaches) as the proposed capital dredging is likely to remove of a large amount of virgin material from the seabed whereas maintenance dredging would remove the silt and sediment that has been deposited over the course. Therefore, the loss of habitat and inhabitants from capital dredging is likely to be greater than the

disturbance from maintenance dredging. The epifauna and infauna in the area proposed for maintenance dredging are likely to be tolerant to some level of disturbance from dredging and unlikely to have sensitive benthic fauna.

- j. While the total volume of proposed dredging (78,000m³) is possibly expected to occur in defined areas over 4-6 months, the proposed depth range (>2m) is considered relatively deep compared with most of other dredging activities occurring in the Waitemata Harbour and other areas in Auckland. Whilst the Golder Report did not identify any difference in the redox potential discontinuity layer in the 1m core samples, proposed dredging may expose the anoxic sediment layer with potential persistent contaminants such as DDT and TBT. While this layer is unlikely to have any fauna, the recolonisation of soft sediment habitats is generally facilitated by bioturbator species such as crabs and shrimps, which have the ability to burrow deeper and oxygenate the sediment to allow subsequent successional changes. While the macrofauna data collected for the Golder Report indicates that the area was dominated by worms (polychaetes and oligochaetes) rather than other taxa in the subtidal samples, it is considered that the removal of the anoxic and/or contaminated sediment would be beneficial for the recolonisation of some sensitive benthic fauna, especially for the area where persistent contaminants such as DDT and TBT have been detected in the sediment samples. In addition, the removal of contaminated surficial sediment during proposed dredging in some areas in particular, is likely to minimise the effects from disturbance on long term water quality from sediment dispersion and transportation to other non-contaminated areas.
- k. It is noted that Golder Associates have carried out elutriate testing on a subset of sediment samples from the key areas sampled for sediment quality analysis. Tables 28 and 30 of the Golder Report indicate that elutriate ammonical nitrogen in all samples, and Zn in one sample (NW-1) exceeded the ANZECC (2000) 95% value. The report notes that while the PAH concentrations in the elutriate were low, there are no ANZECC (2000) values for individual PAH compounds. In addition, while the sediment samples had TBT concentrations above the SQG-high in samples especially in North wharf samples, TBT was not detected in the elutriate samples. I agree with the statement in the Golder Report (at section 6.6.4.5) that although TBT was not detected in any elutriate samples, the laboratory detection limit was higher than the trigger value. Therefore, there is a potential that these contaminants of concern are present in low levels in the sediment and may be released into the water column during dredging. However, I also agree with the statement in the Golder Report that at least 10 times dilution at the point of dredging would be required to dilute the concentration below the trigger value if the contaminants are in the dissolvable condition. This level of dilution is available at the site.
- l. While there is potential for acute (short term; 2-10 days) and chronic (long term) toxicity from the contaminants of concern (e.g. DDT, TBT), the Golder Report states that the acute effects have not been considered in the

assessment. It is considered that the proposed dredging methodology using a backhoe dredger would minimise the sediment mobilisation and dispersion during dredging. In addition, the results from the proposed condition requiring a dredging management plan and conditions related to water quality monitoring would provide opportunities to assess these effects further pre, during and post dredging.

- m. The Coastal Processes and Dredging Report estimated that the total release of dredged sediment (78,000m³) into the water column would be approximately 2100 tonnes (at section 5.4.2a). This sediment release would be less than 1% of the total quantity of sediment flux in the harbour over the dredging period of 6 months. While there is a potential increase in the sediment flux during dredging, I agree with the conclusion in the Coastal Process and Dredging Report at 5.4.2d that the water quality effects from dredging would be low.
- n. Construction effects are mainly from the construction of base infrastructure. This involve piles driving/drilling/vibrating, disturbance from using excavators, mobile cranes, piling and drilling rigs, and barge. The Physical Infrastructure Report describes the construction methodology for the project. This report states at section 4 that the methodology is anticipated to be similar to the Viaduct Harbour works completed in 2000 and the duration of construction is expected to be 13-14 months. The construction methodology notes that approximately 310 permanent piles and 190 temporary piles are required to secure the proposed structures (Table 3; Physical Infrastructure Report). The report notes that temporary work platforms and associated support piles are installed for access, and the piles will likely be vibrated into the ground and finished by driving to a set. This will minimise disturbance and enables the piles to be removed from the site on completion of the works.
- o. There may be sediment disturbance from piles driving/piling. The wharf construction methodology provided indicates that there may be excavation of sediments inside the steel casing and drilling into underlying competent sandstone in which the piles will be founded. If the piles are drilled, it will stay inside the casing. The Physical Infrastructure Report states that the removed sediment will be placed in a barge and disposed as for dredged material. While most of the excavated sediments are likely to be placed in a barge, there is a potential that depending on the level of contamination at the site, some contaminated sediments are likely to be mobilised from this disturbance and be dispersed to adjacent areas. In addition, based on the indicative methodology and sequence of construction, there may be sediment mobilisation if the excavated sediments are temporarily placed on the seabed in a dredged pocket. This could in turn mobilise the contaminants bound in the sediment. However, the contaminant concentrations tested were below ANZECC (2000) trigger values in elutriate (section 6.6.4.6 of the Golder Report). Accordingly, it is considered this effect would be minor.

- p. Seabed disturbance during pile driving and/or drilling may cause some organisms including fish and coastal birds to cease feeding in this area and to forage elsewhere. While the construction period is 18 months, it is likely that this effect will be limited to the time of construction and short term.
- q. In regards to underwater noise effects on marine fauna (marine mammals) during piles driving and vibration, a marine mammal contingency plan needs to be in place to manage construction in case the marine mammals are encountered close to the construction area. I note that Jon Styles addresses these effects in more detail in his acoustics and vibration report for the Council.
- r. In terms of microbiological water quality, the Golder Report states at section 6.8.2 (page 54) that as the Daldy Street discharge may contain human wastewater at times, it is likely that any significant storm water event would result in exceedance of the MfE (2003) green more guidance (140/100ml) and quality being categorised as amber mode. It should be assumed that the post discharge waters exceed the Alert level within Wynyard Basin and around Karanga Steps at the entrance to the Inner Viaduct Basin for at least 48hrs. The report recommends additional water quality monitoring in the area of the Wynyard Basin and within the Inner Viaduct Basin. While the activities related to the projects are on water and bacterial indicator numbers (enterococci) may vary depending on the sources at the site, if water quality is considered to be a concern in relation to any activities at the time of event, I agree that microbiological water quality needs to be monitored.

Biosecurity effects

- 2.38 The proposal would increase the vessel movements within the Viaduct Harbour. There is a potential for barges and other vessels/equipment used for construction to serve as vectors for unwanted and/or biosecurity risk species. Whilst some of the registered unwanted and/or biosecurity species in New Zealand have been identified at the subject site as indicated in the above section, movement of vessels can increase the infestation of these species and spread the risk to a wider area. In addition, the new structures especially pontoons can act as hotspots for colonisation, act as stepping stones or even corridors for some unwanted species as stated above. These effects can be minimised by the condition requiring a biosecurity management plan prior to construction and during decommissioning the AC36 structures as below.
- 2.39 The applicant has proposed conditions requiring a 'Decommissioning Biosecurity Management Plan' (conditions 114-116). As drafted the conditions are inadequate, as they are limited to decommissioning of infrastructure. I recommend that the conditions be replaced with the following (with a consequential change to condition 31(i)):

Biosecurity Management Plan

- 114. Prior to the installation of any structures or undertaking any dredging, the consent holder shall lodge a Biosecurity Management Plan (**BMP**) with the Team Leader Compliance Monitoring Central for certification in terms of the

matters in condition 116. The consent holder shall also lodge an updated BMP for re-certification prior to the decommissioning of any America's Cup Infrastructure. The consent holder shall implement the BMP following its (re)certification.

115. The purposes of the BMP are:
- (a) to avoid the spread of any unwanted/biosecurity risk species to the site during construction works;
 - (b) to avoid the spread of any unwanted/biosecurity risk species from the site to other locations during construction works, construction decommissioning and post-event decommissioning;
 - (c) to ensure that decommissioning of America's Cup Infrastructure is carried out in a manner that minimises the risk of any threats from unwanted/biosecurity risk species and / or the transfer of those threats off-site;
 - (d) to ensure that any operators of any vessels visiting the event are aware of their obligations to avoid the spread of any unwanted/biosecurity risk species to Hauraki Gulf or offshore islands.
116. The BMP shall include:
- (a) Identification of any unwanted/biosecurity risk species present;
 - (b) Identification of the potential for transfer of threat species off-site;
 - (c) Measures to avoid or minimise transfer of unwanted/biosecurity species, during construction works, construction decommissioning and post event decommissioning of Infrastructure;
 - (d) Measures to ensure that any operators of any vessels visiting the event are aware of their obligations to avoid the spread of any unwanted/biosecurity risk species to Hauraki Gulf or offshore islands.

2.40 The amended conditions proposed above also better accord with the recommendations in the Golder Report at page 65 that:

Given the presence of a wide range of non-indigenous organisms in Freemans Bay, a Biosecurity Risk Management Plan will be prepared to ensure that vessels used for construction and dredging do not pose any biosecurity risks and that risks are managed or mitigated when any demolition or decommissioning is carried out post the event.

Summary of effects on sediment and water quality

2.41 Sediment quality identified in some samples indicates that there are some hot spots for contaminants especially along the North Wharf area. Some of the contaminants such as DDT, TBT are known to cause acute and chronic toxicity and can cause lethal effects to many fauna and can affect the water quality. While species-specific information in relation to DDT and TBT toxicity is required to assess the effects on species identified in the proposed dredging area, it is considered that the species are already impacted by the toxic contaminants and/or might be tolerant as these contaminants are likely to persist in the area for long term. Accordingly, the sediment and water quality information on these contaminants is considered acceptable.

- 2.42 Proposed dredging has the potential to expose anoxic sediment with or without contaminants of concern and can mobilise the sediment and transport to adjacent areas depending on the physical processes at the site.
- 2.43 The elutriate testing did not detect any contaminants of concern other than ammoniacal nitrogen, because the detection limit was higher than the ANZECC 95% protection trigger value for other contaminants such as TBT and PAHs. Therefore, it is likely that other contaminants of concern are present in the sediment and can cause water quality effects when the TSS is released in the water column. However, the level of dilution at the site would minimise this effect.
- 2.44 Overall, whilst there is a potential for some of the contaminants identified in the sediment and water to cause adverse effects on benthic fauna, sediment and water quality related effects, given the highly disturbed environment, these effects are considered minor.
- 2.45 It is considered that using the backhoe dredger methodology for proposed dredging, the requirement of a dredging management plan and proposed/recommended sediment and water quality monitoring would provide an opportunity to minimise the effects from the proposed dredging and construction.

Conditions

- 2.46 The Golder Report recommends a Viaduct Harbour water quality monitoring programme in relation to construction (pre, and post-construction) and water quality monitoring during dredging. Proposed condition 65 suggests reviewing the trigger level of 25g/m³ depending on the baseline water quality results. I agree with this suggestion as the range of TSS level provided by Golder Associates for the subject site exceeded the proposed trigger level (25g/m³).
- 2.47 In addition, the report also recommends an Inner Viaduct Basin Environmental Management Plan (Section 7.2 of the Golder Report) which includes water and sediment quality monitoring, monitoring of ecological communities on floating pontoons, basin walls and piles and mitigations for coastal birds (red billed gull and white fronted tern).
- 2.48 Further, as noted, the report recommends (at page 65) a Biosecurity Management Plan to ensure that vessels used for construction and dredging do not pose any biosecurity risks during decommissioning and construction.
- 2.49 It is considered that all the above recommended monitoring and mitigation are appropriate to minimise/avoid the potential effects identified in the above sections. Accordingly, it is agreed these need to be implemented.
- 2.50 I have reviewed the applicant's Proposed Consent Conditions set out in Application Document 7, and have the following recommendations:
- (a) I suggest that proposed condition 114-116 be replaced with the biosecurity conditions set out at paragraph 2.39 above.

- (b) As the proposed dredging is expected to be approximately 5-7 months (Coastal Processes report), condition 69 needs to be amended to align with the dredging period as follows:

The Consent Holder shall provide monitoring reports to the Team Leader ~~—Coastal Compliance Monitoring - Central~~ and the Mana Whenua ~~Group~~ groups that participate in the preparation of the MWEP as follows:

- a) At completion of the one-off comprehensive water quality monitoring; and
- b) Every ~~six months~~ week for the duration of dredging and placement of mudcrete in the CMA for routine water quality monitoring.

The Consent Holder may seek the written approval of the Team Leader Compliance Monitoring – Central to modify the regularity of monitoring reports if no exceedances occur.

- 2.51 The weekly frequency for reports proposed above aligns with the obligation in proposed condition 56 to undertake water quality monitoring once per week while dredging and any placement of material in the CMA is underway.
- 2.52 I am otherwise content with the applicant’s proposed conditions.

Submissions

- 2.53 A number of submissions raise concerns in relation to the “environmental damage of a large quantity of concrete being poured into the harbour” (Submissions of Mr. John Wayne Mandeno, Mr. Brett MacLean). The concern seems related to construction of the Hobson wharf extension. I note that the proposed CEMP conditions (30, 31b, 33k) related to discharge to the CMA would manage any effects during construction.
- 2.54 One submission (by the Westhaven Marina Users Association Inc.) suggests that the leopard seal requires translocation. Whilst I acknowledge the submitter’s concern, I note that leopard seals are infrequent visitors to the subject site especially it was recorded recently at the subject site. If the seals were sighted within the AC36 works area, it is recommended that the applicant needs to inform the Department of Conservation who would manage the issue in accordance with the Wildlife Act 1955 and Marine Mammal Protection Act 1982.

Conclusion

- 2.55 Overall, as stated in above sections, I consider that any potential adverse effects on marine ecology including avifauna, marine mammals, sediment and water quality resulting from the proposal would be minor, subject to adherence to the proposed conditions of consent (as amended in accordance with my recommendations).

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6 REVIEW

Memo prepared by:

Dr. Kala Sivaguru

K Sivaguru

Consents and Compliance Advisor - Coastal Specialist Input, Resource Consents

Date:

19 June 2018

Memo and technical review reviewed and approved for release by:

Alan Moore

Alan Moore

Principal Specialist Specialist Input, Resource Consents

Date:

19 June 2018

APPENDIX C

SAM MORGAN

COASTAL PROCESSES REPORT

Technical Memo –Specialist Unit

To:	Nicola Broadbent – Lead Planner
CC:	Alan Moore, Principal Specialist – Specialist Unit; Tracey Grant, Principal Project Lead – Premium Resource Consents
From:	Sam Morgan, Coastal Scientist
Date:	30 May 2018

1.0 APPLICATION DESCRIPTION

Application and property details

Applicant's Name:	Panuku Development Auckland
Coastal activity type:	Coastal structures and dredging
Application purpose description:	For the construction, occupation and use by several new wharf and breakwater structures in the common marine and coastal area (CMCA) for the activity of berthing and associated service facilities, and dredging of the CMCA.
Relevant application numbers:	BUN60318372, CST60318379, CST60318400, CST60318401 and CST60318402
Site address:	Multiple sites located in and around Wynyard Wharf

2.0 PROPOSAL, SITE AND LOCALITY DESCRIPTION

2.1 Proposal relevant to this permit

- 2.1.1 The proposal seeks consents for the construction, occupation, use and maintenance of the permanent and temporary infrastructure to hold the America's Cup (AC36) event in Auckland, and any subsequent events within a ten year period. This includes the location of structures and undertaking of activities within the coastal marine area and on land. The key infrastructure components involve an extension to Hobson Wharf and the permanent bridging of a portion of the waterspace between Wynyard Wharf and Brigham Street, including associated piling. Four new breakwaters are proposed in association with the new wharf areas. The adjoining water space will be developed to provide for berthage associated with AC36 activities. This involves the removal of existing structures and location of new piles, pontoons and associated structures and services.

2.2 Site description

2.2.1 The site encompasses Hobson Wharf, Halsey Street Extension Wharf, Western Viaduct Wharf, the southern portion of Wynyard Wharf and Brigham Street adjacent to 8-34, 36-54 & 90 Brigham Street, the waterspace within the Wynyard Wharf South Waterspace between Wynyard Wharf and Princes Wharf, the waterspace within the Outer Viaduct Harbour, and public land areas within Wynyard Precinct and Viaduct Harbour Precinct, including Te Wero Island, Karanga Plaza and North Wharf (**Figure 1** below).



Figure 1: Subject site indicated by the red box.

3.0 ASSESSMENT OF EFFECTS - COASTAL PROCESSES

3.1 TECHNICAL ASSESSMENT - COASTAL PROCESSES

3.1.1 The applicant has provided a detailed assessment of coastal processes within the wider coastal setting. This assessment has relied upon modelling, observations and field measurements. The investigation has utilised existing tidal and bathymetric information and field measurements to inform the modelling programmes. The location of respective modelling points is provided in **Appendix A** of this report. The findings are summarised in the following reports:

- America's Cup Wynyard Hobson Application for Resource Consent: Assessment of Environmental Effects (**AEE**). Prepared by UNIO Environmental Ltd, 13 April 2018 (Application Document 4).

- The applicant's Proposed Consent Conditions (Application Document 7).
- America's Cup, Wynyard Hobson, Coastal Processes & Dredging Technical Report (**Coastal Processes Report**). Prepared by Beca Ltd (**Beca**) and Tonkin & Taylor Ltd (**Tonkin & Taylor**), April 2018 (Application Document 16), including:
 - The Beca Hydraulic Modelling Report, April 2018 (Appendix B to the Coastal Processes Report);
 - The Tonkin & Taylor Hydraulic Modelling Report, dated April 2018 (Appendix C to the Coastal Processes Report);
 - Americas Cup Investigations Wynyard Basin Numerical Wave Modelling, prepared by Cardno Ltd, 10 April 2018 (Appendix D to the Coastal Processes Report);
 - Wave Tranquillity Performance Criteria, A Tonkin & Taylor Memo, dated 20 November 2017 (Appendix E to the Coastal Processes Report).

3.1.2 The structure of this assessment will focus on the main coastal processes operating in the respective areas identified in **Figure 2** below. A summary of existing and predicted changes is provided together with an assessment of the effects. Where relevant, suggested mitigation and monitoring methods are recommended in order to manage the potential impact of the proposal upon local coastal processes.

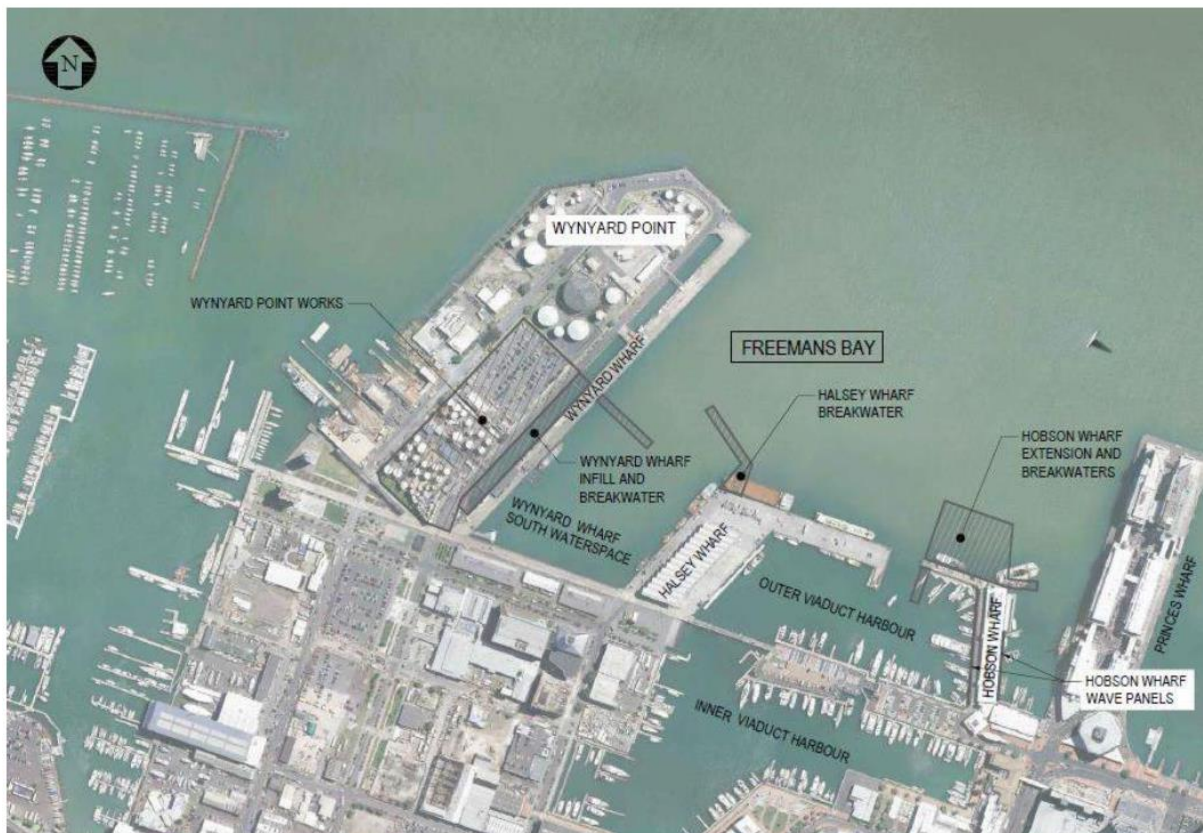


Figure 2: Different areas of interest from the proposed development (reproduced from Figure 2 of the Coastal Processes Report).

3.2 GEOMORPHIC CONTEXT

- 3.2.1 A significant degree of historical modification has occurred across the subject area. The natural shoreline is between approximately 650 and 1300m landward of the existing line of MHWS due to reclamation and associated structures. The historical shoreline is assumed to have been characterised by areas of intertidal flats backed by saltmarsh, mangrove and beach settings. Therefore, the main natural geomorphic aspects and features of the area have already been lost and the proposal therefore presents no further impact upon them.
- 3.2.2 The applicant has provided context as to the increase in the change of the proposed upon existing modification and the wider Waitemata Harbour. This is summarised in Section 4 of the applicant's AEE. The proposed extension of Hobson Wharf will not extend seaward of the current developed nodes of Wynyard Point and Princess Wharf. The other structures enclosing the Wynyard Wharf South Waterspace area will not protrude significantly beyond the existing alignment and are not considered to be significant structures.
- 3.2.3 The proposal is therefore a change to an already highly modified geomorphic environment. The potential effects of the proposal upon the existing geomorphic setting are considered to be less than minor.

3.3 TIDAL CURRENTS

- 3.3.1 The applicant has provided a description of both the wider Waitemata Harbour tidal regime and a focused discussion on tidal patterns from within the subject area. In general, it is considered tidal currents and velocities within this section of the Waitemata Harbour are dominated by the main tidal channel (and associated sub currents and eddies), and the localised currents within the subject area, being affected by the existing harbour development. These will alter tidal flow and current patterns by redirection, channelising or back eddies that form as the main tidal flow moves past a particular development.
- 3.3.2 It is considered that due to the location and scale of the proposal in the context of the existing development, it will have a negligible impact on tidal levels or currents within the wider Waitemata Harbour. In general, these effects of the proposal are expected to be localised in their extent. This is discussed in more detail below.
- 3.3.3 Overall the tidal prism and amplitude within Wynyard Wharf South Waterspace and Viaduct Harbour areas are not expected to be significantly affected as the proposed structures are either piled or floating structures. Such structures have minimal impact upon the amount of open water being displaced. The applicant has estimated the change to be in the order of a 0.2% reduction in the Freemans Bay area. It is noted that the proposed structures will still provide some impediment to tidal currents in the area, the implications of which are discussed below.

- 3.3.4 In general, it is expected that, where the entrance to the Viaduct Harbour is being extended further toward the main tidal channel by the addition of the extension of Hobson Wharf, tidal velocities will increase as the length of what is effectively a sub channel (created by the structures) is increased. Velocities are then expected to decrease as the current reaches the wider body of water, and as tidal flows move through a larger area of pile structures and wave dissipation panels. In general, this is reflected in the modelling results which show minor decreases in current velocities from modelling points 8 and 9 (**Figure 3, Appendix A**).
- 3.3.5 Contrary to the line of thought above, it is noted that modelling point 7 (**Figure 3, Appendix A**) shows a reduction in the average tidal velocities. This may be a result of its location at the existing entrance to the Viaduct Harbour. A reduction in velocities at this point may be a result in the seaward shift of the entrance point and a settling of the current velocities as water moves around the new structures.
- 3.3.6 An increase in the average tidal velocities is noted at modelling point 5 (**Figure 3, Appendix A**). This appears to be associated with a minor extension to the north eastern corner of Hobson Wharf. The small pier type structure will restrict existing tidal movements into the associated water body, in effect condensing the tidal currents. However, the reported increase is approximately 0.05m/s and therefore considered to be minor, with no discernible on flow effects expected.
- 3.3.7 In understanding the tidal regime, the proposed 'Wynyard Basin' area is represented by modelling points 6 and 10 (**Figure 3, Appendix A**). Predictably an increase in tidal velocities from point 6 is expected as tidal flows will be constricted around the entrance to the newly formed basin. Modelling point 10 shows reductions in the average current velocities and a maximum drop in velocities of 0.2m/s or less. Overall this is considered consistent with the creation of a basin designed to reduce the coastal processes. This in turn will potentially affect the flushing capacity of the basin and sedimentation within proposed 'Wynyard Basin'. These potential effects are discussed in more detail in the sections below.
- 3.3.8 Overall, the modelled water velocities through this part of the proposed works are between 0.1 and 0.5m/s and the changes are not considered significant enough to have an impact on bed stability or on the surrounding environment. It is noted that an overall reduction in tidal currents may have an impact upon the flushing times and sedimentation rate of the respective basins. These aspects are considered in more detail below.

3.4 WAVE AND WAKE CLIMATE

- 3.4.1 Due to the sheltered nature of the subject area the wave climate is dominated by waves generated by wind events from the north and boat wakes from vessels operating within the wider area. How the proposal interacts with wave and wakes within the area is important because one of the main objectives of the coastal structures is to provide a more sheltered environment for berthing. But it needs to be understood if the potential additional reflection of wave energy associated with this objective may impact upon adjoining areas.

- 3.4.2 For this assessment I undertook some basic calculations around what height the wind generated waves might be during storm events as a check on the modelling parameters used to assess the potential effects. From the calculations I anticipate that wind generated wave heights will be in the order of 0.8-0.85m in height. This is a conservative estimate based upon the high tide fetch and a 12-hour wave generation period. In reality, the generation of wind waves is expected to be significantly impacted by variations in wind direction and open water (due to the tidal cycle) over a storm or wind event. Therefore, this estimate is considered to be consistent with wave heights used in the applicant's modelling predictions.
- 3.4.3 Boat wake is considered to be an important factor in determining the wave climate within the subject area. The applicant has adopted a significant wake height of 0.5m for modelling purposes. While this may be lower than wake heights reported from other parts of the Waitemata Harbour, confidence in its application for modelling is provided by wave sensor data collected by the applicant for the purpose of informing these investigations.
- 3.4.4 The modelling results only present a singular directional representation of wave behaviour (existing and proposed) and differentiating between wave and wake activity. Hence, it is unclear if modelling results have taken into account combined wave/wake heights from different directions or from changes in vessel movements. However, as the model has incorporated wave sensor data in the model calibration, this provides confidence that the modelling results predict the changes in combined wave/wake heights. With respect to changes in vessel movement it is accepted this can largely be controlled by navigation rules dictating vessel speed and therefore the size of wakes being generated by vessels.
- 3.4.5 The assessment of effects provided below is therefore accepting of the modelling parameters used in the applicant's assessment.
- 3.4.6 Overall, it is considered that the scale of the proposal, in the context of the existing development, will have a negligible impact on the wave and wake climate within the wider Waitemata Harbour. In general, these effects are expected to be localised in their extent and discussed in more detail below.
- 3.4.7 It is generally accepted that wave heights within the Wynyard Wharf South Waterspace area will be reduced. This is due to the additional shelter being afforded to the area by the proposed structures. This area is represented by modelling points Inshore 5-14 (**Figure 4, Appendix A**) which show an overall reduction in the predicted significant wave height¹. This is considered to be a realistic representation of the change in wave/wake climate at this location given the existing environment. Further, the predicted significant wave heights are within the guidelines for safe berthage.
- 3.4.8 Some reflection of waves and wakes is expected with the introduction of wave deflection panels in the design. This will likely have the biggest effect on the areas north

¹ Significant wave height (SWH or H_s) is defined traditionally as the mean wave height (trough to crest) of the highest third of the waves ($H/3$).

of the proposed new structures and represented by modelling points Probe 1-4 and Inshore 1-5 and Inshore 15 (**Figure 4, Appendix A**). Modelling results show a minor variation between increases and decreases in significant wave height, dependent upon the location of a particular point and the direction of the modelled wave direction. It is recognised that any increases are likely due to reflection from the proposed structures, and this will be greatest in the immediate proximity of the proposed structures, and then dissipate as the reflected wave/wake moves into deeper water. The predicted modelling results are considered to be a realistic representation of the change in the wave/wake climate.

- 3.4.9 It is noted that the periodicity of waves and wakes in the area is generally low (less than 5 seconds). Wave period is a reflection of the overall energy of wave/wake with longer period waves considered to have greater energy and deeper penetration through the water column. With this in mind, and given the predicted changes, any potential effects are considered to be less than minor and unlikely to have a substantive impact on sea bed stability or tidal current movements.
- 3.4.10 There is the potential for a change in wave/wake climate from reflection associated with the wave attenuation panels to impact navigation of vessels around the Maritime Museum basin. The applicant has suggested that this be controlled by the inclusion of small breakwater on the eastern side of Hobson Wharf. Modelling results show a minor improvement overall in the wave/wake climate at this location, and in some instances a small increase in the predicted significant wave height. However, these changes are relatively minor (0.08m or less) and the predicted pattern of wave dispersion in the basin from the proposal does assist the current berthage along the western face.
- 3.4.11 Whilst it is recognised that the nature of the new structures is intended to alter the wave and wake climate, in the context of the wider receiving environment and the information above the effects of the proposed on the overall wave and wake climate will be no more than minor.

3.5 BASIN FLUSHING

- 3.5.1 The flushing from the respective basins is a function of the ability of tidal currents to move water around and ultimately out of the basin. The proposal will affect basin flushing as the proposed structures will restrict the flow of tidal water into and out of various basins and the way water moves around the basins. The more restricted a basin's entrance, the more time it takes for water to enter on a flood tide and leave the basin on an ebb tide. The creation of sub basins may also lead to further restrictions leading to lower velocity diffuse flows.
- 3.5.2 The applicant has provided a range of analyses on basin flushing within the area of the proposal (see section 4.3 of the Coastal Processes Report). The most relevant is considered to be the *E-Folding* method, which estimates the amount of time for a contaminant to be diluted to a desired level when introduced to a uniformly mixed body of water. This is considered to be the most relevant to the proposal in assessing its impact upon water quality and ecology.

- 3.5.3 Comment is provided below on the predicted changes from the *E-Folding* assessment. These results will need to be put in to the context of existing water quality and contaminant loading within the subject area to determine the overall impact on the area.
- 3.5.4 In general, it is predicted that the proposal will reduce flushing capacity and that flushing times will increase. This is primarily related to the proposed increase in the length of the effective basin entrance (between the Viaduct Wharf and Hobson Wharf) and the introduction of more wave attenuation panels, which will reduce water flow beneath the wharf structures.
- 3.5.5 The change in *E-Folding* flushing times for this area is predicted to increase to between 14 hours and 206 hours post-development depending on the modelling point and tidal cycle (see Tables 14a and 14b in the Coastal Process Report which provides a summary of all respective model outputs²). These times are still within World Association for Waterborne Transport Infrastructure (PIANC) guidelines which indicate ‘good flushing’ (less than 96 hours) and ‘fair flushing’ (between 96 and 240 hours). There may be areas of increased flushing times not covered by the *E-Folding* modelling analysis. It is recommended that this be monitored through a proposed monitoring and management plan to be submitted as a condition of resource consent.
- 3.5.6 With the proposed Wynyard Wharf South Waterspace area, tidal currents are expected to be reduced with the creation of a more sheltered environment (the exception to this being those currents in the vicinity of the entrance). This will inevitably lead to greater retention times within this area and an increase in basin flushing time and this is reflected in the model results. However, the amount of time that flushing will take within this basin is still considered to be below the 96 hour threshold that determines ‘good flushing’. It is noted that there is only one modelling point from within this area (Point 10) and hence there may be parts of Wynyard Wharf South Waterspace that may experience further increases in flushing times in localised pockets. It is considered that issues associated with this can be addressed through the development of a monitoring and management plan to be submitted as a condition of the resource consent.

3.6 SEDIMENTATION

- 3.6.1 Overall it is considered the reduction in tidal velocities will result in an increased rate of sedimentation. In general, it is expected that sedimentation rates will likely increase in areas that become more sheltered as a result of the proposal. This includes areas under proposed wharf structures. Further, in areas where dredging will occur, rates of sedimentation can be expected to be accelerated as new equilibriums in the ocean floor contours are sought by the wider system.
- 3.6.2 It is recognised there are no significant sources of sediment present within the subject area. Therefore, any sedimentation that may occur is likely to occur from diffuse sources from within the wider Waitemata Harbour environment. The applicant is reliant

² The model results did vary between the Beca and Tonkin & Taylor model runs. Variance in models is to be expected as different users will apply small changes to variables within the model. In this instance the results from both models are considered to be close enough to provide a level of confidence in their ability to convey potential changes at the site.

upon sedimentation rates from dredging data to be sufficient for an analysis of potential effects. However, this does not account for a concentration of contaminant loads from local sources.

- 3.6.3 Consideration below is given to the significance of any reduction in tidal velocities upon the likely change in rate of sedimentation within the different settling basins. Overall the existing area is considered to be a depositional environment and changes in sedimentation rates are mostly likely to impact on navigational use of the area, as the existing ecology and geomorphology are accepting of these conditions. Any increase in sedimentation is expected to be managed by existing maintenance dredging programs.
- 3.6.4 As stated above the applicant has estimated sedimentation rates based upon historical rates from within the general area (see section 4.5 of the Coastal Processes Report). These are considered appropriate to assess potential changes in sedimentation rates within the area. In general, it is considered that sedimentation rates will increase by approximately 10mm/year.
- 3.6.5 The applicant has noted that increased rates of sedimentation beneath the proposed structures are anticipated (page 42 of the Coastal Processes Report). It is recognised that modelling of sedimentation rates in these areas is problematic. However, it is expected that sediment accumulation in these areas will reach an equilibrium point as the seabed rises into a more active point in the water column, become more susceptible to coastal processes and settling capacity reduces. Overall, the impact of increased sedimentation in these areas is considered to be less than minor.
- 3.6.6 Sedimentation within the proposed Wynyard Wharf South Waterspace area is expected to increase due to the creation of more tranquil waters. The applicant has estimated localised sedimentation rates in this area to be in the order of 140mm/year. However, there is no modelling undertaken to support this estimate.
- 3.6.7 Overall, the proposal will result in increased sedimentation as a result of diminished water velocities. Sedimentation will predominantly occur in waterspace managed by the applicant and they will be responsible for maintaining appropriate water depths. The area is currently subject to a maintenance dredging programme. In a worst-case scenario the frequency of maintenance dredging may need to be increased slightly. Overall, the impact of increased sedimentation in these areas is considered to be less than minor.

3.7 DREDGING

- 3.7.1 Five dredging areas are proposed by the applicant in order to provide suitable access and usability to the respective areas of the proposed development. Design depths range between CD -5.7 and -6.2m and the applicant estimates that this will require approximately 78,000m³ of capital dredging (see section 5.1 of the Coastal Processes Report). Of this it is estimated that 8,000m³ will need to be deposited to approved land based site and the remainder will be able to be disposed offshore. Maintenance dredging is already undertaken within the port area including the subject site under an

existing consent (Permit #34673). It is proposed that any maintenance dredging that is required is undertaken under this existing consent.

- 3.7.2 It is proposed that dredging will be undertaken via backhoe dredger operating from a barge (see section 5.3 of the Coastal Processes Report). Dredge spoil will be transferred to a hopper barge for marine disposal. The applicant recognises that this method may create a localised sediment plume as overflow from the hopper barge and backhoe bucket is expected (see section 5.4.2(a)). The applicant has estimated that the daily sediment release from bucket spill and hopper overflow to be approximately 1.9 tonnes per working hour. For context the applicant has looked at the total estimated sediment release over the work period and compared this to the natural sediment flux within the wider harbour setting. Overall the proposed works represents approximately 1.2% of natural sediment dynamic fluctuations within the harbour.
- 3.7.3 The applicant has suggested a trigger level for suspended sediment concentrations of 25g/m³ for this proposal, which is the same level used for previous dredging operations in the Waitemata Harbour (see section 5.4.2(c) of the Coastal Processes Report, and conditions 62 in the applicant's Proposed Consent Conditions). This trigger level is subject to review in accordance with proposed condition 65. This is considered to provide a useful base line for future monitoring of plume creation. The dispersion rate has been estimated to be a 95% fall out of sediment close to the release point. This is based upon settling velocities of 1.5 to 4m/hr. However, the settling rate may be impacted by changes in tidal flows and especially in areas closer to the main tidal channel and around the entrance to the Viaduct Harbour, but not to an extent to significantly change the overall effect.
- 3.7.4 It is noted that the potential amount of sediment to move significantly beyond release point is minimal in comparison to the scale of depositional environments throughout the outer Waitemata Harbour. Therefore, subject to the suggested conditions of consent, the impact of dredging operations is considered to be less than minor.

3.8 SEA LEVEL RISE

- 3.8.1 The proposed structures are not considered to increase the potential impact of sea level rise. The applicant has taken into account the effects of sea level rise within the context of the suggested life expectancy of the proposed structures. Sea level rise will not be an issue during the course of the proposed AC36 event (or any subsequent events held during the 10 year period).
- 3.8.2 The applicant has recognised that the sea level rise may at some point have an impact on the usability of the wharf deck space. The applicant has proposed using wharf piles that can be extended to adjust the wharf deck height should this situation arise.

3.9 SUBMISSIONS

Submission by Auckland City Centre Resident's Group

- 3.9.1 The submission from the Auckland City Centre Resident's Group raised the issue of filling the area to the west of Hobson Wharf instead of extending the structure 75m seaward. Without seeing any detail around this idea there may be issues with a reduction of the tidal prism and reduction of flushing potential of the Viaduct Basins. This would be particularly true if fill material were to be used which would reduce the overall water volume in the area and more importantly present a physical barrier water movement in the area. This would need to have the appropriate level of investigations undertaken to determine if the reduction in flush capacity was enough to lead to more than minor effects.

Submissions by Ngaati Whanunga, Ngāti Maru, Te Patukirikiri, Ngai Tai Ki Tamaki, Ngati tamaoho, Ngāti Tamaterā and Te Akitai

- 3.9.2 With respect to comments around the cumulative effects raised in the submissions from Ngaati Whanunga, Ngāti Maru, Te Patukirikiri, Ngai Tai Ki Tamaki, Ngati tamaoho, Ngāti Tamaterā and Te Akitai it is noted the proposed represents an approximate 1-1.5% increase in the wider area (including the Ports of Auckland space) reclaimed from the original shoreline, depending on how you define the area impacted. It is my opinion that the more important issue is whether the proposal involves an extension beyond the outer control points of Wynyard Point and Princess Wharf. An extension beyond existing development nodes would represent a more substantial impact upon the geomorphic characteristics of the subject area. This point is discussed further in Section 3.2 of this memo (where I note that the proposed extension of Hobson Wharf will not extend seaward of the current developed nodes of Wynyard Point and Princess Wharf).

Submission by The Tug William C Daldy Preservation Society Inc

- 3.9.3 The submission from The Tug William C Daldy Preservation Society Inc has requested additional berthage be allowed for at the eastern base of Queens Wharf. To allow for this the Society has suggested that additional fender piles would be required to allow for safe berthage. Without seeing any details around this proposal it is difficult to ascertain the likely impact of this work. However, given the nature of the proposed works and scale of modification in the existing area it would seem unlikely that such a proposal would present effects that would be any more than minor.

Submission by Sail World New Zealand Ltd

- 3.9.4 The issue of the effectiveness of the breakwaters to create calm water was raised in point 5 of this submission. I do not agree with the concerns raised. The respective typical cross sections show the inclusion of pre-cast concrete wave panels to allow for the dampening of wave energy to the newly created basin. These panels will be similar

in nature to the existing situation providing shelter to the Viaduct Harbour.

3.10 CONDITIONS

3.10.1 I have reviewed the applicant's Proposed Consent Conditions set out in Application Document 7, and have the following recommendations:

- a. Condition 53(c) presently proposes that a Council officer shall certify, as part of the Management Plan for Dredging and Placement of Mudcrete in the CMA, the following:

Details of the physical (textural and geological) and chemical (bulk chemistry and leaching potential) characteristics of the dredged materials if these are different from those contained in the documentation provided in support of the application for this consent;

I suggest that proposed condition 53(c) be altered to place an onus on the applicant to demonstrate there is no change in the physical characteristics of dredge materials, since the Council is unlikely to have access to information with respect to the chemical composition of those materials to enable certification of the results and ensure material from the dredging is being dealt with in an appropriate manner through the construction phase. The condition could instead read:

Details of the frequency with which information concerning the physical (textural and geological) characteristics of the dredged materials is to be provided to the Council throughout the physical works period.

- b. Proposed conditions 117-119 presently provide for an Inner Viaduct Harbour Environmental Management Plan. For the reasons set out in section 3.5 above, I suggest that this Management Plan be extended to include the Wynyard Wharf South Waterspace area.
- c. The monitoring frequency in proposed condition 119(c) should be increased to once every 3 months, rather than once every 12 months, to enable a seasonal representation of changes in the area.

4.0 RECOMMENDATION AND CONDITIONS

4.1 Adequacy of information

4.1.1 The above assessment is based on the information submitted as part of the application. It is considered that the information submitted is sufficiently comprehensive to enable the consideration of the above matters on an informed basis:

- a. The level of information provides a reasonable understanding of the nature and scope of the proposed activity as it relates to the Auckland Unitary Plan: Operative in Part.
- b. The extent and scale of any adverse effects on the environment are able to be assessed.

4.2 Recommendation


4.2.1 The assessment in this memo does not identify any reasons to withhold consent, and the aspects of the proposal considered by this memo relating to coastal structures and dredging could be granted consent, subject to recommended conditions, for the following reasons:

- Subject to the imposition of the proposed consent conditions, as discussed in section 3.10 above, it is considered that the adverse effects on the receiving environment's coastal processes would be no more than minor.

5.0 REVIEW

Memo prepared by:

Sam Morgan



Consultant Coastal Scientist

Date:

30 May 2018

APPENDIX A



Figure 3: Tidal modelling output locations for the Wynyard Wharf South Waterspace and Viaduct Harbour (reproduced from Coastal Process Report, Figure 10).

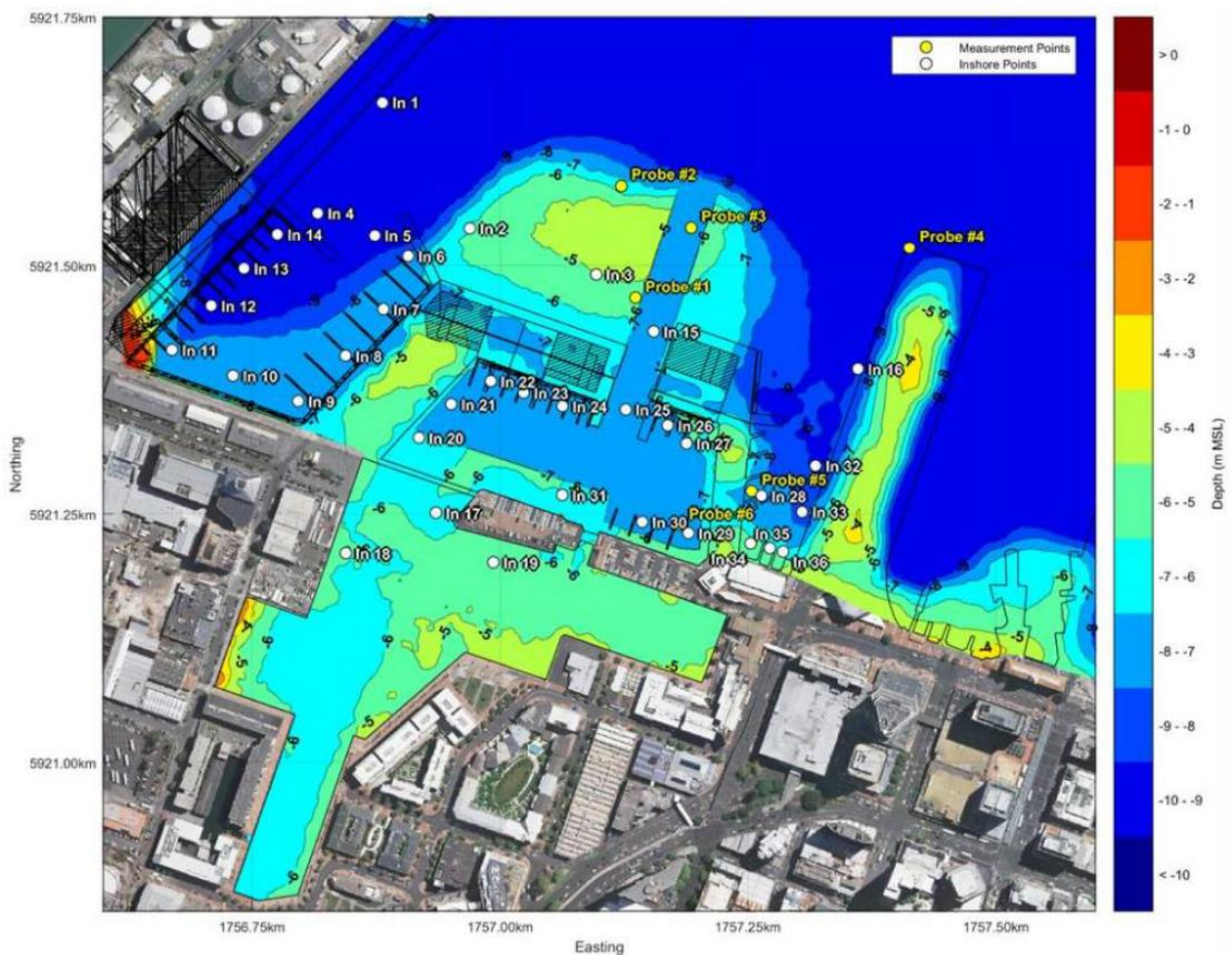


Figure 4: Wave/wake modelling point locations for the Wynyard Wharf South Waterspace and Viaduct Harbour area (reproduced from Coastal Process Report, Figure 13).

APPENDIX D

CHARLIE BRIGHTMAN

GEOTECHNICAL REPORT

Technical memo - Specialist Unit

To: Nicola Broadbent, Team Leader - North West Resource Consenting Unit, Auckland Council

From: Charlie Brightman, Principal Geotechnical Specialist, Engineering and Technical Services, Auckland Council

Date: 19 June 2018

1.0 APPLICATION DESCRIPTION

Application and property details

Applicant's Name/
Application Name: Panuku Development Auckland / America's Cup Wynyard Hobson

Service Centre Application
Number: BUN60318372

Activity type: Waterfront Infrastructure Development – Geotechnical Design

Site address: Wynyard Point & Wynyard Wharf, Auckland CBD

Application Documents

- 1.1 This report provides a geotechnical subject area review and assessment of the effects of the Panuku Development Auckland (**Panuku**) proposed development associated with the America's Cup Wynyard Hobson resource consent application (the **Application**).
- 1.2 The following documents relevant to the geotechnical subject area submitted as part of the Application have been reviewed for this report:
- a) *America's Cup Geotechnical Report for Resource Consent Application, Wynyard Hobson*, prepared for Panuku Development Auckland and Ministry Business, Innovation and Employment by Beca Ltd, dated April 2018 (the **Beca Geotechnical Report**, Application Document 25);
 - b) *America's Cup Physical Infrastructure Technical Report for Resource Consent Application, Wynyard Hobson*, prepared for Panuku Development Auckland and Ministry Business, Innovation and Employment by Beca Ltd, dated April 2018 (The Beca Physical Infrastructure Technical Report, Application Document 9);
 - c) *America's Cup Engineering Concept Drawings for Resource Consent Application*,

Wynyard Hobson - DS5.1 Concept Engineering Drawings 1 to 3, prepared by Beca Ltd, dated April 2018 (the **Beca Concept Engineering Drawings**, Application Documents DS5.1 – DS5.3);

- d) *America's Cup Wynyard Hobson Proposed Conditions of Consent*, Panuku Development Auckland, 2018 (the **Proposed Conditions of Consent**, Application Document 7);
- e) *Further Information provided in relation to America's Cup Wynyard Hobson BUN60318372*, Letter from UNIO Environmental Ltd to Nicola Broadbent Auckland Council dated 19 April 2018.

2.0 PROPOSAL, SITE AND LOCALITY DESCRIPTION

- 2.1 The proposed works for the development are described in the Executive Summary of the Beca Physical Infrastructure Technical Report as follows:

... The proposed marine infrastructure comprises re-purposed existing structures, a 74m extension to Hobson Wharf, four new breakwaters, wave panels on Hobson Wharf and Halsey Wharf and wharf infills to Wynyard Wharf to provide waterfront infrastructure to facilitate the America's Cup event(s). This is in combination with physical modifications to the Viaduct Event Centre to be used as a syndicate base and the Wynyard Point landside works.

The proposed Wynyard Point infrastructure involves redevelopment of the area east of Hamer Street to provide up to five syndicate bases on land that has predominantly been used for the storage of bulk liquids, parking of cars and general storage. ...

- 2.2 The site and locality description of the proposed development is an area of historically reclaimed land on the waterfront of Auckland Harbour. The Beca Physical Infrastructure Technical Report describes the site area as follows (at section 2.1):

The location of the America's Cup physical infrastructure works is within an existing harbour basin bounded on the south and west by historical waterfront reclamations. Wynyard Point is an area of reclaimed land formed between the late 1800's to the 1930's. Wynyard Point extends north from the north-western corner of the Wynyard Quarter, is approximately 530m long by 200m wide. The reclamations are bordered by seawalls and piled, reinforced concrete wharves.

The seawalls range from recent post and panel seawalls at North Wharf (completed in 2009) and Viaduct Harbour (2000) to the Wynyard Point rock bunds dating from the 1920s.

The wharves similarly range in age from Halsey Street Extension Wharf, Western Viaduct Wharf and the extension to Hobson Wharf (2000) to Wynyard and Princes Wharves (1920s-1930s). Wynyard Wharf runs along the eastern side of Wynyard Point and is an open piled concrete structure constructed during approximately the same period as the reclamation (1920s-1930s).

- 2.3 The Beca Physical Infrastructure Technical Report and the Beca Geotechnical Report detail the proposed piling, ground improvement/stabilisation, earthworks fill activities. These activities are reviewed in this Technical Memo for the geotechnical subject area.

Aspects of the Proposal relevant to the geotechnical subject area

- 2.4 The ground engineering works of piling and ground improvement/stabilisation for earthworks fill are understood to be intended to address the anticipated natural hazard of land instability under both static and seismic conditions. The Beca Physical Infrastructure Technical Report describes in detail the proposed ground engineering works (at section 4.3.6.1):

- Southern 220m of Brigham Street: behind seawalls:
 - Ground improvement in the form of cement-stabilised or stone columns or piling.
- Syndicate Bases:
 - Clearance including pavement and topsoil removal and potentially undercut associated with re-paving at the site of the syndicate bases.
 - Building foundations, anticipated to be strip foundations or piles.
 - Capping / raising of ground levels using dredgings or material excavated from the works (e.g. borings from piles) and other Wynyard Quarter sites.

- 2.5 The ground improvements have been described in the Beca Geotechnical Report as (at section 6.2.2):

Treatment of the soil by ground improvement. Ground improvement options include either a series of piles or stone columns to mitigate against liquefaction or cement-stabilised columns, placed in a lattice pattern to strengthen the soils and mitigate liquefaction. For the cement stabilised columns option, a raft around 2 m thick may be required to reduce the risk of columns reflecting though pavement surface and provide improved performance linking the columns together. Some improvement may also be undertaken using dig out and replace methodology (possibly to remove obstructions). Such treatments would likely extend some 20 m landward of the existing seawall and to depths of 10 to 15 m: or specifically designing a structure to accommodate the displacement. The new structures may include large diameter piles up to 2 m in diameter and will adopt a displacement-based approach, accommodating seismic-induced movement for egress without collapse.

Construction of such ground improvements in this area will likely necessitate the removal of existing structures such as the old seawalls and old isolated piles no longer required.

3.0 ASSESSMENT OF EFFECTS - GEOTECHNICAL SUBJECT AREA

- 3.1 Overall, I consider that the applicant's Proposed Conditions of Consent are appropriate to address the principal potential environmental effects of construction of the proposed development from a geotechnical perspective. The primary recommendation in this report is that a project geotechnical design report be required (the detailed wording for a set of proposed conditions is set out later in this report).

Land Instability

- 3.2 The Beca Geotechnical Report (in the Executive Summary) indicates that the area of the proposed development has potential for land instability:

Existing perimeter structures at Wynyard Point and adjacent to Wynyard Wharf have low static factors of safety. The underlying soils may also be susceptible to liquefaction during an ultimate limit state (ULS) earthquake resulting in seismic lateral and vertical displacements. ...

- 3.3 The report mentions low static factors of safety for existing perimeter structures, although the factor of safety values are not included. The geotechnical and structural designs for the proposed development, including remedial design to existing land and structures, must therefore assess and satisfactorily address the potential for instability under both static and seismic conditions in order to reduce the risk and effect of land instability to an acceptable level for the design life of the specific parts of the development.
- 3.4 I recommend a consent condition requirement for investigation, assessment and engineering design to address the risk of land instability.

Effect of Development on Surrounding Structures

- 3.5 The proposed development is sited in an area of existing reclaimed land surrounded by existing structures. The Beca drawing 'Wynyard Point Works Civil Drawing 7 titled 'Indicative Extent of Ground Improvement' (3233847-CA-4207 Rev B) shows the ground improvement area to be adjacent to existing seawalls and piling. The effect of the development on these structures must be assessed by inspection, analysis and subsequent appropriate design and remedial works to ensure the proposed development does not adversely affect the durability or stability of these existing structures.
- 3.6 I recommend a consent condition to control potential detrimental effects on surrounding structures caused by the development.

Acid sulphate soils

- 3.7 Disturbance of the Tauranga Group alluvial and estuarine sediments underlying the site has the potential to cause oxidation, leading to lowering of the soil pH and leaching and transport of acidity into groundwater and the marine environment. Disturbance of these soils is proposed, in the form of piling and deep ground improvement works. No detailed assessment of the acid sulphate potential of the soils and the subsequent effects on the environment has been received or proposed. The level of risk this may pose is unconfirmed.
- 3.8 I recommend a specific consent condition is imposed requiring an assessment for acid sulphate soils and an assessment of the potential environmental effects and effects on proposed buried structures of acidity caused by disturbance of these soils. Mitigation measures should be included where acid sulphate soils are identified.

Geotechnical Design

- 3.9 A full detailed geotechnical design has not been undertaken at this stage of the proposal which I understand is at an early stage in the concept design process. In order to ensure appropriate detailed geotechnical design is undertaken to address the natural hazard RMA considerations, I recommend a specific consent condition requiring a geotechnical design report to be prepared and submitted to Auckland Council for review and approval at a suitable time prior to commencement of construction works.

Submissions

- 3.10 It is understood that as the date of this report no submissions or feedback relevant to the geotechnical subject area have been received.

Conclusions

- 3.11 Panuku has generally adequately assessed the effects relevant to the geotechnical subject area, at this stage in the process where concept design is available. The detailed geotechnical design for the proposed development should provide information to Auckland Council for review and approval in response to specific consent conditions.
- 3.12 Overall I am able to support the proposals subject to modifications. I recommend an additional set of consent conditions addressing the issues discussed in in this section of this report. The wording of the recommended consent conditions is set out in Section 4.0 of this report.

4.0 RECOMMENDATION AND CONDITIONS

Recommendation

- 4.1 The assessment in this memo does not identify any reasons to withhold consent and the aspect of the proposals considered by this memo could be granted consent subject to recommended conditions set out below.

Draft Consent Conditions

- 4.2 Conditions concerning general environmental effects of ground engineering construction works are provided in the Panuku America's Proposed Conditions of Consent (Application Document 7 – Conditions 29-35, 51-101). I have reviewed the Proposed Conditions of Consent document and consider that they are broadly appropriate for the construction considerations, with the exception of disturbing potentially acid sulphate soils. Additionally the conditions do not address the geotechnical design requirements for the design life of the proposed development. A recommended draft condition of consent to address these missing considerations is detailed below:

A project geotechnical design report shall be prepared and submitted for approval to the Team Leader Compliance Monitoring - Central no later than 20 working days before any construction works (including any demolition and removal of buildings and structures) begin. This design report shall include analysis and design to address specific natural hazards likely to affect the development and shall include but not be limited to:

- a) Investigation and assessment of the risk and effects of liquefaction under design seismic conditions including assessment and design of appropriate detailed liquefaction mitigation measures.
 - b) Assessment of the potential for the presence of acid sulphate soils within the underlying strata disturbed by the proposed development. Where acid sulphate soils are identified, the report shall include assessment of the potential environmental effects of acid sulphate soil disturbance including appropriate mitigation measures.
 - c) Detailed geotechnical assessment and design of structures and earthworks fill which demonstrates stability and appropriate performance in accordance with the current adopted design codes for the specific intended design life, considering the destabilising effects of natural hazards.
- 4.3 I have read the development engineering report by Ahad Khan, and suggest that the above conditions could sit in a "Geotechnical Conditions" section, alongside the geotechnical-related earthworks conditions recommended by Mr Khan.

5.0 REVIEW

Memo prepared by:

Charlie Brightman



**Principal Geotechnical Specialist – Geotechnical & Geological Practice,
Engineering and Technical Services**

Date:

19 June 2018

Reviewed and approved for release by:

Ross Roberts

Ross Roberts

Digitally signed by Ross Roberts

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Date: 2018.06.20 10:05:20 +12'00'

Geotechnical & Geological Practice Lead, Engineering and Technical Services

Date:

19 June 2018

APPENDIX E

PETER KENSINGTON

LANDSCAPE AND VISUAL EFFECTS REPORT

memo

- Date:** 20 June 2018
- To:** Nicola Broadbent – Team Leader, North West Resource Consenting Unit
Resource Consents Department, Auckland Council
- Copy:** Tracey Grant – Principal Project Lead, Premium Resource Consents Unit
Resource Consents Department, Auckland Council
- From:** Peter Kensington – Consultant Specialist Landscape Architect
Kensington Planning and Landscape Consultants Limited
- Re:** Technical review of an application by Panuku Development Auckland (“**Panuku**”) for resource consents to authorise the construction, occupation, use and maintenance of permanent and temporary infrastructure and undertaking of activities within the coastal marine area and on land, associated with the America’s Cup (BUN60318372)

LANDSCAPE (INCLUDING NATURAL CHARACTER) AND VISUAL EFFECTS

Dear Nicola

Introduction

1. This memo has been prepared in response to the briefing emails from Tracey Grant dated 13, 14 and 20 April 2018, which requested my technical review of the above application from a landscape and visual effects perspective. I understand that this memo, alongside those from other council technical specialists, will assist with your planning recommendation report in response to the application.
2. On that basis, please find set out below my technical review of the application in terms of landscape (including natural character) and visual effects.

Executive summary

3. In my opinion, the application contains a comprehensive assessment of landscape and visual effects that is proportionate to the scale of effects that may arise from the proposal being assessed under the application for resource consents. While I have some slight differences of opinion around the scale of visual effects that may arise, I generally agree with findings of the applicant’s assessment of landscape and visual effects and conclude that, in my opinion, the proposal will be acceptable from a landscape and visual effects perspective.



4. The following text from the Executive Summary¹ of the applicant's Landscape and Visual Effects Assessment (April 2018), prepared by John Goodwin at Boffa Miskell, provides a useful snapshot of the key landscape (including natural character) and visual effects issues associated with the proposal:

*"In terms of **natural character**, the Wynyard Hobson proposal will have very low adverse effects on the abiotic and biotic level of naturalness due to the highly modified nature of the marine environment. In relation to the perceived level of naturalness there would be a Low adverse effect within the Freemans Bay area associated with the 74m wharf extension and Base B (temporary) building..."*

*In terms of **landscape effects** resulting from the proposal there would be Low to Very Low adverse effects on the landscape features within Freemans Bay, Viaduct Harbour and Wynyard Wharf south water space; up to a Moderate-High beneficial effect on the recreational values of Viaduct Harbour and Wynyard Wharf south associated with the Cup activities; Low adverse effects upon the wider character of the Waitematā Harbour during the period the bases and buildings are in place; and Very Low adverse effects in relation to the landscape character of the City Centre..."*

*During construction, from public view locations it is likely the **visual amenity effects** would range from moderate to low adverse, for those who associate the activity with the intrusion into Freemans Bay and the perceived partial "loss" of views to the Waitematā Harbour, North Shore and landform features beyond, to beneficial for those who positively associate the activity with the upcoming AC36 event. During the event, it is more likely that when viewed from these public viewpoints the visual effects would be considered beneficial due to the interest in the event, association with the competition yachts and participants, and event atmosphere..."*

Following the AC36 event and between any subsequent events these positive perceptions would likely wane due to the reduced activity associated with the bases; and then become more Neutral once the buildings on Bases B-G are removed and the more open views to the north are re-established from the main east west promenade. With the permanent additional wharf area catering for other events and public access, after the 10 year consent period it is envisioned that the visual amenity effects overall would be no more than Low adverse, assuming that appropriate legacy solutions are provided for this large permanent wharf space..."

From private viewing locations, it is more likely that some residents may consider the visual effects to be adverse, particularly during the construction period and from locations where there is currently an outward view to the water and land beyond (e.g. the north-western end of The Point Apartments, the north-eastern end of the Lighter Quay apartments, and apartments along the western side of Shed 23 and 24 on Princes Wharf), although these are considered to be no more than Moderate-Low [adverse]. However, these locations would also provide vantage points to view the Event activities and this would be seen as a positive visual outcome for those interested in the event. Following removal of the cup bases any adverse visual effects from the private residential locations are considered to be generally Very Low and no greater than Moderate-Low from some Princes wharf apartments who would look directly down on to the Hobson Wharf extension..."

*...the Wynyard Hobson proposal will be **consistent with the relevant statutory provisions** in relation to natural character of the coastal environment, and landscape character of the Viaduct and Wynyard Precincts, and the City Centre Zone..."*

(my emphasis)

¹ Section 1.0 pages 1-2



5. I have taken into account the relevant matters raised through submissions on the application² which raise the following relevant landscape and visual effects issues:
- a. View obstruction from the proposed extension to Hobson Wharf with associated buildings, structures and yard area for Base B, when viewed from private Princes Wharf residential apartments and from commercial premises;
 - b. In-principle opposition to further encroachment into the harbour with additional wharf space from the proposed extension to Hobson Wharf, with associated buildings, structures and yard areas for Base B;
 - c. Suggestion for the provision of bunting, flags and lighting on the Viaduct Events Centre to celebrate “party central” during the AC36 event;
 - d. Confirmation that legacy solutions will be provided for and realised by the creation of public open spaces that are of a quality and character to match existing successful public open spaces within the wider area;
 - e. Allow for flexibility of base building design within the approval;
 - f. Provide for a cultural design response;
 - g. Consideration of the loss of amenity (outlook / view) from North Wharf as a result of providing for super yachts, breakwaters and safety barriers; and
 - h. Ensure construction management plans provide measures that avoid and mitigate adverse visual amenity effects associated with construction activity.
6. In my opinion, many of the issues raised through submissions have the ability to be addressed through discussion between the applicant and submitters and through the management plan process. There are however some issues which have been raised in relation to visual effects, which would benefit from a brief response (see paragraph 40 onwards below).

Terms of reference

7. As you are aware, during November 2017 through to March 2018, I was involved with providing technical landscape and visual effects advice to the Council when reviewing an earlier proposal from Panuku for the America’s Cup. This involvement was initially during the resource consents department’s pre-application meeting process and then once applications for resource consents had been lodged³.
8. During the above processes, I engaged with Panuku’s technical landscape architectural, urban design and planning experts early-on to discuss and agree basic parameters of the relevant technical assessments that would accompany the formal application(s) for resource consent.

² As per the copies of submissions provided to me on 30 May 2018

³ The America’s Cup infrastructure and event (“AC36”) BUN60313877 application, which was subsequently withdrawn, and the Ferry and Fishing Industry Relocation Facility (“FFIRF”) BUN60313923 application, which has been placed on hold.



9. A similar pre-application meeting process to that described above has occurred in relation to this application. The pre-application meeting process provided me with an opportunity to undertake an initial review of a draft Landscape and Visual Effects Assessment which had been prepared by Mr Goodwin. As part of that initial review, I visited the site and surrounding areas (including viewing the site from water-based viewpoints) and I engaged with Mr Goodwin to, for example, refine locations for representative viewpoint analysis and I also viewed early draft supporting graphic material which accompanied his draft report.
10. Following lodgement of the application, my technical review has concentrated on reviewing the material provided within the following application documents:
 - UNIO Environmental, Application for Resource Consent and Assessment of Environmental Effects (“**AEE**”), America’s Cup Wynyard Hobson (April 2018, Application Document 4)
 - Boffa Miskell, Landscape and Visual Effects Assessment (April 2018, Application Document 11)
 - McIndoe Urban, Urban Design Report (April 2018, Application Document 12)
 - Moller Architects, Architectural Design Statement (April 2018, Application Document 10)
 - Boffa Miskell, Urban Design, Landscape and Planning Figures (April 2018, Application Documents DS1 to DS3 respectively)
 - Part 1 - Urban Design Assessment Figures
 - Part 2 - Landscape and Visual Assessment Plans and Visual Simulations
 - Part 3 - Planning Maps
 - Moller Architects, Architectural Drawing Set, Parts A and B (April 2018, Application Document DS4)
 - Beca, Engineering Concept Drawings (April 2018, Application Document DS5)
 - McIndoe Urban, Unio Environmental and Boffa Miskell, America’s Cup Wynyard Hobson, Building and Public Space Design Guidelines (10 April 2018, Application Document 13)
 - Golder Associates, Assessment of Coastal Environmental Effects (April 2018, Application Document 17)
 - Arbor Connect, Aboricultural Assessment Report (April 2018, Application Document 18)
 - America’s Cup Wynyard Hobson: Legacy benefits for Auckland (20-page report, unauthored [understood to be a Panuku document], undated, Application Document 30)
 - UNIO Environmental, America’s Cup Wynyard Hobson, Applicant’s Proposed Draft Consent Conditions (13 April 2018, Application Document 7).
11. I am generally familiar with the location of the proposal and confirm that, in addition to my visits to the site and surrounding area undertaken as part of the pre-application process, I have visited the site again following lodgement of the application. In



addition, I visited the site and surrounding area three times during the Volvo Ocean Race stopover in Auckland from 24 February to 18 March 2018. I have also visited the site again following the close of submissions in order to appreciate the potential extent of change, particularly from viewpoints on Princes Wharf and North Wharf.

Technical report reviewed

12. While I have reviewed all of the information set out under paragraph 10 above, my technical review focusses on an audit of the applicant's Landscape and Visual Effects Assessment (April 2018), prepared by Mr Goodwin at Boffa Miskell ("**the Boffa Miskell Assessment**"), this being within the area of my expertise.
13. In my opinion, the Boffa Miskell Assessment has been prepared in accordance with current industry best practice for the assessment of landscape and visual effects, as stated under sections 2.3 (Assessment Methodology), 4.1 (Visibility Analysis) and 9.1 (Method) of Mr Goodwin's report.
14. The Boffa Miskell Assessment provides an accurate description of the existing landscape, natural and visual character of the site and the site's context, as well as an accurate description of the proposal being assessed, including construction related effects, effects during the America's Cup 'event(s)' and post-event 'legacy' effects. In addition, the Boffa Miskell Assessment comments⁴ on: the creation of new public access and viewing locations that will result from the proposal; and the design elements, features and mitigation measures of the proposed buildings and open spaces, the new wharf structures and indicative lighting design.
15. The Boffa Miskell Assessment report text is accompanied by a comprehensive suite of supporting graphic material, including fifteen visual simulations of the proposal (in event and legacy modes) from representative public and private viewpoints.
16. I agree that the Boffa Miskell Assessment has utilised an appropriate seven-point effects rating scale⁵ and I have adopted the same scale when undertaking my technical review. The "*Auckland Council - Information requirements for the assessment of landscape and visual effects*"⁶ also recommends that assessments utilise a seven-point effects rating scale. In addition, I agree with Mr Goodwin that landscape and visual effects can be adverse, neutral or beneficial⁷.
17. A key aspect of the application, in terms of assessing the landscape and visual effects of the proposal, are the proposed 'Building and Public Space Design Guidelines' ("**Guidelines**")⁸. While indicative designs for the base buildings (by Moller Architects) have been provided as part of the application, the applicant has also suggested draft consent conditions (see proposed conditions 23 and 24) which provide for some flexibility in the final design of these buildings, as long as this is undertaken in accordance with the proposed Guidelines. I agree that the conditions (subject to some amendments) and the proposed Guidelines are a logical and useful

⁴ At sections 6.5-6.6

⁵ Refer table 1 under section 2.3

⁶ September 2017 www.aucklanddesignmanual.co.nz/resources/tools#/resources/tools/landscapeandvisualeffectsassessment

⁷ Refer table 2 under section 2.3

⁸ Refer discussion under section 6.6.1 on pages 29-30 of the Boffa Miskell Assessment



mechanism to assist with the avoidance and mitigation of adverse landscape and visual effects.

Statutory context

18. The relevant statutory context has been comprehensively set out in the UNIO Environmental AEE and in the Boffa Miskell Assessment. I do not intend to repeat this information and will use the statutory context that has been provided within these documents as the basis for my review.
19. In particular, I have concentrated on reviewing the proposal against the relevant Auckland Unitary Plan (Operative in part) ("**AUP**") assessment criteria, which have been set out within Appendix 1 of the Boffa Miskell Assessment. In addition, my review has been made with an awareness of the relevant statutory policy framework, as summarised by the Boffa Miskell Assessment⁹.

My review of the proposals

Natural character effects

20. I agree with the Boffa Miskell Assessment's description of the existing natural character values¹⁰ for this area and concur that the area surrounding Freemans Bay and the central part of the Waitematā Harbour does not contain any identified High or Outstanding Natural Character areas.
21. I also agree with the Boffa Miskell Assessment finding¹¹ that the proposed wharf extension, breakwaters and buildings associated with the proposal within Freemans Bay and surrounding waters would have:

*"**Very Low adverse effects** upon the actual (abiotic and biotic) level of naturalness [area] as a result of the introduction of new wharf and breakwater piles, and associated wave panels and pontoons, and the change in water movements through the Freemans Bay and Wynyard Wharf south water space; and*

***Low adverse effects** on the perceived level of naturalness within Freemans Bay for the duration of the event and following removal of bases B-G."*
22. In my opinion, the key natural character consideration is one that overlaps with landscape and visual effects, being the loss of inner harbour water space, a matter which I discuss at paragraph 33 under visual amenity effects, given the overlap between natural character, landscape and visual effects in relation to this issue.

Landscape effects

23. I agree with the Boffa Miskell Assessment's description of the existing landscape context of the Viaduct Harbour / Wynyard Wharf area¹². I also acknowledge the Boffa

⁹ Refer section 5.5 on pages 23-24

¹⁰ Refer section 3.3 on pages 11-12

¹¹ Refer section 7.3 on page 34

¹² Refer section 3.2 on pages 6-11



Miskell Assessment discussion¹³ which addresses the potential significance of landscape change within the context of this urban coastal environment.

24. Based on the above, I concur with the Boffa Miskell Assessment findings¹⁴ in relation to the landscape effects of the proposal in that the proposed wharf extension, breakwaters and buildings associated with the proposal would have:

*"**Low to Very Low adverse effect** on the landscape features, within Freemans Bay, Viaduct Harbour and Wynyard Wharf area – any effects would result from a small change to the settings of these features;*

*Up to a **Moderate-High beneficial effect** upon the recreational values of Freemans Bay, Viaduct Harbour and Wynyard Precincts, via the introduction of new publicly accessible amenities, and the provision of infrastructure and facilities associated with the America's Cup;*

***Low adverse effects** upon the wider character of Freemans Bay and the Waitematā Harbour; and*

***Very Low adverse effects** in relation to the character of the City centre beyond the Viaduct Harbour Precinct."*

25. As per paragraph 22 above, in my opinion the key issue for consideration is the loss of inner harbour water space, a matter which I discuss at paragraph 33 under visual amenity effects, given the overlap between natural character, landscape and visual effects in relation to this issue.

Visual amenity effects

26. I concur with the visibility analysis undertaken by the Boffa Miskell Assessment¹⁵, the description of existing public views¹⁶, the description of existing private viewing audiences¹⁷ and the analysis of their sensitivity to change (ranging from moderate-high through to very low) depending on the viewer's proximity to the site.
27. I also concur with the Boffa Miskell Assessment's selection of 27 representative public and five representative private viewpoints and the decision to choose 15 of these viewpoints (12 public and three private) as visual simulation images¹⁸.
28. I have reviewed Mr Goodwin's viewpoint assessment¹⁹ and his summary of visual effects from the proposal²⁰. Set out within **Attachment 1** to this memo, for each of the representative viewpoints, I have recorded my own assessment ratings in relation to the scale of visual effects that will result from the proposal. On the whole, I generally concur with Mr Goodwin's findings, however there are a handful of views

¹³ Refer section 8.1 on pages 34-35

¹⁴ Refer section 8.3 on page 37

¹⁵ Refer section 4.1 on pages 12-13

¹⁶ Refer section 4.2 on pages 13-15

¹⁷ Refer section 4.3 on page 15

¹⁸ As per the reasons set out under summary table 3 on page 16

¹⁹ Refer section 9.2 on pages 38-54

²⁰ Refer section 9.3 on pages 55-57



where I find a slightly greater level of adverse visual effects than Mr Goodwin. I have indicated in the table where we agree and disagree.

29. In my opinion, none of these differences in the scale of adverse visual effects between Mr Goodwin and me have any significant bearing on my overall visual effects findings. In that regard, it is important to note that none of the representative viewpoint assessment ratings from either Mr Goodwin or me conclude that "very high" or "high" (i.e. significant) adverse visual effects will result from the proposal.
30. As I have set out in **Attachment 2** to this memo, while the majority of adverse visual effects have been rated as being "moderate-low" (i.e. minor) or less by both Mr Goodwin and me, it is my opinion that there will be "moderate" (i.e. more than minor) adverse effects from one representative private viewpoint²¹ in legacy mode (from "moderate-low" in event mode). I note that this viewpoint is representative of other similar private views that will be obtainable from other apartments within Princes Wharf Shed 23 which have relatively close and elevated views. A similar level of adverse effect may therefore be experienced by people within these apartments.
31. In the case of these "moderate" adverse effects however, in my opinion the adverse visual effects are likely to be acceptable, rather than being significant. For example, while the magnitude of change has been assessed as being high and the sensitivity of the viewing audience may also be high, the resulting visual effects are not significant. In addition, there will be some viewers within these locations who will see the change as being a beneficial (positive) rather than an adverse visual effect.
32. I agree with the Boffa Miskell Assessment, where Mr Goodwin states²²:

"In summary and specific to the location of the view, its proximity to the proposal and view relative to the foreground and background elements and features, the following effects are predicted:

- **During Construction** – *While not separately evaluated or rated for each viewpoint it is anticipated that there will be a heightened sense of anticipation associated with the Event and from many public viewing locations there will be significant interest in what is happening. For those people interested in the America's Cup this is likely to translate into **beneficial visual effects**. However, from some public viewing locations, as well as some private residential locations within Princes Wharf, the Quay, The Point and Lighter Quay apartments, where there is a view out across Freemans Bay to the Waitematā Harbour and beyond to the landform features (which may include Rangitoto), it is expected that the progressive obscuring of the view will result in **adverse visual effects**. This is an anticipated consequence of any construction activity on Halsey Wharf and the Hobson Wharf extension and given the modified and active location within which the Wynyard Hobson proposal is to be located, the ability to obtain views to the north across the harbour from other nearby public locations, and the retention of the majority of the view from private locations, these effects are considered to be generally no more than a **Low to Moderate adverse level**.*
- **During Events** – *It is anticipated that once the bases are all complete (with the livery signage and public amenities in place) and once the on-water training and regattas have begun, most of the public viewing locations around the Viaduct Harbour, Princes Wharf and North Wharf areas will become key vantage points from which to watch the*

²¹ Viewpoint P1 – Princes Wharf Shed 23, Level 5, Apartment 63

²² Refer discussion set out after table 4 in section 9.3 on page 56-57



activities. For people who have some interest in the cup it is considered that the event will generate positive visual effects and from key vantage points these will result in a **Moderate beneficial effect**. From the nearby residential apartments, it is expected there will be a range of visual effects, however due to the change to some resident's current view and outlook to the harbour water, it is considered that the proposal would generate up to **Moderate-Low adverse effects** from a few locations. However, the level of adverse effects from the majority of residential locations surrounding the Viaduct Harbour would be **Low to Very Low** as the majority of the unencumbered view across the Waitemata Harbour to the north shore will not be affected.

- **Post Event** – Once the AC36 event is over there are two potential scenarios. If ETNZ retain the America's Cup it is likely that there will be another event within 3 to 4 years and while some of the major syndicates may stay within their bases and continue to develop and train, many are likely to return home until just prior to the next event or, not put forward a challenge. In any event it is likely that some and possibly many of the bases would either be temporarily re-purposed for other activities or not be utilised between events. Should ETNZ lose the Cup it is likely that the next event could be in another country and while they may decide to challenge and could win the Cup back there is likely to be a period of some years before the bases would be required again. Under these scenarios the level of activity within and around the bases and harbour/basins would reduce. Although this would not change the physical character of the area the beneficial visual amenity effects associated with the America's Cup would likely be reduced.

- **Post Consent** - The consent is for 10 years with Bases B-G to be removed upon expiry of the consent. This will result in a larger area of deck space on the Hobson Wharf extension which will be public open space and can be utilised for a range of existing and new events as well as passive recreation. The ongoing use and character of this large wharf space will be a key determinant of the long term visual effects on views to this area, particularly from elevated views on the western side of Princes Wharf. With an appropriate use and character on the wharf the majority of the views out from the key public walkway and private viewing locations will be largely returned to their previous character and it is considered that generally the visual effects will in the long term be no more than **Moderate-Low adverse**, from some elevated nearby residential viewing locations on Princes Wharf, and **Low adverse to Neutral** from other private and public locations. The removal of Bases C-G will enable the development of Wynyard Point and the Headland Park to be advanced resulting in additional public open space in the area and further enhancement.

Taking in to account the individual viewpoint effects assessment ratings, and with an understanding of the activities, context and view opportunities within the Viaduct Harbour and Wynyard Precincts, the overall visual effects are considered to be less than minor, apart from specific viewpoints within the Princes Wharf apartments where the event related and ongoing adverse visual effects are assessed to be minor."

33. Building upon the above conclusions, in my opinion, the key visual effects considerations in respect of the proposal relate to the following five factors:
- a. Loss of inner harbour water space (from the proposed extension to Hobson Wharf with associated base building, structures and yard area);
 - b. Additional built features (breakwaters) between Wynyard and Halsey Street Extension wharves, which will enclose an area of open water space;
 - c. Tidal differences (noting tide level in photographs);



- d. View blockage from super yachts on Wynyard Wharf during the event(s); and
 - e. The large expanse of Hobson Wharf area that will remain in legacy mode.
34. Having read the Boffa Miskell Assessment and the relevant submissions, I conclude that the visual effects of the proposal will be appropriate for the following reasons:
- a. The site is a part of a visually complex waterfront environment that contains many built elements, including private and public buildings, structures, open space, water related infrastructure and vessels of varying type.
 - b. The area is not static and there are lots of comings and goings, but at a different 'pace' from that of the water space to the east of Princes Wharf, for example, which has the more utility function of the downtown ferry terminal area, or the Westhaven marina and refuelling access area to the west. Elements such as the Viaduct Harbour lifting bridge also add to the visually dynamic nature of the area.
 - c. The sun angle, time of day, tide and sea state are all factors that influence views both to and from the water.
 - d. When viewing from the water, the land and associated built components have a two-dimensional aspect and the depth of view which is experienced at closer land-based views is lost (including much of the detail in a view).
 - e. The open nature of the water space that is generally located to the north of Halsey Street Wharf Extension, between Wynyard and Princes wharves is an important element in the foreground of existing land-based views, acting, in my mind, as a transitional space between the more enclosed inner viaduct areas of water space and the outer area of the main Waitematā channel. Once this transitional area of water space is lost or diminished in size, the space would only be able to be reinstated by decommissioning and removing the wharf structures, which is not part of this proposal.
 - f. The location of the Hobson Wharf extension in a visually discrete position that enables expansion without resulting in adverse visual effects.
 - g. The positioning of new base buildings (temporary) in locations where they will not block any significant views nor result in existing views being compromised to any significant level.
35. As Mr Goodwin notes in his assessment²³ however, in legacy mode once the Base B building has been removed, the Hobson Wharf extension will be a relatively large area of wharf space. I agree with Mr Goodwin and Ms Skidmore (the council's urban design peer reviewer)²⁴ that it will be important to provide appropriate legacy solutions for this large permanent wharf space.
36. In my opinion, many of the landscape and visual effects related issues which have been raised through submissions, have the ability to be addressed through discussion

²³ In the Executive Summary, page 2, last sentence of paragraph 2

²⁴ In paragraph 4.29 of Ms Skidmore's report



between the applicant and submitters and through the management plan process. There are however some issues which have been raised in relation to visual effects that I have considered (refer to paragraph 40 onwards below).

Consistency with relevant statutory provisions

37. Section 10 of the Boffa Miskell Assessment responds to the relevant statutory provisions (identified earlier in section 5) that relate to: natural character and landscape; open space, recreation / public access and amenity; building location, scale and design; and views. The Boffa Miskell Assessment concludes that "*...the proposal will meet the statutory provisions in relation to the natural character of the coastal environment, landscape character of the Viaduct and Wynyard Precincts, and the City Centre; and will in the long term maintain and enhance the visual amenity values of the area.*"²⁵
38. I concur with Mr Goodwin's analysis and, in my opinion, note that the proposal:
- a. Avoids adverse effects on Outstanding Natural Character Areas and Outstanding Natural Features (as there are none in the site area) and there is accordingly no issue with objectives B8.2.1 and F2.16.2(3) of the AUP;
 - b. Is appropriate given the low levels of existing natural character value and there is accordingly no issue with policies B8.2.2(4), B8.3.2(2)(a) and F2.16.3(8)(c) and F2.16.3(11) of the AUP;
 - c. Provides for continued and new public access to the coastal environment and there is accordingly no issue with objectives B8.4.1(1) and B8.4.1(3) and policy B8.4.2(2)(a)-(b) of the AUP;
 - d. Will generate both adverse and positive visual amenity effects, which on balance will be appropriate and not result in significant adverse effects and there is accordingly no issue with: policies F2.16.3(7)(d)-(e), F2.16.3(8) and F2.16.3(11); with objective H8.2(9) and policies H8.3(5) and H8.3(30); objectives I211.2(1), (2), (4) and (5) and policy I211.3(4); and objective I214.2(2) and policies I214.3(1)-(3) of the AUP;
 - e. Results in the appropriate location, scale and design of new buildings and the provision of public open space through compliance with the proposed 'Building and Public Space Design Guidelines' and there is accordingly no issue with: the objectives and policies of the AUP set out above under (d); and
 - f. Will not impact on the identified AUP viewshafts, being: the Regionally Significant Viewshaft from the North Shore to Mount Eden / Maungawhau (E10); the coastal viewshafts and the viewshafts associated with pedestrian accessways in the Viaduct Harbour Precinct²⁶; and the significant public views (from Nelson Street and Fanshawe Street) in the City Centre zone. As such I agree with Mr Goodwin that "*...the significant public views from the city to the*

²⁵ Refer section 10.5 on page 59

²⁶ Noting that PC4 to the AUP introduces a correction which re-introduces a viewshaft - as discussed within section 9.3 (page 99) of the Unio Environmental AEE and illustrated on Figure 16 of application document DS3



harbour and beyond will overall be maintained and enhanced..."²⁷. As discussed in the Boffa Miskell Assessment²⁸, I agree that these provisions are somewhat 'future state' and provide for longer-term redevelopment of the wider Wynyard Precinct rather than applying to the land use that exists today. Accordingly, there is no issue with policy I211.3(10), objective I214(2)(3)(b) and policy I214(3)(4) of the AUP.

39. Overall, I agree with Mr Goodwin that the proposal will meet and be consistent with the relevant statutory provisions in relation to the natural character of the coastal environment, the landscape character of the AUP Viaduct and Wynyard Precincts and the Business – City Centre Zone and will, in the long-term, maintain and enhance the visual amenity values of the waterfront area.

Review of submissions

40. A total of 83 submissions (including two late submissions) have been made in response to the publicly notified application. I have reviewed all of these submissions, noting:

- 33 submissions in opposition;
- 34 submissions in support;
- 11 submissions in conditional support; and
- 5 neutral submissions.

41. In reviewing all of the submissions, I have concentrated on those submissions that raise natural character, landscape and visual effects issues. In response to these issues, I provide the following initial comments (grouped under issue headings), noting that further details regarding each submission are likely to emerge during the preparation of evidence for the Environment Court through the direct referral process.

A. *Hobson Wharf Extension - PRINCES WHARF SUBMITTERS*

- i. Dr Jeremy Stevens (submitter #1)
Owner/occupier of Shed 24 Princes Wharf
 - This submitter raises the issue of view obstruction from the proposed extension to Hobson Wharf and suggests that a smaller extension would be preferred with lower buildings. The submitter's opinion is that the current proposal will obstruct views and become an eyesore for residents, businesses and visitors and tourists that view the wharf extension and associated base from Princes Wharf.
- ii. a. Frances Stead (submitter #29) and Russell Hall (submitter #30)
Owners/occupiers of 5B/124 Customs Street West
 - b. Elizabeth Greive (submitter #31)

²⁷ Refer Boffa Miskell Assessment, last paragraph section 10.4, page 59

²⁸ Ibid, third paragraph section 10.4, page 58



Owner/occupier of 4A/120 Customs Street West

- c. Gavin Webber (submitter #35)
Owner/occupier of 3A/120 Customs Street West
- d. Brett MacLean (submitter #53)
Owner/occupier of 3B/124 Customs Street West
- e. John Mandeno (submitter #60)
Owner/occupier of 5A/124 Customs Street West
- f. Brent Impey (submitter #61)
Owner/occupier of 3B/120 Customs Street West
- g. William Strowger and Shelley Hodge (submitter #68)
Owner/occupier of 3A/128 Customs Street West
- h. Peter Lawn (submitter #83)
Owner/occupier of 2A/124 Customs Street West

- These submitters provide conditional support for or oppose the proposal, however suggest that, in order to avoid unnecessary costs and visual pollution from industrial scale sheds, that the Hobson Wharf Extension and associated base facilities should only proceed if all of the Wynyard Point bases are accounted for. In addition, the submitter suggests that timeframes should be limited (to just provide for the 2021 event) and that, if Base B is constructed, the structure should be demolished immediately following the event.

Response: I acknowledge that there will be a visual change and loss of water space within views from these locations (noting that I have not visited any private properties to experience the existing outlook), however, from a landscape and visual effects perspective, following my assessment of the information provided with the application, including the applicant's representative private viewpoint analysis, in my opinion the proposal will bring an acceptable outcome.

B. Hobson Wharf Extension (and reclamation) - GENERAL SUBMITTERS

- i. Coralie van Camp (submitter #4)
 - This submitter is opposed to the extension of Hobson Wharf however no details are provided to elaborate on the submitter's reasons.
- ii. David and Diana Daniel (submitter #14)
 - These submitters are opposed to any further reclamation or construction of structures into the harbour, however no details are provided to elaborate on the submitters' reasons.



- iii. Noelene Buckland (submitter #15)
Auckland City Centre Residents' Group
- This submitter supports the proposal but suggests that consent should only be granted for a five-year duration (rather than the ten-years sought) with a further five-year option if determined to be necessary at the end of the first five years. The submitter also suggests that a better option than extending Hobson Wharf might be to fill in the area to the west of Hobson Wharf.
- iv. Charlotte Fisher (submitter #20)
- This submitter opposes the taking of public land and sea for the purpose of building large structures which will destroy visual amenity, including through the provision of advertising (with this aspect being underplayed in the applicant's visual simulations). The submitter also raises the issue of view blockage from North Wharf by super yachts. Additionally, the submitter suggests that through this application, the Council should prioritise the implementation of a public park on the tank farm peninsula.
- v. Geraldine Speed (submitter #22) and Stewart Speed (submitter #23)
- These submitters provide conditional support for the proposal, however suggest that, in order to avoid unnecessary costs and visual pollution from industrial scale sheds, that the Hobson Wharf Extension and associated base facilities should only proceed if all of the Wynyard Point bases are accounted for. In addition, the submitter suggests that timeframes should be limited (to just provide for the 2021 event) and that, if Base B is constructed, the structure should be demolished immediately following the event.
- v. Viaduct Harbour Holdings Limited (submitter #33)
- This submitter opposes the size of the proposed extension to Hobson Wharf and suggests reducing this by 10.0m in order to mitigate visual and physical intrusion into the harbour. The submitter also suggests that the proposed building for Base B should be moved closer to the existing Maritime Museum building in order to mitigate adverse visual and urban design effects. Additionally, the submitter suggests that the proposed design flexibility conditions²⁹ should be deleted, with any changed designs being subject to new applications for resource consent.
- vi. The Point Body Corporate 199318 (submitter #39)
- This submitter is in general support of the proposal, but suggests that a plan change is required in order to provide for certainty of the statutory provisions that apply to the area of new wharf space that

²⁹ Applicant's proposed conditions 23 and 24



will be created by the proposed extension to Hobson Wharf. For example, the submitter suggests that statutory viewshafts and a 5.0m maximum height limit should apply for this space. In addition, this submitter (like others) suggests that the extension to Hobson Wharf should not occur if there is space to accommodate all challengers within the space provided for on Wynyard Wharf and that a ten-year consent duration is excessive.

vii. Lighter Quay Body Corporates (submitter #70)

- This submitter is in general support of the proposal, but suggests that the proposed extension to Hobson Wharf will generate significant long-term effects on the coastal character of the harbour and local views. As an alternative, the submitter proposes that it would be more appropriate to intensify existing areas of reclamation or wharf space and suggests (as others have) that the extension to Hobson Wharf should not occur if there is space to accommodate all challengers within the space provided for on Wynyard Wharf and that a ten-year consent duration is excessive.

viii. St Mary's Bay Association Incorporated (submitter #82)

- This submitter is in support of the proposal, conditional on minimising the height and bulk of proposed temporary buildings as much as possible so as to not unreasonably affect public views of the harbour. Additionally, the submitter seeks that all temporary buildings are removed as soon as possible after the event and earmark the land for public open space.

Response: I acknowledge in principle opposition to further harbour intrusion and the ten-year duration and agree that other options may be available, however, in assessing the proposal that forms part of the application under the current statutory provisions that apply to the site, from a landscape and visual effects perspective, the proposal will bring an acceptable outcome. I also acknowledge that the proposed design review conditions could be strengthened, as I have suggested, in order to ensure more certainty of outcome.

C. Flags on the Viaduct Events Centre

i. Barry Jeffery (submitter #13)

- This submitter suggests that resource consent permit the decoration of the Viaduct Events Centre with bunting, flags (on 3.0m high poles) and lighting to acknowledge and celebrate "party central".

Response: I agree that flags and bunting will add to the festive atmosphere of the proposal. I note further that the AUP definition of 'Height' for the purpose of buildings in all zones, excludes flagpoles, masts, lighting poles, aerials or antennas that do not exceed: one third of the maximum permitted activity height for the site; or 300mm in diameter; or the footprint of the building. As such, I suggest that well designed and located flags and bunting on the Viaduct



Events Centre building is likely permitted. In relation to lighting effects, I understand that Glen Wright is providing specialist lighting comment for the Council in response to this submission.

D. Ensure legacy solutions

- i. Mik Smellie (submitter #17)
SPLICE – Courage Compassion Community
 - This submitter supports the proposal however seeks that any approval be conditional on: enhancing public access; providing legacy open space; bringing back the fishing fleet after the event; and providing for the green passage between Victoria Park and the future headland park, as signalled in the AUP.
- ii. Richard Cobb (submitter #24)
 - This submitter supports the proposal however seeks that any approval be conditional on having legal mechanisms in place to ensure the protection of spaces created for use a future open space.
- iii. Heart of the City (submitter #59)
 - This submitter supports the proposal however seeks the preparation of an Event Legacy Plan which sets out legacy outcomes that provide for public views and guidelines for the creation of public open space.
- iv.
 - a. KPMG Property NZ Limited (submitter #72)
 - b. Kensington Swan (submitter #73)
 - c. Auckland Theatre Company (submitter #74)
 - d. ASB Bank Limited (submitter #78)
 - These submitters provide conditional support for the proposal, subject to (alongside transportation related matters) confirmation that the proposal will deliver quality design of legacy infrastructure.

Response: In my opinion, the proposal will provide for an appropriate legacy outcome following the event (through compliance with the Guidelines for the design of public open space, for example) and that the proposal will not put in place any permanent impediments to achieving long-term plans for the area. I agree that legal mechanisms should be imposed to ensure public open space provision is achieved in the long term following the event.

E. Allow flexibility for base building design

- i. Auckland Yacht and Boating Association (submitter #34)
 - This submitter supports the proposal and suggests that the approval should allow for flexibility in the design envelope of base buildings to allow for innovative and function designs of syndicate bases.



- ii. a. Emirates Team New Zealand Limited (submitter #75)
- b. America's Cup Event Limited (submitter #76)
- c. Royal New Zealand Yacht Squadron (submitter #77)
- d. Challenger of Record America's Cup 36 (submitter #80)
- These submitters support the proposal however suggest that the approval should allow for flexibility in the Guidelines to allow for base designs that might be different to those that currently form part of the application material.

Response: In my opinion, the proposed design review conditions (23 and 24) do provide for some flexibility that allows for innovative syndicate base designs which are different to those that form part of the current application. I also acknowledge however that a balance is required which allows for design flexibility but also provides certainty of outcome for the public.

F. Cultural design response

- i. Ngāti Whātua Ōrākei (submitter #40)
 - This submitter (amongst others) raises the issue of the proposal resulting in unavoidable adverse cumulative adverse effects on the mauri of the Waitematā. In response, the submitter suggests that, in order to offset these effects, cultural design should be incorporated into the base buildings and open spaces and that consideration should be given to a Maori Cultural Centre.

Response: I support the intent of the submission and suggest that the applicant engage with the submitter to agree how the outcomes sought might be included in the proposal, which I suggest is likely to be best achieved through the design of public open space elements, rather than the syndicate base buildings.

G. Loss of amenity (outlook / view) from North Wharf

- i. a. Jack Tar (submitter #42)
34-47 Jellicoe Street
- b. The Conservatory (submitter #43)
1-17 Jellicoe Street
- c. Rushworth Cafe (submitter #67)
1-17 Jellicoe Street
- These submitters raise concerns around the loss of amenity (outlook / view) from North Wharf as a result of the proposal providing for super yachts, breakwaters and safety from fall fences / balustrades.

Response: I agree that the outlook from North Wharf will change as a result of the proposal, however this change will not be adverse in my opinion because the new elements in the view (safety from fall balustrades, breakwaters and



super yachts) are all expected in this environment and the overall level of visual amenity experienced from North Wharf will remain unchanged.

H. Loss of amenity (visual and urban design) in vicinity of ASB Building

i. Kiwi Property Group Limited (submitter #71)

- This submitter provides support to the proposal conditional on (amongst other matters) involvement in the construction management plan process to ensure that adverse construction related effects on amenity (visual and urban design) for people in the vicinity of the ASB Building can be managed appropriately.

Response: I suspect, without understanding further reasoning from the submitter, that the submitter's concerns relate to the potential adverse visual effects that may arise from construction activities, which if left to proceed with no controls around temporary screening (through construction hoarding and/or barriers), would likely result in adverse effects for people that use the areas of high public amenity on site. I agree with the concerns of the submitter and suggest that the construction management plan should address ways in which adverse visual amenity effects can be avoided and mitigated.

Recommendations

42. Following my review of the relevant information submitted with the application and my review of the relevant submissions that have been made on the application, it is my opinion that there are no impediments or fatal flaws from a landscape, natural character and visual effects perspective to suggest to me that resource consent should be refused for the proposal. I acknowledge that further engagement between the applicant and submitters may be beneficial in order to narrow issues and, in some cases, possibly reach agreement around design changes or conditions of consent.
43. Taking into account the above, I recommend that, from my perspective, resource consents can be granted subject to appropriate and enforceable conditions.
44. I understand and can appreciate the concerns raised by certain submitters in relation to the loss of Waitematā Harbour water space in order to provide new wharf space that will accommodate one of the base buildings, yard and associated structures, while providing new and enhancing existing public access and spaces.
45. However, in my opinion, the proposal overall achieves a positive outcome that will result in an appropriate balance between built/unbuilt elements and private/public space that will provide for the effective use of the site for hosting an important global event. The site is in a logical location on the Auckland waterfront which will provide the arena for hosting of an event that brings a positive 'vibe' and ultimately contributes positively to the legacy of urban regeneration in this part of the city, building on earlier successful developments.
46. In my opinion, the area and facilities that will be created through the proposal will provide a positive legacy for the city by providing buildings, structures and open



spaces that can host future events in tandem with the Viaduct Events Centre and other facilities that have emerged and will continue to emerge in this part of the city.

47. I do however recommend that appropriate legacy solutions be agreed for the use of the large area that will be created by the Hobson Wharf extension, in legacy mode once the Base B building, structures and yard area have been removed.
48. In addition, I hold some concern over the proposal to locate large super yachts immediately adjacent North Wharf for long periods of time during the event. The representative viewpoints VP12 and VP13 illustrate how the existing view of an enclosed water space and beyond to other built and natural features in the landscape might be lost, albeit temporarily. I acknowledge that it is a permitted activity to moor boats in this location, however, I am of the opinion that at least minor adverse visual effects (in terms of view blockage towards the enclosed water space and beyond), particularly at high tide, will result for some viewers on North Wharf. I suggest that there be an area adjacent to north wharf (in the centre, for example)³⁰ that has a restriction on the berthing of super yachts for long periods of time during the event, to avoid adverse effects on the amenity value of users of North Wharf.
49. I therefore recommend that:
 - i. In order to avoid adverse visual effects for viewers of the Hobson Wharf extension in legacy mode, a condition of resource consent be imposed that requires the consent holder to submit for approval details concerning the ongoing use of the Hobson Wharf extension following the removal of Base B (I note that the set of conditions attached to Ms Broadbent's report includes an appropriate condition: condition 7B(d)); and
 - ii. In order to minimise adverse visual effects for viewers on North Wharf during event mode, a condition be imposed restricting the mooring of super yachts to the berthage areas shown on Figure 20 in Application Document DS1 (I also note that the amended version of condition 13 on the set of conditions attached to Ms Broadbent's report captures this).

Suggested amendments to the applicant's proposed conditions of consent

50. The applicant has helpfully included a suite of proposed conditions of consent for the proposal³¹. Proposed pre-construction conditions 23, 24 and 25 have been suggested by the applicant as a means of ensuring that the design and construction of base buildings, structures and yards and of public spaces, will be in accordance with the architectural drawings submitted with the application and with the "Building and Public Space Design Guidelines", dated 10 April 2018. The applicant's proposed conditions also provide for flexibility in the design of base buildings, structures and yards, as long as certain parameters are met to the satisfaction of the Council.
51. I am comfortable with the intent of the applicant's proposed conditions of consent; however, I suggest (as set out in **Attachment 3** to this memo) that the wording of

³⁰ As illustrated on the McIndoeUrban and Boffa Miskell Figure 20 in Application Document DS1 and which would require and amendment to the Beca drawing 3233847-CA-4101 Rev B in Application Document DS5

³¹ Refer 'Document 7' which accompanies the application Assessment of Environmental Effects



conditions 23 and 24 could be strengthened to ensure a robust outcome. I record that I have read Ms Skidmore's proposed amendments to condition 25 and new condition 25A and confirm that I support those proposals.

52. Following a meeting with the applicant's experts on 8 June 2018 where the issue at paragraph 49(i) above was raised, the applicant subsequently provided³² additional proposed conditions of consent for consideration. These suggestions included conditions that required the provision of a 'Hobson Wharf Activation Plan' prior to the removal of the syndicate base B and a new condition to provide a framework for any building to replace Base B building. I share Ms Skidmore's view that these additional proposed conditions are not helpful and I also prefer the suggested conditions included in Ms Broadbent's report around removal of structures/reinstatement (Conditions 6, 6A, 7, 7A, B and C).

Conclusion

53. In my opinion, the applicant has provided a comprehensive and proportionate assessment of landscape and visual effects, alongside a number of supporting drawings and assessments from architectural and urban design experts, which provide me with comfort that the proposal will result in an acceptable outcome in terms of landscape, natural character and visual amenity effects and that the proposal will be consistent with the relevant statutory direction.
54. I conclude that the proposal will result in:
- a. Very low adverse effects upon the area's existing level of naturalness as a result of the introduction of new wharf and breakwater piles, and associated wave panels and pontoons, and in the change in water movements through the Freemans Bay and Wynyard Wharf south water space;
 - b. Low adverse effects on the perceived level of naturalness within Freemans Bay for the duration of the event and following removal of bases B-G;
 - c. Low adverse effects on the landscape features within Freemans Bay, Viaduct Harbour and Wynyard Wharf area, on the wider urban coastal character of Freemans Bay and the Waitematā Harbour and in relation to the character of the City centre beyond the Viaduct Harbour Precinct;
 - d. Beneficial effects for the recreational values of people in Freemans Bay, Viaduct Harbour and Wynyard Precincts, via the introduction of new publicly accessible spaces and facilities associated with the event; and
 - e. Minor adverse visual effects overall, but with potential for localised more than minor adverse visual effects for viewers at specific viewpoints within the Princes Wharf apartments following the event.
55. I recommend, subject to further information arising through the remainder of the statutory process that might change my opinion and subject to the imposition of appropriate and enforceable conditions, that resource consent can be granted.

³² As received by the Council on 19 June 2018



I trust that the above technical review memo provides you with enough information to enable you to complete your planning report in response to the application.

Please let me know if you require any further technical review information or if you wish to discuss matters further prior to completing your report.

Regards

Peter Kensington

Consultant Specialist Landscape Architect
Registered NZILA and MNZPI

On behalf of:
Auckland Council
Resource Consents Department
Premium Resource Consents Unit

Email: peter@kplc.co.nz

Phone: 027 227 8700

Attachments

Attachment 1

Summary review of Boffa Miskell Assessment viewpoint assessment

Attachment 2

Scale of effects ratings: Boffa Miskell Assessment / Auckland Council

Attachment 3

Suggested changes to the applicant's proposed conditions of consent 23 and 24

Attachment 1

Summary review of Boffa Miskell Assessment viewpoint assessment

For each of the fifteen representative viewpoints assessed in the Boffa Miskell Assessment, both during and following events, the table below sets out:

1. The Boffa Miskell Assessment (John Goodwin) effects ratings
2. Peter Kensington's effects ratings – areas of disagreement between Mr Goodwin and Mr Kensington are underlined.

As per the table in Attachment 2:

- Beneficial, neutral, very low adverse and low adverse effects have been shaded green (being less than minor).
- Moderate-low adverse effects have been shaded orange (being minor).
- Moderate adverse, moderate-high adverse, high adverse and very high adverse (being more than minor) have been shaded red.

Viewpoint	Boffa Miskell Assessment		Kensington Review	
	During Events	Following Events	During Events	Following Events
Viewpoint 2 Waitematā Plaza	Very Low Adverse	Neutral	Very Low Adverse*	Neutral
Viewpoint 3 Princes Wharf NW corner wharf level	Low Adverse	Very Low Adverse	<u>Moderate-Low Adverse*</u>	<u>Low adverse</u>
Viewpoint 4 Princes Wharf NW corner viewing deck	Low Adverse	Low Adverse	<u>Moderate-Low Adverse*</u>	Low adverse
Viewpoint 5 Princes Wharf outside Euro Restaurant	Low Adverse	Very Low Adverse	Low Adverse*	Very Low Adverse
Viewpoint 7 Eastern Viaduct	Low Adverse	Neutral	Low Adverse*	Neutral
Viewpoint 8 Wynyard Crossing Bridge	Moderate-Low Adverse	Very Low Adverse	Moderate-Low Adverse*	Very Low Adverse
Viewpoint 10 Viaduct Events Centre Viewing Deck (NE)	Very Low Adverse	Very Low Adverse	<u>Low Adverse*</u>	Very Low Adverse
Viewpoint 11 Viaduct Events Centre Viewing Deck (NW)	Moderate-Low Beneficial	Neutral	<u>Low Adverse*</u>	<u>Very-Low Adverse</u>



Viewpoint	Boffa Miskell Assessment		Kensington Review	
	During Events	Following Events	During Events	Following Events
Viewpoint 12 Halsey Street / North Wharf Intersection	Low Beneficial	Neutral	<u>Low Adverse*</u>	<u>Very-Low Adverse</u>
Viewpoint 13 North Wharf outside Jack Tar Restaurant	Low Adverse	Low Adverse	<u>Moderate-Low Adverse*</u>	Low Adverse
Viewpoint 14 Lighter Quay walkway West Side (NE cnr)	Low Adverse	Neutral	Low Adverse*	Neutral
Viewpoint 24 Stanley Point Cyril Bassett Lookout	Neutral	Neutral	Neutral	Neutral
Viewpoint P1 Princes Wharf Shed 23 Level 5 Apt 63	Moderate-Low Adverse	Moderate-Low Adverse	Moderate-Low Adverse*	<u>Moderate Adverse</u>
Viewpoint P4 The Point Apartments North Level 3 Apt 313	Low Adverse	Very Low Adverse	Low Adverse*	Very Low Adverse
Viewpoint P5 The Point Apartments North Level 5 Apt 513	Low Adverse	Very Low Adverse	Low Adverse*	Very Low Adverse

* Note:

For some viewers at these viewpoints, rather than being an adverse visual effect, the proposal may represent a beneficial (positive) visual effect³³

³³ As discussed in the Boffa Miskell Assessment in the section 9.3 discussion after table 4 on page 55

Attachment 2

Scale of effects ratings: Boffa Miskell Assessment³⁴ / Auckland Council³⁵

Comparing the two seven-point scale of effects ratings from the Boffa Miskell Assessment and the Auckland Council guideline, under the Resource Management Act 1991³⁶ context.

Effect Rating	Use and Definition (Boffa Miskell Assessment) [Auckland Council]	Auckland Council	RMA
Very High:	Total loss to the characteristics or key attributes of the receiving environment and /or visual context amounting to a complete change of landscape character. <i>[Total loss of the existing character, distinctive features or quality of the landscape resulting in a complete change to the landscape or outlook]</i>	Extreme	Significant
High:	Major change to the characteristics or key attributes of the receiving environment and /or the visual context within which it is seen; and/or a major effect on the perceived amenity derived from it. <i>[Major change to the existing character, distinctive features or quality of the landscape or a significant reduction in the perceived amenity of the outlook]</i>	Very High	Significant
Moderate - High:	A moderate - high level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a moderate - high level of effect on the perceived amenity derived from it. <i>[Noticeable change to the existing character or distinctive features of the landscape or reduction in the perceived amenity or the addition of new but uncharacteristic features and elements]</i>	High	More than minor but potentially acceptable
Moderate:	A moderate level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a moderate level of effect on the perceived amenity derived from it. <i>[Partial change to the existing character or distinctive features of the landscape and a small reduction in the perceived amenity]</i>	Moderate	More than minor but potentially acceptable
Moderate - Low:	A moderate - low level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have moderate - low level of effect on the perceived amenity derived from it. <i>[A slight loss to the existing character, features or landscape quality]</i>	Low	Minor
Low:	A low level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a low effect on the perceived amenity derived from it. <i>[The proposed development is barely discernible with little change to the existing character, features or landscape quality]</i>	Very Low	Less than minor
Very Low:	Very low or no modification to key elements/ features/ characteristics of the baseline or available views, i.e. approximating a 'no change' situation. <i>[The proposed development is barely discernible or there are no changes to the existing character, features or landscape quality]</i>	Negligible	Less than minor

³⁴ Refer table 1 'Effects Ratings' under section 2.3 on page 4

³⁵ 'Auckland Council - Information requirements for the assessment of landscape and visual effects' 2017

³⁶ Where this is relevant in relation to notification considerations or non-complying activities

Attachment 3

Suggested changes to the applicant's proposed conditions of consent 23 and 24

In response to proposed conditions of consent set out within Document 7 which accompanies the application Assessment of Environmental Effects.

Proposed additions shown as red underlined and deletions as ~~red strikethrough~~ text.

I have also included Rebecca Skidmore's recommended amendments relating to signage.

Pre-construction Conditions

Base Design – Buildings, Structures and Yard Areas Design

23. Unless specified by Condition 24 below, Bases A – G shall be constructed in accordance with the Moller Architects drawings specified in **Document DS4**. The consent holder shall submit detailed design drawings and supporting information for the following ~~building and yard structures~~ elements ~~as specified below relating to base buildings, structures and yard areas~~ to the Team Leader Compliance Monitoring – Central Monitoring for certification prior to construction:

a) Base A

- (i) Yard and security fencing design; and
- (ii) Signage (including sponsor signage) and Event branding.

b) Bases B - G

- (i) Building materiality, colour and finish;
- (ii) Building façade detailing and treatment for all facades and the roof with particular focus on elements fronting and interfacing directly with wharf public space areas;
- (iii) External (including rooftop) services, plant equipment, and any integrating or screening treatment / elements;
- (iv) Yard and security fencing design; and
- (v) Signage (including sponsor signage) and Event branding.

The design of these elements shall be consistent with the amended America's Cup Wynyard Hobson Building and Public Space Design Guidelines, dated **10 April 2018** [update to address recommended amendments to Guidelines] ~~contained in Document 13~~, and a report, prepared by a suitably qualified and experienced person, confirming this consistency shall be provided as part of the drawings and information required above.

24. Where the design of Bases B – G is proposed to not be in accordance with the Moller Architects drawings in **Document DS4**, in addition to the requirements of Condition 23, the consent holder shall submit alternative design drawings to the Team Leader Compliance Monitoring – Central Monitoring for certification approval prior to construction constructions. ~~The design drawings shall demonstrate, which show~~ compliance with the following requirements:

- a) Building height shall not exceed a maximum of 15m above finished wharf or finished ground level;



- b) The building footprint shall comply with the Building Footprint areas shown on Beca Plan Civil Drawing Number 3233847-CA-4101 Rev B;
- c) The yard areas shall not extend beyond the Syndicate Base Boundary shown on Beca Plan Civil Drawing Number 3233847-CA-4101 Rev B;

The new design of the base buildings, structures and ~~related~~ yards areas shall be in terms of the amended Wynyard Hobson Building and Public Space Design Guidelines, dated 10 April 2018 *[update to reflect new date of amended Guidelines]* ~~contained in Document 13~~. A report prepared by a suitably qualified and experienced person, confirming this consistency, shall be provided to certify that they comply with a) – c) above.

Advice note: *The purpose of Condition 24 is to ensure that any proposed changes to design will not result in additional adverse visual or amenity effects on the surrounding environment and is intended to provide an alternative process to a formal s127 variation or consent application for design changes within the scope of the consent, excepting that Council reserves the right to require the consent holder to make a s.127 application, or, as appropriate, new application for resource consent, if necessary.*

APPENDIX F

REBECCA SKIDMORE

URBAN DESIGN REPORT

Auckland Council

Peer Review Comments

Peer Reviewer:	Rebecca Skidmore
Area of Expertise:	Urban Design
Date:	20th June 2018
Application Details:	An application by Panuku Development Auckland for the various consents required for the use and development associated with holding the 36 th America's Cup in December 2020 to May 20121 and any subsequent events within a 10 year period and to construct, use and operate up to seven syndicate bases within the 10 year period.
Peer Reviewers Reference:	Council Ref. BUN60318372 My ref.: 18011
Documents Reviewed:	<ul style="list-style-type: none">▪ Application AEE by Unio (13/04/18, Application Document 4);▪ Proposed consent conditions (Document 7);▪ Architectural Design Statement by Moller Architects (12/04/18, Document 10);▪ Urban Design report by McIndoeUrban (12/04/18, Document 12);▪ Building and Public Space Design Guidelines (10/04/18, Document 13);▪ Legacy report (Document 30);▪ Various drawing sets (urban design assessment figures, LVA plans and visual simulations, architectural drawing set, concept engineering drawings, DS1 to DS5).

1 Introduction and Area of Expertise

- 1.1 I am an Urban Designer and Landscape Architect. I hold a Bachelor of Science degree from Canterbury University, Christchurch, a Bachelor of Landscape Architecture (Hons.) degree from Lincoln University, Christchurch and a Master of Built Environment (Urban Design) degree from Queensland University of Technology in Brisbane, Australia. I am a director of the consultancy R. A. Skidmore Urban Design Limited and have held this position for approximately fifteen years.
- 1.2 I have approximately 22 years' experience in practice in both local government and the private sector. In these positions I have assisted with district plan preparation and I have reviewed a wide range of resource consent applications throughout the country. These assessments relate to a range of rural, residential and commercial proposals.
- 1.3 In my current role I regularly assist local authorities with policy and district plan development in relation to growth management, urban design, landscape, and amenity matters, and provision of housing within identified special housing areas. I also have considerable experience in carrying out character assessments.
- 1.4 I am an independent hearings commissioner.
- 1.5 I have provided expert evidence in the Environment Court on numerous occasions.
- 1.6 Over the years I have had various involvements in the analysis and planning of the Wynyard Quarter area. This included: preparing a landscape and visual assessment baseline study for AWAG in 2002; contributing to an urban design study for development of the Wynyard Quarter for the former Auckland City Council in 2006 and reviewing the subsequent Plan Change provisions for the Wynyard Quarter for the former Auckland City Council.
- 1.7 The application relates to various sites proposed to accommodate the collection of bases from Hobson Wharf to the eastern side of the Wynyard Point together with the public spaces around these base locations. In this report the area encompassed by the proposal is referred to as the '**Site**'.
- 1.8 I have visited the 'Site' and surrounding environs on numerous occasions in reviewing this proposal and earlier iterations.

2 Site Description / Receiving Environment

- 2.1 The Site and its relationship to the surrounding context is described in detail in a number of the assessment documents accompanying the application. Section 4.1 of the AEE sets out a description of the history of the development of the waterfront area

which assists to understand the morphology of the area and the pattern of development that exists today. Both Section 4.2 of the AEE and Section 3.1 of the Urban Design report set out the various statutory and non-statutory frameworks that have guided the planning of the area. The area has been subject to much analysis and planning since the late 20th Century which has seen the transformation of the Viaduct Basin and Wynyard Quarter from an industrial area with limited public access or engagement with the coastal edge to a vibrant and high amenity mixed urban environment. The area exhibits a clear and strong urban structure that has been guided by detailed masterplanning. As noted in the Urban Design report, the planning for the Wynyard Precinct has been, since its inception, 'concept driven'. Urban design concepts have established clear spatial planning intentions for the structure and form of development in the area. Key ordering concepts for the development of the Wynyard Precinct include creation of:

- The waterfront axis;
- The park axis;
- The wharf axis;
- Waterfront precincts with distinct character.

2.2 The Urban Design report provides a description and observations about the existing environment under the various sections of the report assessment. These relate to: urban form and structure; waterfront activity; access and connections; waterfront open space; and building location and design.

2.3 While the mixed use environment of the Viaduct Basin has been established for some time, the Wynyard Precinct is far from seeing its full transformation or capacity and regeneration. However, the key design concepts noted above are readily apparent and embedded in the evolving environment. A strong waterfront axis has been created that is enjoyed by many people at different times of the day and throughout the year. While the public realm amenity at the eastern end of the axis has been compromised to a degree by large areas of surface carparking on the Eastern Viaduct (until recently) and Te Wero Island, the lifting bridge connection from the Viaduct Basin to the Wynyard Precinct and the high quality design of the public realm along the waterfront axis through the precinct has created a distinctive and well-used axis. To date, North Wharf has been developed as a hospitality precinct that reinforces the waterfront axis. Wynyard Wharf along the eastern side of Wynyard Point is still primarily used for marine industry and is not publicly accessible. The car ferry leaves from the base area of this wharf where it intersects with North Wharf. The start of the green axis has been implemented with the creation of a linear park adjacent to Daldy Street at its northern end.

2.4 While the distinct character of the different precincts in the area will evolve over time, there are already clear distinctions in the area that reflect the various activities and their resulting built environment. The area as a whole has a strong maritime character with

the visual links to the marine environment and a mix of commercial and recreational boats moored around the perimeter of the land and wharf structures. While the western edge of the Wynyard Precinct retains a strong marine industry focus, the fishing fleet is dispersed through the area and contributes to the authenticity of the environment as a working waterfront and provides both visual interest and contributes to the area's character.

3 Adequacy of Information

- 3.1 The Urban Design report is read in conjunction with and relies on detail provided in a number of other related reports, including the AEE, the Architectural Statement and accompanying drawings, the Building and Public Space Design Guidelines, and the Legacy Report.
- 3.2 The report provides a clear structure. It is organised around a consideration of the 5 key urban design matters noted above at paragraph 2.2. The introduction section sets out an overview of the key relevant provisions contained in the Auckland Unitary Plan (AUP) (for the Wynyard Precinct and Viaduct Harbour Precinct). It also provides an overview of other non-statutory documents that have contributed to the planning for the area. While the non-statutory documents provide useful background, it is the AUP provisions that are most relevant to inform an assessment of the proposal. A more detailed analysis of the relevant AUP provisions is set out in the AEE.
- 3.3 For each of the 5 urban design matters, a description and analysis of the existing environment is provided followed by an assessment of the proposal against the AUP provisions. From this, conclusions are provided for each section. The figures that accompany the report are helpful to further explain both the existing environment described in the report and the assessment of the effects of the proposal in relation to the key urban design considerations. The photographs and visual simulations accompanying the Landscape and Visual Effects Assessment are also helpful to assist an understanding of the proposal and how it will sit in its surrounding context.
- 3.4 The set of architectural plans for the bases includes floor plans, cross sections and elevations for each building. These are to be read in conjunction with the Building and Public Space Design Guidelines. Further comment is provided below in relation to the administration of these guidelines and their relationship to the submitted plans. The architectural package also includes a series of three dimensional sketches to assist an understanding of the collective proposal. The accompanying Architectural Design Statement sets out a rationale for the configuration and design of the buildings.
- 3.5 Overall, I consider the information provided is adequate to understand the proposal and the relevant urban design matters that require consideration.

4 Analysis of Effects

- 4.1 The AUP provisions for the Viaduct Harbour Precinct and the Wynyard Precinct have resulted from considerable analysis and design consideration over a number of years. The provisions provide a 'design-led' framework and address a number of key urban design considerations. The following comments are organised around the structure provided in the Urban Design report.

Urban Form and Structure

- 4.2 I agree with the analysis provided in the Urban Design report regarding the scale of buildings proposed and their appropriateness in relation to the surrounding context. The analysis has regard to the permitted height limits in the AUP and the height and bulk of buildings in the surrounding area (some of which exceed the permitted height standards).
- 4.3 While Base A is to be located within the existing Viaduct Event Centre on Halsey Wharf and Bases C – G are to be located on land, Base B is proposed on a new extension to Hobson Wharf, projecting out into the marine environment of the Viaduct Harbour. The proposed building has a greater bulk than the adjacent Maritime Museum. However, I agree with the Urban Design report (at pages 16-17) that the adjacent building on Princes Wharf is the dominant built feature, and the angle of the proposed Hobson Wharf extension extends a gradual opening away from Princes Wharf and achieves a suitable height to width ratio between the buildings.
- 4.4 Proposed Buildings B – G adopt a cohesive and repeated use of primary forms and rooflines. The configuration and articulation of the proposed buildings, while resulting in simple marine industry forms, successfully respond to the adjacent public spaces, creating a reasonable level of activation and visual interest.
- 4.5 The application includes (as Document 13) a set of Building and Public Space Design Guidelines (the "**Guidelines**"). Proposed Condition 23 requires the base designs to be in accordance with the architectural plans submitted with the application in Document DS4, with detailed elements to be in accordance with the Guidelines and plans and a supporting report submitted to the Council for certification. Flexibility is also proposed through Condition 24. In the event that a proposed building is not in accordance with the submitted plans, this condition provides a mechanism for an alternative building (within specified bulk parameters) to be developed, also in accordance with the Guidelines. Given the timeframe proposed for the consent and the current lack of certainty about the various base users, I agree that flexibility in the building design, as provided by Condition 24, is appropriate. However, rather than the plans being submitted to the Council for certification, I consider it is appropriate that they are submitted for approval, which would enable the Council to carry out a robust check of the plans and their consistency with the Guidelines.

- 4.6 In my opinion, the Guidelines address the relevant matters that require consideration both for new buildings not previously approved and for the detailed design of buildings that are included in the application. In my opinion they strike an appropriate balance between providing flexibility to enable design innovation (as sought in the introduction to the Guidelines) and ensuring acceptable urban design outcomes and the high quality built environment anticipated by the AUP are achieved.
- 4.7 I agree with the analysis set out in the Urban Design report regarding urban structure. The existing collection of wharf structures creates a complex edge to the Harbour and variously defines enclosed and sheltered waters. The proposed Hobson Wharf extension and various breakwaters will be compatible with the established pattern and will improve public access out over the water, enabling people to experience the dynamic of sheltered and open waters from different perspectives.
- 4.8 The extension of a deck from the land across Wynyard Wharf will reduce its reading as a wharf. The legacy proposal to remove 50% of these infill elements strikes an appropriate balance between facilitating future use of the wharf with maintaining a visual connection to the water's edge, enabling the structure to read as a wharf.
- 4.9 In my opinion, the proposal has been developed in a comprehensive and integrated manner. The configuration proposed has resulted from considerable design testing and feedback from stakeholders, including submissions received in relation to a previous proposal. The dispersal of bases around the Wynyard Precinct waterfront will contribute to the integration of the America's Cup activities with the wider waterfront and will make a positive contribution to the character and amenity of the area. In my opinion, this configuration is preferable to creating a stand-alone campus.
- 4.10 I agree with the analysis at page 21 of the Urban Design report regarding the provision of lanes on Wynyard Point and obstruction of one of the Viewshafts identified in Precinct Plan 6 of the Wynyard Precinct. The proposal only partially achieves the Precinct Plan configuration of lanes between Hamer Street and Brigham Street and the adjacent Harbour environment. While the consent timeframe proposed is considerable, the configuration proposed will not be permanent. I consider the effect of not providing the full extent of lanes and viewshafts in this area is acceptable, particularly given the requirement for additional planning and design work to determine a more permanent solution for this area. As noted in the Urban Design report, the proposal makes provision for east-west physical and visual connections which is an improvement on the current situation.

Waterfront Activity

- 4.11 The Urban Design report sets out an overview of the range of activities that currently exist and are intended in the various statutory and non-statutory documents to create a vibrant and distinctive waterfront environment. In particular, I note the policy direction for the Wynyard Precinct to create a "vibrant community with a mix of activities and experiences for all people including a community focal point, high quality public open spaces and community facilities" (Objective I214.2(1)(c)). For the Viaduct Harbour

Precinct a “mix of activities is encouraged including residential, business, tourism and events that create a vibrant environment” (Objective I211.2.6).

- 4.12 In my opinion, the locations proposed to accommodate the America's Cup bases are appropriate and, together with the supporting event activities in the various public open spaces in the area, will make a positive contribution to the vibrancy and identity sought for the area. As noted above, the dispersed configuration of bases around the Wynyard and Viaduct waterfront will integrate with other established activities in a positive way. As described in the Urban Design report (at page 27), this will create a 'village' atmosphere for the area.
- 4.13 However, the proposal will result in the displacement of a number of established activities. The location of Base A in the Viaduct Events Centre, will preclude its use for the wide range of activities that currently use the venue. Proposed Base A is configured to locate an 'interactive zone' fronting and opening onto the adjacent Karanga Plaza. While this will maintain a public aspect to the building the more diverse function of the building will be lost for the 10 year timeframe proposed. The building will take on a function that is specifically related to the maritime function of the America's Cup.
- 4.14 The Urban Design report notes that the elevated deck at the northern end of the building will continue to provide for public viewing over the Harbour, and during the America's Cup, also over adjacent basins and the bases. The existing ramp up to the viewing deck is located on the eastern side of the building and is an integrated and prominent feature of the building design creating an inviting accessway to the viewing platform. A secondary stairway is located on the western side. The removal of the primary ramp and its replacement with a lift access at the northwestern corner of the building and new stairway on the northern side of the building will not be as prominent or inviting and may not appear as publicly accessible. The building backs onto the western side of the wharf with a relatively blank and utilitarian façade and service areas located on this side of the building. In my opinion, the space around the accessway should be designed to reinforce and signal this entrance as clearly publicly accessible. Given the value of the elevated viewing area for public access, I consider it would be appropriate to include a condition requiring on-going public access to this area.
- 4.15 The location of bases on Wynyard Point will require the relocation of the ferry terminal. There is already some conflict between the functioning of this activity, and particularly the queueing of cars to board the ferry, and the public enjoyment of North Wharf. The relocation of this activity will remove this conflict and is a positive change.
- 4.16 An important aspect of the Viaduct and Wynyard waterfront is that, while it has evolved to accommodate a range of activities, it maintains a function as a 'working waterfront' with fishing fleets operating in the area. This contributes to the distinctive character of the waterfront. The proposal will result in the displacement of fishing activity during event mode (six months for each event over the 10 year consent period). However, marine industry use of the Halsey Wharf extension will be maintained throughout. The reduced fishing fleet activity will result in an adverse effect on the character of the area reflecting its function as a working waterfront. However, during event mode, this will

be off-set by the increased activity and vibrancy created by the America's cup and associated marine activities. Given the ongoing operation of some fishing fleet activity, albeit at a reduced level, and in the context of the different and positive character created by the activity associated with the America's Cup, I consider the adverse effect to be minor.

- 4.17 A legacy of the proposal is the creation of a number of publicly accessible wharves and breakwaters. These will add to the network of maritime spaces currently available and is a positive outcome of the proposal. Further comment is made below regarding the suitability of the Hobson Wharf extension as part of the open space network. Wynyard Wharf is currently not accessible to the public. The upgrading of the wharf structure will facilitate the establishment of pavilions on the wharf and access by the public.

Access and Connections

- 4.18 An important feature of the waterfront is the creation a strong waterfront axis and a high quality public realm that creates good physical and visual access to the marine environment. This is reflected in Objective I214.2.1(e) for the Wynyard Precinct which seeks to achieve "access to and along the coast and enjoyment of the coastal environment with a network of open space while recognising the need to manage access with the competing commercial activities."
- 4.19 I agree with the analysis set out in the Urban Design report (at page 34) that the primary east-west waterfront axis will be maintained and the proposal will generate activity along this. Base A will open onto and activate the space in a key location adjacent to Karanga Plaza.
- 4.20 As noted above, the proposal will result in a number of additional spaces to access the water's edge. However, the location of bases and their requirement to seamlessly access the water will result in two key areas of reduced connectivity.
- 4.21 The first results from the closing of the southern portion of Brigham Street. Currently Hamer Street and Brigham Street provide a continuous street loop out to the end of Wynyard Point. While the area is currently dominated by industrial activity, it is a popular route, with many people stopping at the point to enjoy the views it affords to the wider Waitemata Harbour. It is proposed to divert a connection around the northern side of the bases to connect back to Hamer Street (one way only from east to west). This is a more convoluted route that diverts away from the coastal edge. The loss of this public street connectivity adjacent to the water's edge is, in my opinion, a more than minor adverse effect. While the loss of connectivity is temporary, the 10 year timeframe is considerable. As noted in the Urban Design report (at page 35), consideration should be given to enabling public access (at least pedestrian and cycle) between events when the bases and yards are not in operation. I recommend a condition is included to require this access. This would reduce the timeframe when the connection is lost and would reduce the adverse effect to a minor level.

- 4.22 Once closed, there is some risk that public access along this edge will not be restored. While Panuku's Waterfront Plan Refresh (2017) indicates that this area will form part of the headland park in the future, there is no guarantee that this proposal will proceed. In my opinion, it is important that long term public access along this waterfront alignment is maintained. I understand that the Council's planner, Nicola Broadbent, is proposing an amended set of conditions dealing with the removal of base buildings and site reinstatement. As part of this, the consent holder would be required to lodge draft "Removal and Reinstatement Works Plans". I recommend that the RRWPs be required to include, in the case of Wynyard Wharf, details concerning the reinstatement of public pedestrian and cycling access along the coastal edge to a minimum width of 20m.
- 4.23 I note that the Condition 172 of the Application suite of recommended conditions requires the detailed design of the public realm to strongly discourage pedestrian access to Hamer Street and Brigham Street north of Base C. I understand this condition relates to risk management concerns about large numbers of people congregating in this area during events. From an urban design perspective, the long term provision of connectivity for pedestrian and cyclists around Wynyard Point is important.
- 4.24 The use of the Viaduct Events Centre as Base A results in reduced connectivity around the Halsey Street Wharf. The Urban Design report notes (at page 35) that this will only be during event mode. Confirmation should be provided that the eastern edge of the wharf will be open to public access at other times. As noted above, the existing Viaduct Events Centre has a primary orientation to the south and east, with the back of house service functions of the building interfacing with the western accessway along the wharf. This makes this edge less attractive for public access. With the reduced access available to the wharf area, it is important that public access is maintained on the western side of the building at all times and it is recommended that a condition is included to reflect this. As noted above, the proposed amended connection to the upper level viewing platform is less prominent and design interventions in the open space should emphasise this connection. The Design Guidelines should address this design intervention.
- 4.25 The proposal includes an extension to Hobson Wharf with a public plaza to the east and public access around the northern and western side of the Base B building. Access to this area is constrained. Currently a service access along the western side of the Maritime Museum is the only connection back to the waterfront axis. It is the rear face of the building that fronts the accessway with service function and carparking located adjacent to the building. It has a limited dimension and a poor visual connection from the primary waterfront axis to the proposed extension area. This provides poor connectivity to the space. The poor connectivity and dislocation of the Wharf extension from the primary waterfront axis reduces its suitability as an event space in legacy mode. Further comment is provided below in the section on Waterfront Open Space regarding the potential legacy use of the wharf space.

- 4.26 The proposal includes a number of breakwaters that will be publicly accessible. This will increase the opportunity for the public to experience the waterfront from a number of vantage points.
- 4.27 I agree with the analysis set out in the Urban Design report (at pages 36 and 37) regarding visual connections from land to the Harbour. The proposed configuration of bases maintains good visual connections between the waterfront axis and the marine environment, including the outer Viaduct Harbour and the wider Waitemata Harbour and landmarks within it, such as Rangitoto Island. Halsey Wharf will remain open maintaining visual connections to the wider Waitemata Harbour. While the location of Base B will result in some reduced outlook to the outer Harbour, the extent of this obstruction will not be significant in the context of the extensive views available from the waterfront.

Waterfront Open Space

- 4.28 Figures 16 and 17 of the Urban Design Assessment Figures package (DS1) show the network of existing and proposed open spaces along the waterfront in both event and legacy mode. The AEE notes (at page 33) that the existing open spaces will be utilised for a range of events associated with the America's Cup. These spaces are well connected and provide a range of scales, dimensions and character to accommodate different activities.
- 4.29 As noted above, it is considered that the proposed plaza space on the Hobson Wharf extension has a poor connection to the waterfront axis and will be of little benefit as part of the open space network, other than its association with the adjacent America's Cup base. I do not agree that the legacy space will be suitable for events. As noted in the 'Legacy Benefits for Auckland' report, the future use of the Hobson Wharf could be in conjunction with the existing Maritime Museum activity and building. In my opinion, the area would be best suited as a destination with a purpose built facility rather than a general open space for public realm events. Such a future use would be subject to a future resource consent application. While the Hobson Wharf extension provides options for a number of legacy uses, I consider it would be of limited benefit as part of the open space network and would not be suitable as an event space.
- 4.30 The removal of the SeaLink Ferry and the creation of a new temporary public space adjacent to Silo Park (as shown in Figure 8 of the Urban Design report) will make a positive contribution to the open space network and the diversity of spaces along the primary waterfront axis. The temporary public space adjacent to Hamer Street will contribute more to the amenity and activation of the bases and the immediately adjacent street than the primary waterfront open space network.
- 4.31 Planning and implementation of the Headland Park for Wynyard Point together with development of the adjacent Wynyard Wharf is likely to take some time. The remediation of the land and upgrading of the wharf structure as part of this proposal will provide a legacy for the establishment of these future activities at the southern end of Wynyard Point. This will be a positive outcome.

- 4.32 The Building and Public Space Design Guidelines provide a framework for the design of all public spaces. Proposed Condition 25 requires the open space design drawings and an associated report by a suitably qualified and experienced person to be submitted to the Council for certification.
- 4.33 Some of the images in the Urban Design Assessment Figures (DS1) show an indicative design for the temporary open spaces on Wynyard Point (Sheets 8, 9 and 10). However, having regard to proposed condition 25, the actual design of these spaces is required to be guided by the Guidelines. I recommend that the Guidelines be amended to refer to these figures as additional guidance.
- 4.34 The applicant's proposed Condition 22 relates to Mana Whenua Engagement and includes a requirement (at 22(b)(iv)) for the provision of "cultural markers within the Infrastructure to recognise the historic associations of mana whenua with the area and the significance of the land and seascapes of Tikapa Moana to mana whenua". In my opinion, it would be helpful to include a reference to this design requirement in the Guidelines to ensure integration of the design process.
- 4.35 While the western side of the Halsey Wharf and the western side of Hobson Wharf are existing open spaces, the Guidelines do not address these spaces. In my opinion, the Guidelines should be amended to include specific reference to these spaces and indicate how amendments to the spaces will enhance visual cues to the upper level viewing deck for Halsey Wharf, and provide visual cues to the plaza on the Hobson Wharf extension and improve their amenity. Vehicle and car parking on Hobson Wharf should be limited to that which is essential for servicing the Maritime Museum and Base A (and I suggest below that a condition below be imposed to this effect). A condition should be included requiring the design elements outlined in the Guidelines to be implemented.

Building Location and Design

- 4.36 As set out in the Urban Design report, the various relevant statutory and non-statutory documents place a value on the quality of building placement and design in creating a high amenity and distinctive character for the waterfront.
- 4.37 I agree with the analysis set out in the Urban Design report (at pages 58 and 59) regarding the architectural quality and appropriateness of building scale proposed. While the majority of the proposed buildings are temporary, they will establish a marine, industrial aesthetic appropriate to the waterfront location and compatible with the quality and character of surrounding buildings. Buildings have been configured to maximise activation of adjacent public spaces.
- 4.38 To accommodate Base A, the changes proposed to the Viaduct Events Centre will result in the removal of the prominent ramp from the eastern side of the building. As noted above, the replacement access proposed will not have the same visual prominence or contribute to the drama of the building. The building turns its back to the west and therefore does not activate the proposed primary public connection on

the western side of the wharf. The location of the Interactive Centre fronting Karanga Plaza is considered positive and will create a public address to the primary open space.

- 4.39 The contribution the Bases make to the surrounding public realm will be determined by a number of detailed design elements such as: yard enclosures, lighting, and signage. These matters are addressed in the Building and Public Space Design Guidelines.

5 Matters Raised in Submissions

- 5.1 A number of submissions have been received that address matters that are relevant to urban design considerations. Some of these matters have been addressed in Section 4 above. Further comment on additional matters is set out below.

Urban Structure

- 5.2 The submission by the Auckland City Centre Residents' Group (the CCRG) emphasises the planning and design input that has guided the evolution of the waterfront. The submission encourages a 'whole of waterfront' approach for major development in this environment. I am satisfied that the proposal has been cognisant and responded appropriately to the various statutory and non-statutory design guidance for the wider waterfront. The Urban Design report has thoroughly assessed the proposal in relation to the various urban design documents.
- 5.3 While a number of submissions support the additional waterfront access provided by the wharf extensions and breakwaters, some submissions do not support the extension of the Hobson Wharf. My analysis of the proposed wharf extension is set out above. The submission by the CCRG suggests a better option would be to fill in the area immediately to the west of the Maritime Museum. I agree that this would create a space that is better connected (both physically and visually) to the main east-west axis and would have a better relationship to the Maritime Museum. However, it would severely limit the water space within the inner Viaduct Harbour, the edge available for berthing, and would reduce the water's edge connection of the main waterfront axis.
- 5.4 The submission by VHHL notes that the proposed Hobson Wharf extension will result in significant area of additional wharf space intruding visually and physically into the Waitemata Harbour. It suggests that the northernmost 10m, which is identified as being publicly accessible is not necessary and the extent of wharf extension could be reduced by 10m with the deletion of this access area. As I have set out in my assessment, I consider the additional public access to the water's edge provided by the wharf extensions and breakwaters to be positive and I do not consider the removal of public access in this area would be an improved outcome. As an alternative, the VHHL submission suggests that this 10m access area could be provided by way of a temporary structure that could be removed following completion of the event. If this is feasible, I consider this would be a suitable mechanism to reduce the permanent extent of the expansion area.

- 5.5 J Stevens is an owner/occupier of Shed 24 on Prince's Wharf. He raises concerns about the amenity effects of the wharf extension and the scale of the Base B building on residents of and visitors to Princes Wharf. The visual effects of the structure are addressed in the Landscape and Visual Effects Assessment review. I have set out above my opinion regarding the appropriateness of the relationship of the wharf and proposed building with Princes Wharf. Given the inner city environment, I consider the separation between the wharves and the proposed Base B building is suitable to maintain the amenity of residents of Prince's Wharf. For those walking along the western side of Princes Wharf, the proposal will result in some reduction in a connection to the marine environment. However, this will be replaced by a visual connection to an additional activity area. A visual connection to the wider Waitemata Harbour will be maintained.
- 5.6 A number of submissions raise concerns about the effect of the Base B building on views to the Waitemata Harbour and Rangitoto Island from the main pedestrian and cycle east-west route. For those moving along this axis, the visual connection to the marine environment is varied and dynamic. The amenity provided derives from a combination of wide views, a visual connection with boating activity within the Viaduct area and the ability to access the water and experience a range of activities at its margin. In my opinion, the loss of the visual connection to the wider Waitemata Harbour will be less than minor and the additional activity and potential to access the water's edge via the wharves and breakwaters will be a positive effect of the proposal.
- 5.7 The submission by The Point Body Corporate notes the viewshaft controls in the UP from the Eastern Viaduct (shown on Precinct Plan 5) for the Viaduct Harbour Precinct. These viewshafts extend from the Eastern Viaduct to the inner Viaduct Harbour immediately to the north. This visual connection will be maintained.

Pedestrian and Cycle Connectivity and Amenity

- 5.8 A number of submissions emphasise the importance of pedestrian and cycle connections through the area and seek to maintain and improve the functionality and amenity of these connections. An analysis of the connectivity effects of the proposal is set out in Section 4 above. The submission by Bike Auckland encourages a strong emphasis on cycling and walking in the area and recommends that provision should be made for high quality and well located bike parking. I agree that this would make a positive contribution to the amenity of the area in association with the events proposed. It is recommended that the Open Space Guidelines are expanded to specifically include reference to the provisions of bike parking.
- 5.9 The submission by Firth Industries notes the potential conflicts between heavy vehicles and pedestrians and cyclists accessing Wynyard Point along Hamer Street. I recommend that the Guidelines are amended to acknowledge this potential conflict and ensure design responses minimise the conflict.
- 5.10 The submission by the St Mary's Bay Association Inc. notes the effects of the base buildings on public visual and physical connections to the Harbour. This issue has

been discussed in Section 4 above and recommendations made to ensure the long term maintenance of public access to the eastern edge of Wynyard Point.

Design Character and Implementation

- 5.11 A number of submitters involved in the delivery of the America's Cup event raise similar concerns about the prescriptive nature of the Building and Public Space Design Guidelines and highlight the flexibility required by those developing the bases to meet their requirements. The submissions note that the Guidelines were prepared for permanent structures (particularly apartment and commercial buildings) to be erected in the City Centre zone and the Viaduct and Wynyard Precincts. This is not the case. The Guidelines are specific to this proposal and have been promoted by the Applicant as a way of addressing potential adverse effects on the amenity and character of the Waterfront. The Guidelines have been recommended in response to the detailed analysis provided in the Urban Design report.
- 5.12 In contrast, the submission by VHHL considers that Condition 24 which provides for alternative base design proposals, with assessment required against the design guidelines, is not suitable and provides little comfort regarding the aesthetic qualities of any alternative design or its sensitivity to the surrounding environment.
- 5.13 In my opinion the Guidelines are an appropriate mechanism to allow flexibility and innovation in the design of buildings and open spaces encompassed by the proposal, while ensuring adverse amenity effects are avoided and mitigated. As outlined in the Unitary Plan policy framework and expressed in a number of submissions, Auckland's waterfront is a highly valued environment and there is an expectation that development in the area will be of a high quality and make a positive contribution to its character and amenity. In my opinion, it is critical that the buildings and spaces have a design quality that is commensurate with the primacy of the waterfront while acknowledging the non-permanent nature of the buildings and their functional requirements. In my opinion, the Guidelines, with amendments as recommended in this report, address relevant considerations and are appropriate to achieve suitable outcomes. In my opinion, the application of the Guidelines through Conditions 23 and 24, including the amendments proposed, strike an appropriate balance between providing certainty of effects and allowing design flexibility.
- 5.14 The submission by B. Jeffery notes the potential for flags, bunting and lighting of the bases to make a positive contribution to the festive character of the America's Cup event. Subject to the concern expressed by Glen Wright at paragraph 6.4 of his lighting report for the Council (relating to flashing/strobing light), I agree and note that the Guidelines includes a section on 'Team and Event Branding and Legibility' which encourages a co-ordinated and coherent approach to team branding. The Public Space section also addresses the use of lighting and flagpoles in the design of the public realm. While condition 23 refers to "Event branding" at (a) and (b), I note that there is no specific reference to signage, including sponsor signage. Similarly, the Guidelines do not refer to signage. I recommend that condition 23(a) and (b) be

amended to also refer to “signage (including sponsor signage)”, and that the Guidelines also be expanded to explain the approach that will be taken to signage for each base.

- 5.15 The submission by Ngati Whatua Orakei recommends that cultural design should be incorporated in the buildings and the urban design fabric of the neighbourhood. The submission by L. Wiggs also recommends that major design elements that recognise tangata whenua should be incorporated. Amendments to the Guidelines have been recommended in Section 4 above to ensure the design of public spaces is co-ordinated with the mana whenua engagement as required by proposed Condition 22. It would be helpful to better understand the additional elements that the submitters consider would usefully contribute to the design process and how these could be integrated into the Guidelines.

6 Aspects Requiring Control by Conditions

- 6.1 The application includes a suite of recommended conditions in Document 7. Conditions 23 and 24 relate to buildings, structures and yard area design. Condition 25 relates to open space design. As noted in Section 4 above, it is recommended that a number of amendments and additions are made to the conditions to address the following matters (alongside the amendments to the Guidelines I have suggested at paragraphs 4.33 to 4.35, 5.8, 5.9, and 5.14 above):

- Amend condition 23(a)(ii) and condition 23(b)(v) to refer, in each case, to “**Signage (including sponsor signage) and** Event branding”.
- Amend Condition 24 to require approval rather than certification;
- Require public pedestrian and cycle access to be provided along the Brigham Street alignment between America’s Cup events;
- Ensure public access along the Brigham Street alignment is re-instated at the completion of the consent duration;
- Ensure public access is maintained to the western side of Halsey Wharf at all times;
- Require public access to be provided to the upper level viewing platform of the Viaduct Events Centre;
- Require that the eastern edge of Halsey Wharf be open to public access between America’s Cup events;
- Ensure wharf extensions are not used for public carparking (either during the consent period or in legacy mode);

- Limit vehicle access and carparking on Hobson Wharf to that which is essential to service the Maritime Museum and Base B;
- Require the public space design features outlined in the Guidelines to be implemented prior to occupation of the America's Cup bases;
- If the Guidelines are amended, as I have suggested above at paragraphs 4.33 to 4.35, 5.8 5.9, and 5.14, then proposed conditions 23, 24 and 25 would need to be amended to refer to the updated version of the Guidelines (those conditions presently refer to a version of the Guidelines dated 10 April 2018).

6.2 I have discussed the draft conditions with Peter Kensington, who has prepared a separate report for the Council on the proposal's landscape and visual effects. Mr Kensington and I are in agreement concerning conditions, including the re-wording of the base and public space design conditions. I have suggested some possible condition wording / re-wording to address the above matters in the **Annexure** to my report.

6.3 Following a meeting with the Applicant's experts, proposed additional suggested conditions were received on 19 June 2018. These related to the requirement for a 'Hobson Wharf Activation Plan' prior to the removal of the syndicate base B and a suggested new Condition 24A to provide a framework for any building to replace Base B building. In my opinion, it is unclear at this stage what future uses may be suitable for the Hobson Wharf. I have set out above my opinion regarding the usefulness of the wharf extension as part of the public realm network. In my opinion, the conditions proposed are not helpful and suggest some pre-determination of the wharf's future development and use. I prefer the suggested conditions included in Nicola Broadbent's evidence around removal of structures/reinstatement (Conditions 6, 6A, 7, 7A, B and C).

7 Conclusions and Recommendations

7.1 Over the past twenty years there has been a transformation of Auckland's waterfront. This began with the transformation of the Viaduct Harbour area from an industrial area with limited public access or engagement with the coastal edge to a vibrant and high amenity mixed urban environment. More recently this has continued through the Wynyard Precinct which continues to develop and evolve. The urban transformation has been led by strong urban design principles and an emphasis on creating a distinctive and high quality public realm reinforced by the private realm development.

7.2 Overall, it is concluded that hosting the America's Cup will bring considerable benefit to the continued evolution of the waterfront. The base configuration proposed will make a positive contribution to the vitality and character of the wider area and the creation of an integrated village atmosphere.

- 7.3 It is concluded that in event mode the proposal will, overall, make a positive contribution to the vitality, amenity and character of the area. However, there will be a number of adverse amenity effects in relation to connectivity and displacement of activities.
- 7.4 Following the consent period, the proposal will provide a number of positive legacies, including the upgrading of Wynyard Wharf and the adjacent land and the creation of additional opportunities to access the water's edge from wharves and breakwaters. While the Hobson Wharf extension provides options for a number of legacy uses, it is considered to be of limited benefit as part of the open space network and would not be suitable as an event space.

Recommendations

- 7.5 Should consent be granted, it is recommended that amendments to the conditions are made to address the matters set out in Section 6 above.
- 7.6 It is also recommended that the Building and Public Space Design Guidelines are expanded to:
- a. address the design of the western side of Halsey Wharf and the western side of Hobson Wharf (adjacent to the Maritime Museum);
 - b. include reference to the requirements for cultural markers to be determined and implemented in conjunction with mana whenua;
 - c. include a requirement for easily accessible and well-designed bicycle parking;
 - d. acknowledge the potential conflict between pedestrians and heavy vehicles accessing Wynyard Point via Hamer Street and require the open space adjacent to this street to minimise this conflict;
 - e. link the Guidelines to the images in the Urban Design Assessment Figures (DS1) showing an indicative design for the temporary open spaces on Wynyard Point;
 - f. address the approach to signage, including sponsor signage, for bases.



Rebecca Skidmore

Urban Designer/Landscape Architect
June 2018

ANNEXURE

Suggested New / Amended Conditions

Pre-construction Conditions

Base Design – Buildings, Structures and Yard Areas Design

23. Unless specified by Condition 24 below, Bases A – G shall be constructed in accordance with the Moller Architects drawings specified in **Document DS4**. The consent holder shall submit detailed design drawings and supporting information for the following ~~building and yard structures~~ elements ~~as specified below~~ relating to base buildings, structures and yard areas to the Team Leader Compliance Monitoring – Central Monitoring for certification prior to construction:

a) Base A

- (i) Yard and security fencing design; and
- (ii) Signage (including sponsor signage) and Event branding.

b) Bases B - G

- (i) Building materiality, colour and finish;
- (ii) Building façade detailing and treatment for all facades and the roof with particular focus on elements fronting and interfacing directly with wharf public space areas;
- (iii) External (including rooftop) services, plant equipment, and any integrating or screening treatment / elements;
- (iv) Yard and security fencing design; and
- (v) Signage (including sponsor signage) and Event branding.

The design of these elements shall be consistent with the amended America's Cup Wynyard Hobson Building and Public Space Design Guidelines, dated **10 April 2018** [update to address recommended amendments to Guidelines] contained in **Document 13**, and a report, prepared by a suitably qualified and experienced person, confirming this consistency shall be provided as part of the drawings and information required above.

24. Where the design of Bases B – G is proposed to not be in accordance with the Moller Architects drawings in **Document DS4**, in addition to the requirements of Condition 23, the consent holder shall submit alternative design drawings to the Team Leader Compliance Monitoring – Central Monitoring for certification approval prior to construction ~~constructions~~. The design drawings shall demonstrate, which show compliance with the following requirements:

- a) Building height shall not exceed a maximum of 15m above finished wharf or finished ground level;
- b) The building footprint shall comply with the Building Footprint areas shown on Beca Plan Civil Drawing Number 3233847-CA-4101 Rev B;

- c) The yard areas shall not extend beyond the Syndicate Base Boundary shown on Beca Plan Civil Drawing Number 3233847-CA-4101 Rev B;

The new design of the base buildings, structures and related yards areas shall be in terms of the amended Wynyard Hobson Building and Public Space Design Guidelines, dated 10 April 2018 [update to reflect new date of amended Guidelines] contained in Document 13. A report prepared by a suitably qualified and experienced person, confirming this consistency, shall be provided to certify that they comply with a) – c) above.

Advice note: *The purpose of Condition 0 is to ensure that any proposed changes to design will not result in additional adverse visual or amenity effects on the surrounding environment and is intended to provide an alternative process to a formal s127 variation or consent application for design changes within the scope of the consent, excepting that Council reserves the right to require the consent holder to make a s.127 application, or, as appropriate, new application for resource consent, if necessary.*

Public Space Design

25. The consent holder shall ensure that the design of public spaces is consistent with the amended Wynyard Hobson Building and Public Space Design Guidelines, dated 10 April 2018 [update to address recommended amendments to Guidelines] contained in Document 13 and shall submit drawings and a report, prepared by a suitably qualified and experienced person, confirming this consistency to the Team Leader Compliance Monitoring – Central Monitoring for certification prior to construction.
- 25A. Public space design features as outlined in the amended Wynyard Hobson Building and Public Space Design Guidelines shall be implemented prior to occupation of the America's Cup bases.

...

Access

In connection with the amended set of conditions relating to the removal of base buildings proposed by the Council's planner, Nicola Broadbent, I support the proposed requirement for lodgement of draft "Removal and Reinstatement Works Plans" addressing, among other matters:

- d) the reinstatement of the site(s) following completion of the demolition / removal works, including (in the case of Wynyard Wharf) the reinstatement of public pedestrian and cycling access along the coastal edge to a minimum width of 20m;

In addition, I recommend a number of further conditions to address the access issues discussed in my report:

195. In the event that bases C-G (inclusive) are vacant during the ten year consent period, public pedestrian and cycle access to a minimum width of 20m shall be provided along the eastern edge of the bases, adjacent to the coast.

- 196. Public access shall be maintained along the western side of Halsey Wharf at all times.
- 197. Public access shall be maintained to the upper level viewing deck of the Viaduct Events Centre at all times.
- 198. Public access shall be provided to the eastern side of Halsey Wharf between America's Cup Events when Base A and yards are not in operation.
- 199. Access to and parking on Hobson Wharf shall be limited to that which is essential to service the Maritime Museum and the America's Cup Base B.
- 200. Wharf extensions (Hobson and Wynyard) shall not be used for public carparking.

APPENDIX G

GEMMA CHUAH AND HILLARY JOHNSTON

**STORMWATER AND INDUSTRIAL TRADE ACTIVITIES
REPORT**

Technical memo – Specialist Unit, Resource Consents

To:	Nicola Broadbent, Team Leader, North West Resource Consenting Unit, Auckland Council
From:	Gemma Chuah, Senior Specialist, Stormwater, Wastewater and Industrial or Trade Activities Team, Specialist Unit, Auckland Council Hillary Johnston, Specialist, Stormwater, Wastewater and Industrial or Trade Activities Team, Specialist Unit, Auckland Council
Date:	19 June 2018

1.0 APPLICATION DESCRIPTION

Application and property details

Applicant's name:	Panuku Development Auckland Limited
Application number(s):	BUN60318372 DIS60318378 (Discharge - Stormwater) DIS60320903 (Discharge - Industrial or trade activity) LUC60318373 (Land use - Industrial or trade activity)
Activity type:	Diversion and discharge of stormwater Discharge of contaminants from an industrial or trade activity Use of land for an industrial or trade activity
Purpose description:	To divert and discharge stormwater from 19,800m ² of impervious area associated with the America's Cup To authorise the use of land for and the discharge of contaminants from and Industrial or Trade Activity (boat repair and maintenance facilities) associated with the America's Cup
Site address:	Wynyard Basin

2.0 PROPOSAL, SITE AND LOCALITY DESCRIPTION

Proposal relevant to this permit/consent only

- 2.1 This report provides a stormwater and industrial or trades activities (ITA) assessment of the America's Cup 36 resource consent application, which we refer to in this report as the "**AC36 Application**". We note that other experts have prepared technical reports for the Council that are relevant to, or touch on, stormwater or ITA matters (e.g. Ahad Khan, Kala Sivaguru and Rob Van de Munckhof).

- 2.2 The 36th America’s Cup regatta is scheduled to be held in Auckland in 2021. Panuku Development Auckland Limited, the applicant, has been tasked with constructing syndicate base infrastructure, event infrastructure and associated facilities.
- 2.3 The applicant is proposing to establish bases in and around Wynyard Basin on the Auckland’s City Centre Waterfront. This area includes Hobson Wharf, Halsey Street Extension Wharf, Wynyard Point, Wynyard Wharf and the surrounding Harbour. A total of seven syndicate bases are proposed.
- 2.4 Four of the proposed bases will be built to accommodate two boats each, with the remaining three built to accommodate one boat each. The bases will consist of large buildings and uncovered hardstand areas.
- 2.5 As shown in **Figure 1** below, the base construction requires an extension to the Hobson Wharf. Additionally, the water space between Wynyard Wharf and Brigham Street will be constructed over to facilitate base construction on Wynyard Point.

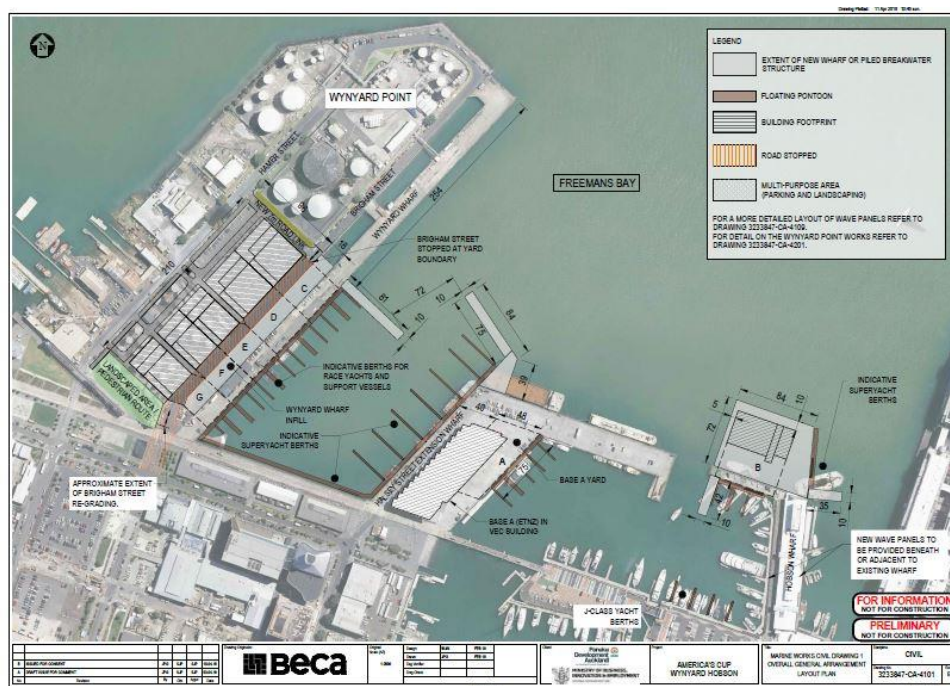


Figure 1.0 - Proposed General Layout Arrangement taken from AEE

- 2.6 The following application documents are particularly relevant to this report and stormwater matters:
- (a) Assessment of Environmental Effects for the AC36 Application prepared by UNIO Environmental Limited (**UNIO**) dated 13 April 2018 (**AEE**) (Application Document 4);
 - (b) The Applicant’s Proposed Conditions of Consent (**Draft Proposed Conditions**) (Application Document 7);
 - (c) The America’s Cup, Stormwater and Services Technical Report, prepared by Beca Limited, dated April 2018 (**Stormwater Report**) (Application Document

28).

- 2.7 A full description of the proposal is set out in Section 5.0 *The Proposal* of the AEE.
- 2.8 In relation to stormwater and ITAs, the applicant proposes to undertake a number of works and associated stormwater management controls which are detailed within the Stormwater Report. We summarise these below.
- 2.9 The following stormwater management is proposed:
- (a) The total land based impervious area that will be redeveloped to accommodate team bases has been estimated as approximately 19,800m²¹.
 - (b) The total new wharf areas proposed as part of Hobson Wharf are estimated as 6,800m².
 - (c) Runoff from all new roofs will be collected and discharged via dropper or underground pipes directly to the Harbour. Non-contaminant generating roofing material is proposed.
 - (d) Stormwater runoff from all vehicle trafficked impervious areas and wharf areas will be captured and discharged to proprietary filtration devices. The applicant has proposed the use of either Stormwater360 StormFilter, Stormwater360 Jellyfish or a similarly approved proprietary device prior to discharge to the Harbour. The proprietary filters will be installed in an offline configuration and will include backflow prevention mechanisms.
 - (e) The total wharf surfaces that will be treated will be approximately 8,800m² which will comprise of new and existing wharf surface on both Hobson Wharf and Halsey Wharf.
 - (f) Gross pollutants, particularly after events involving higher pedestrian numbers, will be addressed through source control measures. These will include wharf deck vacuum sweeping, manual litter collection and rubbish bin placement.
 - (g) The applicant has proposed the potential temporary installation of gross pollutant bags within catch pits on Wynyard Point.
 - (h) Stormwater reticulation will be designed to convey up to the 10% Annual Exceedance Probability (**AEP**) rainfall event. Stormwater flows generated by larger events will discharge to the Harbour via overland/over-wharf flow.
 - (i) New outfalls are proposed to discharge stormwater from the Wynyard Point and Wynyard Wharf areas directly to the harbour.

¹ See Table 4, page 17 of the Stormwater Report.

² See point 9, page 4 of the Further Information response letter dated 8 May 2018.

- 2.10 The ITA activity to be undertaken within the bases includes boat maintenance and repair. The following ITA management is proposed:
- (a) The seven bases will cumulatively include approximately 37,100m² of ITA activity area³. The activity areas will primarily consist of uncovered hardstand used for repair, maintenance and wash down of the boats.
 - (b) The proposal will include the implementation of structural and procedural controls to, where possible, avoid the discharge of contaminants. The applicant has proposed the use of either Stormwater360 StormFilter, Stormwater360 Jellyfish or a similarly approved proprietary device to mitigate discharges from the yard areas of the proposed activities.
 - (c) Structural and procedural controls, specific to the boat maintenance and repair activities to be undertaken within the syndicate bases, will be outlined within ITA Hazardous Substances and Environmental Management Plans (**ITA HSEMPs**) and ITA Emergency Spill Response Plan (**ITA ESRPs**) which will be specific to each base.
 - (d) The ITA HSEMPs will also include control measures for hazardous material and a hazardous substances management plan.
 - (e) The ITA ESRPs will include procedures to respond and manage spill incidents, emergency response training details and will outline key responsibilities and reporting lines.

Site description

- 2.11 The total site area involves an area of approximately 26ha⁴. The area, which is legally described in section 2.0 of the AEE, includes both land and Coastal Marine Area (**CMA**).
- 2.12 The AC36 bases and event infrastructure will be located within the Wynyard Quarter Precinct and Viaduct Harbour Precinct. The proposal is within the *Coastal – General Coastal Marine* and *Business – City Centre Zones* under the Auckland Unitary Plan (Operative in Part) (**AUP**). The proposal is not located within a Stormwater management area control – Flow 1 or 2 area shown in the AUP planning maps (referred to in the AUP as SMAF 1 and SMAF 2 areas).
- 2.13 The surrounding area comprises of a mixture of commercial marine related activities, restaurants and bars as well as other facilities such as the Maritime Museum and Viaduct Events Centre.
- 2.14 The proposed stormwater discharge location is directly to the CMA. A detailed overview

³ See Table 2, page 13 of the Stormwater Report.

⁴ AEE, page 11.

of the stormwater drainage regime for each of the wharves and for Wynyard Point is provided in sections 2.2.1 and 2.2.2 of the Stormwater Report.

2.15 A brief indication of the area is shown in **Figure 1** above.

Receiving environment

2.16 The applicant has provided a detailed description of the existing receiving environment in Section 2 of the Stormwater Report. The passages that are of most relevance to my assessment, are set out below:

2.1 Summary of Harbour Environment

...

The Waitemata Harbour is the receiving environment for stormwater discharges from the Auckland waterfront and Central Business District (CBD). ...

...Historical data indicates that water quality is generally good with mean total suspended sediment levels less than 10g/m³. During storm conditions, increases in the sediment concentration on the ebb tide can be expected....

The downtown Auckland waterfront has been created over the past 140 years by reclamation, dredging and construction, which have highly modified the environment.... Most of the sediment carried by stormwater flows settles out of suspension in the waterfront basins. Indications from waterfront sediment monitoring are that sediment quality has remained relatively consistent over time and the sediment typically contains elevated trace elements, such as copper and zinc, and organic compounds.

The downtown waterfront is protected by hard seawalls which protect against erosion or scour as a result of stormwater discharge.

2.2 Stormwater Management

2.2.1 Marine Works: Stormwater Drainage

Stormwater runoff from the 6.2ha of wharves between Wynyard Wharf and Princes Wharf is discharged directly into the harbour. Wharves constructed in the last couple of decades are generally fitted with formal stormwater drainage systems that collect runoff and direct it to discrete outlets whereas runoff from older wharves typically discharges diffusely into the harbour...

Background and site history

- 2.17 No regional stormwater or ITA consents have been held for the site prior to this application.
- 2.18 There are a number of other regional stormwater and ITA consents held by various parties in the surrounding area. None of these relate to the current proposals.

3.0 REASON FOR CONSENT

- 3.1 In this section we identify the reasons for consent in the AUP relevant to stormwater.

Stormwater – Discharge and Diversion

Land based impervious areas

- 3.2 Consent is required as a discretionary activity under rule E8.4.1(A10) for the diversion and discharge of stormwater runoff from impervious areas not otherwise provided for by the activity table.
- 3.3 The land based impervious area associated with the proposal is estimated as approximately 19,800m² and is redevelopment of existing impervious area. Existing impervious areas can be authorised under rule E8.4.1(A3) provided that the permitted activity standards at E8.6.2.2 are met. However, standard E8.6.2.2(4) specifically requires that the location of the discharge of the lawfully established impervious area must not change. As the proposed discharge location of land based impervious area will be rearranged to new stormwater outfalls the permitted activity standards cannot be complied with.

Wharf Areas

- 3.4 I note that the AEE (page 90) refers to the proposal as involving the diversion and discharge of stormwater from impervious areas associated with the new wharf structures, requiring discretionary activity consent in terms of rule E8.4.1(10). However, the definition of “impervious area” in Chapter J1 of the AUP concerns areas with a surface which prevents or significantly retards the soakage of water “into the ground”, and does not include impervious surfaces which are above water such as wharves. As such, the rules in Chapter E8 of the AUP do not apply to the wharf areas associated with the Application.
- 3.5 Chapter E4 (Other discharges of contaminants), rule E4.4.1(A15) provides that discharge of “water or contaminants (including washwater) onto or into land and/or into water not complying the relevant standards or not otherwise provided for in the Plan” is assessed as a discretionary activity.
- 3.6 I note that Chapter E4 contains regional plan, but not regional coastal plan, provisions. E4.1, Background, states that:

Discharges directly to the coastal marine area are addressed in F2 Coastal – General Coastal Marine Zone.

- 3.7 Table F2.19.7 in Chapter F2 deals with discharges to the CMA. Activity (A65) in Table F2.19.7 concerns “discharge of stormwater” and cross references to Chapter E8 for all coastal zones. As noted in paragraph 3.4 above, Chapter E8 is focused on discharges from impervious areas only, and stormwater discharges from structures over the CMA such as wharves are not covered by the rules in Chapter E8. Accordingly, stormwater discharges from CMA structures such as wharves arguably come under Activity (A62) in Table F2.19.7, which provides for the following as a permitted activity, provided the relevant permitted activity standards are met:

Discharges into the coastal marine area, which are not covered by another rule in the Unitary Plan and not covered by the Resource Management (Marine Pollution) Regulations 1998

- 3.8 The relevant permitted activity standards are set out in F2.21.8.1 and F2.21.8.6:

- 3.8.1 F2.21.8.1(1) establishes general discharge standards for all permitted activities⁵ as follows:

The discharge must not, after reasonable mixing, give rise to any or all of the following effects:

(a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;

(b) any conspicuous change in the colour or visual clarity water in the coastal marine area;

(c) any emission of objectionable odour; and

(d) any significant adverse effects on aquatic life.

- 3.8.2 F2.21.8.6 provides further specific standards relevant to Activity (A62):

(1) The discharge must not contain human sewage or hazardous substances as defined by the Hazardous Substances and New Organisms Act 1996 and any regulations made under section 75 of that Act.

(2) The discharge must not change the natural temperature of the receiving water, after reasonable mixing, by more than 3 degrees Celsius.

⁵ Other than discharges from firefighting and other emergency response activities undertaken by the New Zealand Fire Service.

(3) The discharge must not involve any visible disturbance to the substrate of the coastal marine area that cannot be remedied or restored within 48 hours in D11 Outstanding Natural Character Overlay, D10 Outstanding Natural Features Overlay and D9 Significant Ecological Area Overlay – Marine 1 areas and within seven days in other areas of the coastal marine area.

(4) Public access to and along the coast must not be restricted by the volume or movement of the discharge.

3.9 If these standards are not met, then resource consent is required for the discharge pursuant to activity (A70) in Table F2.19.7 (a discretionary activity in the General Coastal Marine zone).

3.10 I consider that the standards will be able to be met due to the proposed mitigation measures and, as such, this aspect of the proposal will be permitted under F2.19.7(A62).

Industrial or Trade Activities

3.11 Table E33.4.3 in Chapter E33 (Industrial and trade activities) contains a list of ITA risk criteria to assist in application of Tables E33.4.1 and E33.4.2. Transport and related activities, including boat or ship construction, repair or maintenance, over an area of more than 5,000m² is classified as a “High Risk” activity. The cumulative area of all seven bases is greater than 5,000m² (being approximately 37,100m²) and therefore is classified as a High Risk activity.

3.12 Consent is required as a Controlled Activity under rule E33.4.1(A8) for the use of land for a new industrial or trade activity listed as high risk in Table E33.4.3.

3.13 Consent is also required under rule E33.4.2 (A24) as a discretionary activity for the discharge of contaminants from a new high risk industrial or trade activity area.

Other activities considered

Stormwater Management – Quality

3.14 Consent is not required under rule E9.4.1 in Chapter E9 (Stormwater quality – High contaminant generating car parks and high use roads) as the proposal does not include a high contaminant generating car park or high use road.

Stormwater management – Flow

3.15 As noted above, the site is not within a SMAF area, and therefore the provisions in Chapter E10 (Stormwater management area – Flow 1 and Flow 2) do not apply, and consent is not required under rule E10.4.1.

4.0 TECHNICAL ASSESSMENT OF EFFECTS

Assessment of effects on the environment

4.1 In section 10 of the AEE and Section 5 of the Stormwater Report the applicant has identified and assessed the potential effects of the proposed activity on the environment with specific regard to stormwater and ITAs.

4.2 In summary, the following effects and proposed measures have been identified:

Stormwater

Water Quality

4.3 Run off from vehicle movement areas has the potential to contain contaminants.

4.4 Stormwater quality treatment by means of proprietary filtration devices has been proposed. The applicant has proposed the use of either Stormwater360 Stormfilters, Stormwater360 Jellyfish or similar Auckland Council approved proprietary devices prior to discharge to the Harbour.

4.5 Approved proprietary filtration devices are recognised by Auckland Council to provide contaminant removal in accordance with TP10 and the Proprietary Device Evaluation Protocol (**PDEP**) to achieve 75% TSS removal on a long term average basis. This level of quality treatment is referenced in the AUP standards and is the recognised best practice level of stormwater quality treatment.

4.6 Although a specific device has not yet been decided upon, the applicant has provided preliminary design details for Stormfilters including example calculations.

4.7 Proprietary filter devices require peak flow diversion to ensure that the device provides offline stormwater quality treatment to reduce the potential for resuspension of filtered contaminants. The PDEP reports also require that filters which are installed in areas at risk of tidal influence must include backflow prevention (e.g. a flap valve) to protect the treatment device from seawater intrusion.

4.8 A condition of consent is recommended requiring finalised design details, including device sizing calculations, to be submitted at the time of application for Building Consent and to require that the filters be installed in an offline configuration and include backflow prevention mechanisms.

4.9 The Northern Connector Road is not considered to be a high use road and due to the low level and frequency of vehicular traffic, stormwater quality treatment of this road has not been proposed.

4.10 Stormwater runoff from the roofs will discharge directly into the Harbour. Roofs will be constructed of inert non-contaminant generating materials. By utilising inert roofing, the potential for contamination is significantly reduced.

- 4.11 The proposed stormwater quality treatment regime is considered feasible for the site and appropriate in the context of the development and the anticipated contaminants such that the effects of stormwater discharging to the receiving environment will suitably mitigated.

Water quantity

- 4.12 The site is located directly adjacent to the Waitemata Harbour and will discharge directly into the CMA. There is no downstream freshwater environment where flooding could occur. Therefore, there will be no downstream adverse effect from any increases in flow rate or volume.

Industrial or Trade Activities

- 4.13 The AUP has identified and classified a number of industrial or trade activities as being high risk (Activity Table E33.4.3), based on both the potential and associated environmental effects that may result from the discharge of contaminants from these activities.
- 4.14 Inappropriate management practices of environmentally hazardous substances (EHS) from ITAs can result in discharges onto or into land or water leading to adverse environmental effects within receiving environments.

Contaminants of concern

- 4.15 Table 1.0 (below) summarises the potential activities that will be undertaken at the bases, the associated contaminants of concern, and structural or procedural controls proposed to mitigate or avoid effects:

Table 1.0

Activity/process	Potential contaminants of concern	Structural & procedural controls
Hull washing/daily cleaning	<ul style="list-style-type: none"> • Anti-foul paint and organic material washed from boat hulls in wash down area • Soaps and detergents 	<ul style="list-style-type: none"> • Coarse sediment screen such as Enviropods in all catch pits • Wash down without detergents specified within ITA HSEMP • Treatment via proprietary filtration device prior to discharge
Hull preparation	<ul style="list-style-type: none"> • Dust, anti-foul paint and sand from blasting 	<ul style="list-style-type: none"> • Method statements and standard operation procedures detailed within ITA HSEMP

Painting	<ul style="list-style-type: none"> • Paint, solvents, dust, litter • Acetone, epoxy, thinners 	<ul style="list-style-type: none"> • Bunded and covered/indoor boat maintenance area
Engine Repair	<ul style="list-style-type: none"> • Drippage/spill of oil, diesel, petrol and/or solvents 	<ul style="list-style-type: none"> • Spill Response Plan, spill kits placed at high risk spill areas • Hazardous substances kept in contained covered storage area in bunded containers in accordance with HSNO requirements. • Designated dangerous goods store
Battery replacement	<ul style="list-style-type: none"> • Drippage/spill of acid or lead 	
Storage of hazardous substances	<ul style="list-style-type: none"> • A spill of product such as paint, cleaning product, oil or other hydrocarbons which could subsequently enter the stormwater system. 	
Cranes	<ul style="list-style-type: none"> • Hydraulic fluid, oil and grease 	<ul style="list-style-type: none"> • Spill Response Plan, spill kits placed at high risk spill areas
Refuelling	<ul style="list-style-type: none"> • Total petroleum hydrocarbons 	<ul style="list-style-type: none"> • No refuelling to be undertaken on site • Refuelling to be undertaken at existing facility in Westhaven Marina
Litter	<ul style="list-style-type: none"> • Gross pollutants, debris, organic material 	<ul style="list-style-type: none"> • Daily housekeeping inspections • Regular site maintenance

Environmental management plan

- 4.16 The main method for addressing contaminants of concern is the preparation and implementation of a site-specific EMP. The ITA HSEMP identifies the EHS associated with a particular ITA and sets out the (structural and procedural) methods used to avoid, remedy or mitigate discharges.
- 4.17 The applicant has prepared a draft ITA HSEMP which contains the headings of sections that will be required to be completed by each base operator. It is anticipated that the structural controls will be the same for all of the bases, including proprietary filtration devices, and will be managed by the applicant with each team responsible for their own base-specific procedures including spill response management.

- 4.18 Controls specific to the boat maintenance and repair activities to be undertaken within the syndicate bases, will be outlined within the ITA HSEMP and ITA ESRP documents. The ITA HSEMPs will include control measures for hazardous material and a hazardous substances management plan.
- 4.19 Implementation of the ITA HSEMPs will reduce the likelihood of any hazardous substances entering the receiving environment.
- 4.20 Details including who will be responsible for operating each base and the associated base-specific operating procedures are not yet known. As such, base-specific detail has not yet been provided. It is therefore appropriate that the detailed completion of the ITA HSEMPs will be undertaken at a later time. I recommend a condition requiring that base-specific finalised ITA HSEMPs are submitted prior to the occupation of the bases and ITAs occurring on the site.

Procedural controls

- 4.21 Procedural controls aim to avoid the discharge of contaminants to the environment before they occur.
- 4.22 A number of procedural controls have been discussed and agreed upon during pre-application meetings with Auckland Council. These include but are not limited to:
- (a) Refuelling - no refuelling of boats or any other type of vehicle is allowed at the bases.
 - (b) Wash down - only water is allowed to be used for wash down of boats. No detergents shall enter the stormwater system.
 - (c) Secure base access - only authorised personal are allowed within the base ITA activity areas.
 - (d) EHS storage - all chemicals are to be stored and used in undercover areas. The storage of hazardous substances shall comply with the HSNO Act.
 - (e) ITA ESRP - a base-specific spill response plan will be implemented and will include procedures to respond and manage spill events, emergency response training details and will outline key responsibilities and reporting lines.

Structural controls

- 4.23 As with the vehicle trafficked wharf areas discussed in paragraph 4.3 onwards, stormwater from the uncovered ITA areas will be captured and discharged into an approved proprietary filtration device.
- 4.24 The Auckland Council PDEP reports do not include the use of these devices on ITA sites; this is due to the varied nature of these types of sites and the wide range of potential contaminants.

- 4.25 However due to the anticipated contaminants and the proposed procedural controls, taking in to account the limited duration of the activities and the site constraints, the use of proprietary devices is therefore considered to be an appropriate management practice for these activities.

Stormwater discharge monitoring

- 4.26 Discharges from ITA sites generally require a comprehensive stormwater discharge monitoring programme.
- 4.27 The purpose of such a programme is generally to establish a long term ongoing maintenance regime based on trends identified within the sampling results. Monitoring is needed to establish the maintenance regime due to the fact that the types and levels of contaminants expected from an ITA site vary from site to site and therefore, the treatment device may operate differently.
- 4.28 The AC36 event will take place over a six-month period between December 2020 and May 2021. The bases will be occupied in the lead up to the event and during the event. The application also considers the potential for similar six-month events within a 10 year period after the initial regatta.
- 4.29 Following the conclusion of the events the bases will be disestablished and the layout of the area will change to that referred to as “legacy mode” which will not include any ITA sites.
- 4.30 The applicant has proposed device monitoring for the first two years of operation to confirm (or refine) the maintenance regime. Considering the short-term nature of the proposed activities, it is not considered necessary to require ongoing discharge monitoring programmes associated with the ITA. I consider that the proposed monitoring for maintenance frequency purposes is sufficient.

Operation and maintenance

- 4.31 Ongoing maintenance of the proposed devices is crucial to ensuring that the effects continue to be mitigated. The applicant has stated that wharves and associated stormwater management devices will remain in the ownership of Panuku and that they will be responsible for the long-term operation and maintenance of the stormwater management system.
- 4.32 The proprietary devices require specialist maintenance and the maintenance frequency is specified within the device design. An Operation and Maintenance Plan (**OMP**) has not been submitted and will be required. As such conditions are recommended requiring an OMP to be submitted and maintenance contract to be held on an ongoing basis.

Cumulative and long-term effects

Long term effects

- 4.33 No bases will remain as permanent structures. On completion of the events and associated activities the ITA discharge permit will no longer be required, and as such I have recommended a 10 year consent term / expiry date for that permit in paragraph 5.9 of this report to allow for the requested two regattas.

Summary

- 4.34 Overall the implementation of the proposed structural and procedural controls and careful ongoing management of the sites will ensure that any effects on the environment as a result of the activities on the sites will be suitably mitigated. The proposed water quality treatment system for the site is considered appropriate in the context of the development and the anticipated contaminants.

Submissions

St Mary's Bay Association Inc. (Submission no. 82)

- 4.35 The St Mary's Bay Association have raised concerns relating to stormwater in section 3.3 and 4.3 of their submission, in particular around water quality. We agree with this concern that the development has the potential to adversely affect water quality, however, we are satisfied that the measures proposed by the applicant, including proprietary filtration devices and temporary gross pollutant traps, will be sufficient to address this.
- 4.36 None of the other submissions received raised any matters in relation to the diversion and discharge of stormwater or the use of land for or discharge of contaminants from an industrial trade activity.

5.0 STATUTORY CONSIDERATIONS

Objectives and policies Auckland Unitary Plan – Operative in Part

- 5.1 The following provisions of the AUP are relevant to the stormwater aspect of the AC36 Application:
- (a) Chapter E1.2 Objectives (1) to (3) regarding water quality and integrated management;
 - (b) Chapter E33.2., Objective (1) regarding ITAs regarding hazardous substances;
 - (c) Chapter E31.2., Objective (1) regarding hazardous substances. Chapter E1.3., Policies (5) and (6) regarding the National Policy Statement on Freshwater Management;

- (d) Chapter E1.3, Policies (9) to (12) regarding stormwater management;
 - (e) Chapter E33.3, Policies (1)-(3) regarding ITAs;
 - (f) Chapter E31.3, Policies (1) and (2) regarding management of hazardous substances.
- 5.2 The proposed stormwater management will achieve the above objectives and policies through the proposed stormwater management system. I consider that the proposed stormwater management is the best practicable option for the site.
- 5.3 The ITA objective of the AUP (E33.2(1)) is to ensure that ITAs “*are managed to avoid adverse effects on land and water from environmentally hazardous substances and discharge of contaminants, or to minimise adverse effects where it is not reasonably practicable to avoid them*”. EHSs used by ITAs are managed to avoid adverse effects on land and water as far as practicable, or minimise adverse effects where they cannot be entirely avoided.
- 5.4 The applicant is proposing suitable structural and procedural controls prior to discharging into the receiving environment. These controls will ensure that EHSs used by ITAs are managed to avoid adverse effects on land and water as far as practicable on the ultimate receiving environment.
- 5.5 The following general objectives and policies of the AUP may also be relevant to the planner’s assessment of the application:
- (a) Chapter E1 Water quality and integrated management, E1.3, Policies (1) to (3) regarding freshwater quality and ecosystem health interim guidelines.
 - (b) Chapter B7 Natural Resources, sections B7.3 and B7.4.

Matters relevant to discharge or coastal permits (section 105 of the RMA) and restrictions on certain permits (section 107 of the RMA)

- 5.6 In my opinion, the AC36 Application meets the provisions of section 105 of the RMA as there are no significant effects on the receiving environment as discussed in this memo. I consider that the applicant’s reasons for the proposed choice of stormwater management approach are appropriate in the circumstances.
- 5.7 Section 107(1) of the RMA places restrictions on the granting of certain discharge permits that would contravene sections 15 or 15A of the RMA. The proposal will not give rise to any of the effects listed in section 107(1).

Duration of consent: Section 123

Stormwater diversion and discharge

- 5.8 The applicant has requested a 35-year consent duration. I consider this is appropriate, as while the AC36 event itself will have a relatively short duration, the majority of the

proposed wharf surfaces will be permanent, and the ongoing maintenance of the stormwater management systems as required by the recommended conditions of consent will ensure that the required standards continue to be met.

Industrial or Trade Activities

- 5.9 It is considered appropriate to set a term of **10 years** for the industrial or trade activity permits as requested by the applicant. The AC36 event will take place over a six month period between December 2020 and May 2021.
- 5.10 There is the possibility a similar event could take place again should ETNZ be successful in its defence of the America's Cup. The 10-year duration will allow for the current consent to be utilised for any future events.

6.0 CONDITIONS

Proposed conditions

- 6.1 In Application Document 7 the applicant has proposed a set of conditions including those in relation to the management of stormwater and ITA. We have reviewed these conditions which are generally satisfactory and in accordance with typical conditions used for similar activities. The below paragraphs set out the reasoning for the conditions and outlines any recommended amendments to them. Amended wording is set out thereafter.

Expiry dates

- 6.2 The applicant's proposed conditions did not include specific expiry dates for the stormwater diversion and discharge permit or the ITA contaminant discharge permit. I recommend that these be inserted directly above the specific conditions for each of these topics.

Stormwater

Stormwater works

- 6.3 The stormwater works proposed have been designed to minimise the impact of the contaminants of concern.
- 6.4 We recommend replacing conditions **148** to **150** with a single condition that includes a table so that the proposed stormwater management works and design objectives are clearly able to be referenced.
- 6.5 Minor modifications to any part of the stormwater management system (assessed as part of this application) which do not alter the capacity or performance of the stormwater management system, may be undertaken without requiring a full variation to the consent. This condition provides for minor modifications when information confirming the extent of the changes is also provided at the time of the request. The modification must be verified by the Team Leader – Compliance Monitoring Central.

- 6.6 Final detailed designs have not yet been undertaken. Design details are required to be submitted at the time of application for Building Consent.

Construction meetings and plans

- 6.7 Conditions requiring pre- and post-construction meetings specific to the stormwater devices as well as those requiring as built plans to be submitted will enable verification by Council Compliance and Monitoring staff that the works have been carried out in accordance with the proposed design and also provides for any changes during the construction phase to be documented.

Operations and maintenance

- 6.8 Ongoing maintenance of any proposed devices is crucial to ensuring that the identified effects associated with this proposal continue to be avoided, remedied or mitigated. In addition to detailed operations and maintenance conditions (proposed condition 160 onwards in Application Document 7), an Operation and Maintenance Plan is incorporated into the ITA HSEMP (proposed condition 139(d)) and the conditions require that this be submitted to the relevant Team Leader – Compliance Monitoring Central. Ongoing reporting requirements are also included.

- 6.9 Further proprietary devices are proposed, which require specialist maintenance, and therefore conditions requiring a maintenance contract to be held on an ongoing basis are included.

Industrial or Trade activity

Commencement

- 6.10 As the ITA activity will not immediately commence upon granting of the consent I recommend a condition that requires the consent holder to notify Council when the ITA activities commence on the site.

Devices

- 6.11 The structural controls which are specific stormwater quality treatment devices are set out in the conditions. These are cross referenced to the equivalent conditions within the stormwater permit for simplicity. Other structural controls and all procedural controls will be included within the ITA HSEMP as required below.

Environmental management plan

- 6.12 An EMP is the key method used to ensure that the site is being managed properly. The conditions detail what needs to be included as well as require the submission of final base specific ITA HSEMPs and annual reviews.

Spill response plan

- 6.13 The spill response plan is critical to ensuring spill events are well managed and discharges are prevented. The conditions detail what needs to be included as well as require the submission of final base specific ITA ESRP.

Reporting

- 6.14 Regular reporting is required to ensure that the proposed controls and treatment approach continue to work effectively. Discharge monitoring will provide information on the level of contaminants being discharged and will inform trigger levels on which maintenance of devices and improvement to controls are based. The applicant has proposed that this report will be submitted every two years however it is more appropriate to be undertaken on annual basis, especially give the short duration of the events.

General

- 6.15 We have reordered the ITA conditions so that they follow a more logical sequence.

Amended condition wording

- 6.16 We recommend that conditions be imposed dealing with the expiry of the ITA discharge and stormwater discharge permits as follows:

Industrial or Trade Activity Permit – RMA Section 9(2) and Section 15 (Commencement & Expiry)

5A. The ITA discharge permit will commence in accordance with section 116(1) of the RMA and shall expire on (date to be inserted by decision maker; 10 years from decision date) unless it has lapsed, been surrendered or been cancelled at an earlier date pursuant to the RMA.

5B. The Team Leader – Central Monitoring shall be notified in writing within 10 working days of the boat repair and maintenance operations commencing on site.

Stormwater Permit – RMA Section 14 and 15 (Commencement & Expiry)

5C. The stormwater diversion and discharge permit will commence in accordance with section 116(1) of the RMA and shall expire on (date to be inserted by lead planner; 35 years from decision date) unless it has lapsed, been surrendered or been cancelled at an earlier date pursuant to the RMA.

- 6.17 We have set out recommended amended wording for the specific ITA and stormwater conditions below:

Stormwater Treatment Devices

~~140~~36. Stormwater treatment devices for the ITAs shall be provided as set out in Conditions ~~0 to 159~~.

~~141~~37. Stormwater treatment devices for the ITAs shall be operated and maintained in accordance with the ITA HSEMPs.

Industrial and Trade Activities Environmental Management Plans

- 1368.** At least 20 working days prior to Industrial and Trade Activities occurring on site, the consent holder shall prepare and submit **Industrial and Trade Activities Hazardous Substances and Environmental Management Plans** (ITA HSEMPs) to the Team Leader **Compliance Monitoring** – Central **Monitoring** for certification in terms of the matters in Condition **141**.
- 1379.** The purpose of the ITA HSEMPs is to set out the Best Practicable Option (BPO) approach to avoid, remedy or mitigate potential adverse effects arising from the ITAs, including treatment devices, operational procedures and management systems.
- 13840.** The Consent Holder shall ensure that each site is operated and managed in accordance with the ITA HSEMPs for the duration that the ITA continues and / or any hazardous substance is stored or used at that site.
- 13941.** The ITA HSEMPs shall include the following:
- a) Site location, activities, layout and drainage plans;
 - b) Identification of potential contaminants associated with the activities conducted on the site/s, methods to avoid, control and treat discharges of these from the site/s, and methods to manage environmental risks from site activities as far as practicable;
 - c) Identification of hazardous substances on site;
 - d) Operation and maintenance procedures for treatment devices, which may be contained in a separate plan cross referenced in the ITA HSEMP as required by Condition **150** (design report for stormwater treatment);
 - e) Roles and responsibilities associated with the ITA HSEMP;
 - f) Methods for providing and recording staff training on the ITA HSEMP;
 - g) A programme for auditing site performance against the ITA HSEMP provisions; and
 - h) Reporting and review of the ITA HSEMP.

Industrial and Trade Activities Emergency Spill Response Plans

- 1442.** Prior to occupation of the syndicate bases, the Consent Holder shall prepare **Industrial and Trade Activities Emergency Spill Response Plans** (ITA ESRPs) for the syndicate bases (~~one ESRP~~), which shall be submitted to the Team Leader **Compliance Monitoring** – Central **Monitoring** for certification in terms of the matters in Condition **145** below.
- 1453.** The purpose of the ITA ESRPs is to set out the operational procedures and management systems to mitigate the risk of spills from the ITAs.
- 1464.** The ITA ESRP shall apply to, and be kept on site and accessible on each site for the duration that the ITA continues at that site.
- 1475.** The ITA ESRPs shall include the matters in Appendix A to the America's

Cup Stormwater and Services Technical Report prepared by Beca, dated April 2018.

Reporting

- ~~1426.~~ The Consent Holder shall submit a report to the Team Leader Compliance Monitoring – Central ~~Monitoring every two years annually,~~ in a month to be agreed following the date that ITAs and/or hazardous substance handling or storage commenced at the sites. The report shall include:
- a) The performance of the sites against the ITA HSEMP provisions, including the results of any audits required under Condition ~~θ 141~~;
 - b) Inspection and maintenance records for the stormwater treatment devices;
 - c) Results and interpretation of the stormwater device monitoring programme
 - d) Records of any spills or incidents which occurred within the previous reporting period and the response undertaken; and
 - e) Any updated sections of the ITA HSEMP resulting from the review required under Condition ~~θ 141~~.
- ~~1437.~~ The Consent Holder shall report to the Auckland Harbourmaster or the Auckland Council's 24 Hour Water pollution Hotline (09 377 3107) all spills of Hazardous Substances of Classes 1 to 6, 8 and 9 over 20 litres and all spills of other substances over 50 litres that have entered the stormwater system or a water body from the ITA sites.

Stormwater Systems and Treatment Devices

- ~~148.—The Consent Holder shall design the stormwater systems and treatment devices in general accordance with the stormwater drawings referred to in Condition **Error! Reference source not found.**~~
- ~~149.—Stormwater treatment devices shall be provided on the following:~~
- a) ~~Wynyard Wharf permanent infill sections;~~
 - b) ~~Hobson Wharf extension; and~~
 - c) ~~Wynyard Point bases.~~
- ~~150.—The stormwater treatment devices shall be designed to remove 75% of suspended sediment discharges for the design water quality event.~~
148. The following stormwater management works shall be constructed for the following catchment areas and design requirements, and shall be completed prior to discharges commencing from the site:

<u>Catchment</u>	<u>Works</u>	<u>Design requirement(s)</u>
<u>Wynyard Wharf permanent infill sections – trafficked areas</u>	<u>Stormwater360 Stormfilter or similar approved device</u>	<ul style="list-style-type: none"> • <u>75% TSS removal</u>
<u>Hobson wharf extension – trafficked areas</u>		
<u>Wynyard point bases – trafficked areas</u>		

~~151. The consent holder may make modifications to the stormwater systems and treatment devices shown on those drawings, including the use of alternative Council approved stormwater treatment devices, subject to the certification of the Team Leader – Central Monitoring as set out in Conditions 0 and 0.~~

~~149. In the event that any modifications to the stormwater management system are required, that will not result in an application pursuant to section 127 of the RMA, the following information shall be provided:~~

- ~~Plans and drawings outlining the details of the modifications; and~~
- ~~Supporting information that details how the proposal does not affect the capacity or performance of the stormwater management system.~~

~~All information shall be submitted to and approved by the Team Leader Compliance Monitoring - Central prior to implementation of the modifications.~~

~~1520. At least 20 working days prior to construction of the proposed stormwater systems and treatment devices, the Consent Holder shall submit a design report to the Team Leader Compliance Monitoring - Central for certification, including detailed engineering drawings, specifications, and calculations for the stormwater treatment devices. The details shall include:~~

- a) ~~Confirmation that the design achieves the requirements of Conditions 148 0 and 0;~~
- b) ~~Contributing catchment size and boundaries and impervious percentage;~~
- c) ~~Specific design and location of stormwater treatment devices; and~~
- d) ~~Supporting calculations for stormwater treatment devices, including capacity and suspended solid removal efficiency.~~

~~153. Prior to construction of the stormwater systems and treatment devices, the design report prepared under Condition 0 shall be submitted to the Team Leader – Central Monitoring for certification that the report includes the matters listed in Condition 0.~~

~~154. Any amendments that may affect the performance of the stormwater systems and treatment devices certified under Condition 0 shall be~~

~~certified by the Team Leader — Central Monitoring prior to the planned implementation of the amendments, following the same process as in Condition 0 above.~~

Pre-construction meeting

- ~~1551.~~ A pre-construction meeting shall be held by the consent holder, **prior** to commencement of the construction of any stormwater devices onsite, that:
- a) Is arranged five working days prior to initiation of the construction of any stormwater devices on the site;
 - b) Is located on the subject area;
 - c) Includes representation from the Team Leader — Compliance Monitoring - Central; and
 - d) Includes representation from the site stormwater engineer and contractors who will undertake the works and any other relevant parties
- ~~1562.~~ The following information shall be made available prior to, or at the pre-construction meeting
- a) Timeframes for key stages of the works authorised under this consent;
 - a) Contact details of the site contractor and site stormwater engineer; and
 - b) Construction plans certified (signed/stamped) by an Auckland Council Development Engineer.

Post-construction meeting

- ~~1573.~~ A post-construction meeting shall be held by the consent holder, **within 20 working days** of completion of the stormwater management works, that:
- a) Is located on the subject area;
 - b) Includes representation from the Team Leader — Compliance Monitoring - Central; and
 - c) Includes representation from the site stormwater engineer and contractors who have undertaken the works and any other relevant parties.

Advice Note: *To arrange the pre-construction or post-construction meeting required by this consent, please contact the Team Leader – Compliance Monitoring - Central on phone 09 3010101 or .*

As Built Drawings

- ~~1584.~~ No later than 30 working days after the practical completion of the project or of any project stage which is subject to separate practical completion, that Consent Holder shall supply As-Built Drawings for the stormwater systems and treatment devices to the Team Leader Compliance Monitoring - Central Monitoring.
- ~~1595.~~ The As-Built Drawings shall be signed off by a Chartered Professional Engineer and shall include:

- a) The as-built locations of stormwater reticulation, treatment devices and outfalls expressed in terms of the New Zealand Transverse Mercator Projection and Chart Datum to the nearest 0.1 m for location and 0.01m for level;
- b) Stormwater treatment device details including dimensions, design capacity, treatment efficiencies, inlet/outlet levels and discharge rates;
- c) Photographs at all stormwater outfall locations; and
- d) Documentation of any discrepancies between the approved design plans under Conditions ~~s-0 and 0~~ 150 and the As-Built Drawings.

Operation and Maintenance Plan

16056. An Operation and Maintenance Plan shall be provided to the Team Leader —Compliance Monitoring— Central **5 days prior** to the post-construction meeting required by this consent for certification.

16457. The Operation and Maintenance Plan shall set out how the stormwater management system is to be operated and maintained to ensure that adverse environmental effects are minimised. The plan shall include:

- a) Details of who will hold responsibility for long-term maintenance of the stormwater management system and the organisational structure which will support this process;
- b) A monitoring programme to determine maintenance frequency;
- c) A programme for regular maintenance and inspection of the stormwater management system;
- d) A programme for the collection and disposal of debris and sediment collected by the stormwater management devices or practices;
- e) A programme for post storm inspection and maintenance;
- f) A programme for inspection and maintenance of the outfalls;
- g) General inspection checklists for all aspects of the stormwater management system, including visual checks

16258. The Operation and Maintenance Plan shall be updated and submitted to the Team Leader —Compliance Monitoring— Central for certification, upon request.

Maintenance Contract

16359. A written maintenance contract for the on-going maintenance of the proprietary device(s) shall be entered into with an appropriate stormwater management system operator, prior to the operation of any proprietary stormwater management device(s). A written maintenance contract shall be in place and maintained for the duration of the consent.

1640. A signed copy of the contract required shall be forwarded to the Team Leader —Compliance Monitoring— Central 5 days prior to the post-construction meeting required by this consent.

1651. A copy of the current maintenance contract shall be provided to the Auckland Council upon request throughout the duration of the consent.

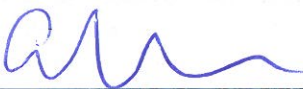
Maintenance Report

- 1662.** Details of all inspections and maintenance for the stormwater management system, for the preceding three years, shall be retained.
- 1673.** A maintenance report shall be provided to the Team Leader – Compliance Monitoring – Central on request.
- 1684.** The maintenance report shall include the following information:
- Details of who is responsible for maintenance of the stormwater management system and the organisational structure supporting this process;
 - Details of any maintenance undertaken; and
 - Details of any inspections completed.

7.0 REVIEW

Memo prepared by:

Gemma Chuah




Senior Specialist, Stormwater, Wastewater and Industrial or Trade Activities
Specialist Unit, Resource Consents

Date:

19 June 2018

Memo prepared by:

Hillary Johnston



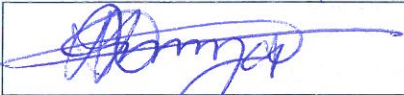
Specialist, Stormwater, Wastewater and Industrial or Trade Activities
Specialist Unit, Resource Consents

Date:

19.06.2018

Memo and technical review reviewed and approved for release by:

Rod Dissmeyer



Team Leader Stormwater, Wastewater and Industrial or Trade Activities
Specialist Unit, Resource Consents

Date:

19/6/18

8.0 DEFINITIONS

AC36	The 36 th America’s Cup regatta
AEP	Annual exceedance probability
AUP(OP)	Auckland Unitary Plan – Operative in Part
CMA	Coastal Marine Area
EHS	Environmental hazardous substances
EMP/ITA HSEMPs	Environmental Management Plan
HSNO	Hazardous Substances and New Organisms Act. 1996
ITA	Industrial or trade activities
SMAF	Stormwater Management Area Flow (as defined by the AUP(OP))
SRP/ ITA ESRPs	Spill Response Plan
TP10	Auckland Council Technical Publication 10. Stormwater Management Devices: Design Guidelines Manual. 2003

APPENDIX H

JON STYLES AND DR MATTHEW PINE

NOISE REPORT

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Prepared for: **Auckland Council**

Date: **21 June 2018**

Title: **36th America's Cup, Wynyard Hobson
Review of Noise and Vibration Effects
Construction and Operational Phases**

Revision Number: 2

Prepared by:



Jon Styles

And:



Dr Matthew Pine

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1. Introduction

- 1.1 Styles Group has been engaged by the Auckland Council to prepare a review of the noise and vibration related technical reports and submissions that were lodged with the application for resource consents associated with the hosting of the 36th America's Cup (and any subsequent events within a 10 year period). The application is known as the 'Wynyard Hobson' application.
- 1.2 This report has been prepared following the receipt of submissions on the proposal. The principal documents referred to herein include the following:
- a. *America's Cup Wynyard Hobson Events Noise Assessment*, Report Rp 006 r07 20171213 Revision 7, 12 April 2018 prepared by Marshall Day Acoustics, Application Document 24 (the **Events Report**);
 - b. *America's Cup Wynyard Hobson Construction Noise and Vibration Assessment*, Report Rp 007 r08 20171213 Revision 8, 12 April 2018 prepared by Marshall Day Acoustics, Application Document 22 (the **CNV Report**);
 - c. *America's Cup Wynyard Hobson Construction Noise and Vibration Management Plan CNVMP*, Report Rp 007 r05 20171213 Revision 4, 12 April 2018 prepared by Marshall Day Acoustics, Application Document 23 (the **CNVMP**);
 - d. *Further Information provided in relation to America's Cup Wynyard Hobson BUN60318372*, 14 June 2018 prepared by Kennedy Environmental, Marshall Day Acoustics and Unio Environmental (the **Underwater Effects Response**); and
 - e. Submissions related to noise and vibration.
- 1.3 Other documents referred to are referenced specifically.
- 1.4 This report also follows my involvement in the pre-lodgement phase of the project in 2017 and early 2018 for the Auckland Council. Both authors have visited the site on many occasions and are very familiar with the site and surrounds. Jon has also been involved in the processing, monitoring and enforcement of a large number of activities subject to various District Plan rules, resource consents for construction projects and events in the same general area over the last 15-16 years.
- 1.5 Mr Styles and Dr Pine are the authors of this report. Mr Styles has addressed the airborne noise and vibration issues arising from the construction, operation and event phases, and Dr Pine has the addressed the underwater noise issues associated with the construction phase.

2. Construction Noise Assessment (Airborne)

2.1 Overview

- 2.1.1 The CNV Report provides a good description of the relevant noise performance standards from the Auckland Unitary Plan – Operative in Part (**AUP**) and the Regional Coastal Plan (**RCP**) (which is part of the AUP) and the Auckland Regional Plan: Coastal (**ARP:C** – the former Regional Plan) as well as an explanation of the general methods by which these are applied and assessed. There is considerable discussion regarding the relationship between the AUP and RCP controls.
- 2.1.2 The CNV Report states that the noise generated by the works will comply with the CNV standards for most of the time, but that some isolated activities are predicted to exceed for brief periods, and only during the day. Whilst the proposal includes construction works at night, the CNV Report sets out that no particularly noisy activities can be undertaken at night and that the CNV standards should be complied with during those times. Resource consent is sought for infringement of the construction noise controls.
- 2.1.3 We generally agree with the noise level predictions and the assumptions they are based on, including the reference source levels, construction equipment and methods to be used and reductions for screening where it is practicable.

2.2 Project Standards

- 2.2.1 Section 4 of the CNV Report sets out the basis for the project standards as set out in its Table 4. The CNV Report provides a description of the relevant noise performance standards of the AUP, including the RCP provisions contained within Chapter F of the AUP. An assessment of the rules of the former planning document, the ACRP: C is also included, however we note the CNV Report incorrectly refers to this Plan as the RCP. The CNV report also provides an explanation of the general methods by which the noise performance standards are applied and assessed.
- 2.2.2 We understand that the RCP became Operative in Part on 11 May 2018, when the Minister of Conservation approved the RCP provisions of the AUP (except those subject to two High Court appeals) in accordance with clause 19(4) of Schedule 1 to the RMA. It is our understanding that, as there are no outstanding appeals on matters relating to noise, the relevant rules of the RCP should be given full weighting, and the former ACRP:C rules can be disregarded. We therefore disagree with the first sentence of the third paragraph in Section 4.1 of the CNV Report concerning the ACRP:C still being operative in the CMA (although we acknowledge that, at the time Marshall Day prepared the CNV Report, this was the case).

- 2.2.3 We consider that noise from all works (whether in the General Coastal Marine Zone (**GCMZ**) or not) that affects receivers in the GCMZ should be assessed initially against the requirements of Rule E25.6.27 rather than E25.6.28 (as suggested in the CNV Report). For clarity, and to assist the interpretation of this section, Rule E25.6.27 contains noise limits for construction activities affecting receivers that include traditional residential and normal business receivers in areas not subject to any acoustic insulation requirements.
- 2.2.4 Rule E25.6.28 contains noise limits for construction activities affecting receivers in the City Centre zones where ambient noise levels are generally already very high, buildings are typically insulated from external noise (including being air conditioned to allow windows to be kept closed) and where constructors are motivated to complete works at night and on the weekend to avoid effects on businesses operating during the day. The noise limits in E25.6.28 applying at night, and on Saturdays and Sundays are considerably higher than those set out in E25.6.27.
- 2.2.5 The third paragraph of section 4.1 of the CNV Report sets out the rationale for the determination of the Project Standards as set out in Table 4 of the CNV Report. Whilst we generally agree that the Princes Wharf area is similar in nature and proximate to the activities in the other areas noted in that paragraph, we note that for the receivers on Princes Wharf further away from Quay Street there is a noticeable reduction in traffic noise levels, and the noise environment is generally quieter. We therefore do not agree that the receivers on Princes Wharf are so similar (in terms of the actual activities and exposure to environmental noise) that the standards in E25.6.28 are appropriate. In particular, the noise limits and timeframes applying to works on Saturdays and the L_{Amax} limit applying to works on Sundays are too liberal.
- 2.2.6 Taking into account the significant number of residential receivers and hospitality receivers with open facades and outdoor dining areas close to the works and the fact that Rule E25.6.27 applies to all works that affect receivers not in the City Centre zone, we consider that the following Project Standards provide a more appropriate set of controls for the project. We consider that the times when noisy work is permitted by the table below and the limits themselves are more appropriate for the mix of receivers that are present. These limits are similar to (but still generally higher than) the project standards that have been applied to a number of recent and significant roading projects, where the receivers are subject to high road traffic noise levels, including the Northern Corridor Improvements and the Waterview Connection. The City Rail Link conditions are also very similar, with a daytime noise limit of 75dB L_{Aeq} , and with night time and Sunday noise limits being the same as in our recommended table below.

**Styles Group Recommended Project Standards for Occupied Buildings
(Compare to Table 4 in the CNV Report)**

Days	Times	L _{Aeq(30min)}	L _{Amax}
Monday to Saturday	0700 to 2230	75	90
Sunday	0900 to 1900	65	80
All other times		60	75

2.2.7 It must also be remembered that whilst these Project Standards are the primary compliance tool for general works, they are also the thresholds which can be exceeded provided specific management controls are put in place. To that end, the Project Standards will have only limited influence on the actual effects generated by the works, (because they may be infringed) but lowering them slightly as we have suggested will effectively increase the amount of work where close scrutiny is applied to ensure the BPO is adopted, and will limit the likelihood of noisy works beginning very early in the morning and extending later into the night, which we consider appropriate.

2.2.8 We also note that whilst the Project Standards may for some projects be numerically the same as or similar to the permitted standards in the AUP, they serve quite different functions and do not therefore need to be the same.

2.3 Compliance with Project Standards

2.3.1 Section 5 of the CNV Report discusses the fact that compliance with the project noise standards may not be achievable at all times, and that provided the Best Practicable Option (BPO) is adopted the works may continue at noise levels higher than the CNV standards.

2.3.2 If the works were required to strictly adhere to the project CNV standards or the relevant noise limits in the AUP / RCP, the project would likely cost more and take significantly longer to construct, including a longer duration of noise effects. We therefore agree that it is sensible to provide for some phases of work to exceed the standard project CNV standards where the BPO has been adopted to minimise the effects. We consider that a proper understanding and effective management of the CNV effects that are above the CNV standards is vital. It is also important that the conditions set very clear limits (or project standards) for general works, which are also thresholds for additional scrutiny

and management where works cannot practicably be made to comply with the project standards.

- 2.3.3 The CNV Report provides an overview of the noise levels that are expected for various phases of work and for different parts of the project and also provides a brief commentary on which of the receivers will be exposed to noise levels greater than the CNV standards, and for approximately how long.

2.4 *Description of Effects*

- 2.4.1 Whilst the CNV report contains brief descriptions of the noise level infringements and durations, it does not contain a detailed description of the effects that would be experienced by the receivers close to the various works areas. For example, in section 5.1.4, the CNV Report discusses the fact that hotels could be particularly sensitive to noise early in the morning as guests are checking out. The report does not go on to describe how the predicted noise levels would actually affect the hotels at that time of the day or any other time of the day, or how working around that sensitivity might conflict with that of another receiver that is sensitive when the hotel is not.
- 2.4.2 In section 5.1.3, the CNV report states that at levels of 75-80dB L_{Aeq} , patrons may prioritise indoor areas or outdoor areas on the south side of the building. Whilst this may be true, we consider that this is a considerable understatement of the effects. We consider that noise levels as high as those predicted from impact piling and construction generally would be likely to make the outdoor spaces on the northern side of the buildings untenable for dining altogether, and that even indoor spaces are likely to be impacted to a considerable degree owing to the relatively lightweight constructions for most of the buildings. Given that many of the restaurants along North Wharf and Princes Wharf have open facades and significant areas for outdoor dining, in our view the effects of works generating such noise levels is likely to be significant.
- 2.4.3 Figure 2 of the CNV Report depicts the Noise Sensitive Receivers, but does not include the block of buildings behind the North Wharf restaurants, bounded by Jellicoe, Madden, Daldy and Halsey streets. Whilst we understand that this block does not contain any residential apartments, they contain businesses and office space which are sensitive to construction noise effects, particularly during the day. We consider that the effects on these businesses should be considered in this process, albeit that the effects will be less than that received at the North Wharf buildings.
- 2.4.4 It is our opinion that in order to fully understand the nature of the effects that the project will generate, a more detailed description of the way that people will react to construction

noise levels up to and above the CNV standards is necessary. **Table 1** below sets out the approximate nature of the subjective effect at various noise levels¹.

External Noise Level	Potential Daytime Effects Outdoors	Internal Noise Level	Potential Daytime Effects Indoors
Up to 65dB L_{Aeq}	Conversation becomes strained, particularly over longer distances.	Up to 45dB L_{Aeq}	Noise levels would be noticeable but unlikely to interfere with residential or office daily activities.
65 to 70dB L_{Aeq}	People would not want to spend any length of time in the area, except when unavoidable through workplace requirements.	45 to 50dB L_{Aeq}	Concentration would start to be affected. TV and telephone conversations would begin to be affected.
70-75dB L_{Aeq}	Businesses that involve substantial outdoor use (for example the North Wharf restaurants) would experience considerable disruption. Conversation becomes difficult. Not much else would be audible. <i>(75dB L_{Aeq} is normal daytime CNV standard)</i>	50-55dB L_{Aeq}	Phone conversations would become difficult. Personal conversations would need slightly raised voices. Office work can generally continue, but 55 dB is considered to be a tipping point for offices. For residential activity, TV and radio sound levels would need to be raised.
75-80dB L_{Aeq}	Some people may choose hearing protection for long periods of exposure. Conversation would be very difficult, even with raised voices.	55-60dB L_{Aeq}	Continuing office work would be extremely difficult and become unproductive. People would actively seek respite.
80-90dB L_{Aeq}	Hearing protection would be required for prolonged exposure (8 hours at 85 dB) to prevent hearing loss.	60-70dB L_{Aeq}	Untenable for both office and residential environments. Unlikely to be tolerated for any extent of time.

Table 1 – Noise Effects

2.4.5 Together with the information in this table, Section 5 and Appendix D of the CNV Report provide a good description of the likely subjective effects at various noise levels.

¹ This has been adapted from the information presented in section 20 of the Joint Witness Statement prepared in 2017 for the Northern Corridor Improvements Project before the Board of Inquiry, where Jon Styles was a signatory to the statement.

2.4.6 In our opinion, the effects can be summarised as ranging from being no greater than the current level of noise effects experienced in the area (which is by no means quiet), to periods of up to several weeks for many receivers where the effects will be significant for considerable periods of the day. There may be shorter periods for some receivers where the effects noted at the bottom of the table are experienced, and continuation of normal activities is not possible. Whilst such effects are not uncommon for receivers near to large construction projects, very careful management and mitigation will still be required to ensure that the BPO is adopted and that the noise levels are generally no greater than what has been assessed in this process.

2.4.7 Even with good management and the application of the BPO, we consider that the effects on the Maritime Museum and its associated facilities (cafe and conference / function centre) will be significant for the period when works are undertaken in close proximity.

2.5 *Construction Noise and Vibration Management Plan (CNVMP)*

2.5.1 Section 5.4 of the CNV Report sets out the content required of a CNVMP for the project. Although the list of requirements is short, we agree with it.

2.5.2 The application includes the CNVMP, as referenced in section 1 of this review. The CNVMP has been submitted as a draft document, and is intended to be updated prior to works commencing and also during the project as and when required, responding to changes in the works programme, receiving environment and construction and mitigation methodologies. We agree with the proposed implementation of the CNVMP and we note that this is commonplace for large projects. We also consider that it is essential that the CNVMP is clear and that its directives have clearly defined triggers so that the constructor is easily able to determine what mitigation is going to be required at any particular stage of the project, based on the plant and machinery required, proximity of receivers and the time of day. We consider that the draft CNVMP generally satisfies these requirements, and those of Annex E of NZS6803:1999 *Acoustics – Construction Noise*.

2.5.3 We do note however that where the noise level predictions in the CNV Report are based on a number of mitigation methods actually being applied (such as including a dolly on the pile cap) the CNVMP lists the mitigation as being required only “where practicable”. The difference in effects between mitigation being applied and not can be significant. We consider that the two documents are somewhat incongruous in this regard and that either the CNV Report needs to be updated to include the possibility that such mitigation measures may not be employed (with the necessary adjustments to the predicted levels

and description of effects), or the CNVMP be updated to make those measures mandatory. It is our expectation that the CNVMP would be the correct document to be updated.

2.5.4 We also consider that the CNVMP should also be used to clearly define the activities that will generate noise levels higher than the CNV standards, and should set out the specific mitigation and monitoring procedures for those activities. This provides a considerable increase in certainty for the receivers, the Council and the contractor about the measures required to deal with works generating such a high level of effects. We have suggested an amendment to the applicant's conditions to reflect this. Such an approach would be consistent with that taken for many other large construction projects, and given that the works subject to these provisions are generating the very highest level of effects, it is sensible that they are managed with the appropriate level of care and detail in the CNVMP.

3. Construction Vibration Assessment

3.1 Overview

3.1.1 The CNV Report provides an overview of the relevant vibration criteria and sources of vibration for the construction phase, and states that activity likely to give rise to most or all of the vibration effects will be piling. The CNV Report goes into considerable detail on the effects on the Maritime Museum, being the closest receiver to the works. We note that Regional Facilities Auckland (the owner and operator of the Maritime Museum) has provided written approval of the project in principle², however its letter appears to raise some potential issues, and accordingly we have not treated this letter as a 'written approval', such that the effects should be disregarded.

3.1.2 The CNV Report sets out that the vibration from piling is not likely to exceed the DIN4150-3 guideline criteria, except at the Maritime Museum, where localised infringements are possible. For the other receivers surrounding the project, vibration from piling would be lower, but still perceptible and potentially disturbing. The CNV Report recommends that such effects be managed through the CNVMP, including giving prior warning to the receivers and monitoring of vibration where necessary.

² Letter from Regional Facilities Auckland, 12 April 2018 – Appendix 33 to application documents

3.2 *Compliance with Project Vibration Standards*

- 3.2.1 The CNV Report includes two recommended conditions of consent (at page 27); one that sets out the project noise standards that should be complied with as far as practicable, and another that sets out the requirements of the CNVMP. The project vibration standards are not included in those conditions.
- 3.2.2 We consider that the project vibration standards should be included as part of condition 1 with a requirement to comply with them as far as is practicable, along with an additional requirement in condition 2 that would require the CNVMP to identify when works are going to exceed the standards together with specific mitigation and management measures. We would expect that the situations where non-compliance is likely will be difficult to predict at this time, but would become evident as the project begins and vibration measurements of the piling works can begin to be undertaken. As this information becomes available, the CNVMP can evolve and begin to be used as a predictive tool for the management of works close to the receivers. Such an approach would align with that adopted for many other large projects.
- 3.2.3 Having the vibration Project Standards included in the conditions as described above is in our opinion critical. They provide certainty and clarity for all stakeholders, including the consent holder, and can act as limits that can be enforced in the event that the specific management measures and approvals to exceed via the CNVMP have not been authorised.

3.3 *Construction Vibration Effects*

- 3.3.1 The CNV Report does not include any vibration predictions for the various receivers, but provides setback distances based on compliance with the project vibration standards (in table 9). It is not therefore readily possible to determine the likely nature and extent of vibration effects, particularly the amenity effects for proximate workplaces and hospitality venues.
- 3.3.2 Section 5.2.5 of the CNV Report states:

Vibration amenity effects on building occupants are considered reasonable, provided that they are of a constrained duration and BPO measures are implemented through a CNVMP to avoid, remedy and mitigate the vibration emissions as far as practicable.

- 3.3.3 Whilst the adoption of the BPO for the management of vibration will be covered by the implementation of the CNVMP, it is not clear that the duration of works will be 'constrained' for any particular receiver, and in particular those receivers that are slightly more distant from the works but where vibration effects may remain disturbing, including for example the North Wharf restaurants and potentially the buildings on Princes Wharf.
- 3.3.4 It is our opinion that in order to fully understand the nature of the effects that the project will generate, a more detailed description of the way that people will react to construction vibration levels up to and above the CNV standards is necessary. **Table 2** overleaf sets out the approximate nature of the subjective effect at various vibration levels³.

³ This has been adapted from the information presented in section 20 of the Joint Witness Statement prepared in 2017 for the Northern Corridor Improvements Project before the Board of Inquiry, where Jon Styles was a signatory to the statement.

Vibration Level (PPV mm/s)	Potential Effects (Indoors)
0.14	The threshold of perception for stationary people.
0.3	Can be perceptible during normal residential activities, particularly for more sensitive receivers. Levels above this would wake most people from their sleep. This is the AUP-OP limit for construction vibration generated at night-time for sensitive receivers.
1	Is generally tolerable, but complaint or adverse reaction is likely, particularly if there is no warning in office or residential environments. What people actually feel would be dependent on the source, but could include a steady vibration from sources such as vibratory compaction, or a small jolt such as from the movement of a large digger, either of which could rattle fittings, crockery and glassware. Sleep disturbance would be almost certain for most people.
2	Vibration would clearly be felt in all situations. Can be tolerated in indoor environments such as offices, houses and retail, where it occurs intermittently during the day and where there is effective prior engagement. This is the AUP-OP limit for large construction projects generating vibration.
5	Unlikely to be tolerable in a workplace. Highly unsettling for both the workplace and residential. If exposure was prolonged, some people could want to leave the building affected. Computer screens would shake mildly and light items could fall off shelves. This is the threshold below which no cosmetic damage will occur in the DIN4150-3 standard.
10	Likely to be intolerable for anything other than a very brief exposure.
20 - 50	Limit for no-damage to commercial buildings (from DIN4150-3, see Figure 7 of CNV Report). Applicable to Maritime Museum. Significant adverse effects on amenity. Occupants likely to vacate affected buildings.

Table 2 – Vibration Effects

- 3.3.5 This information can be used to inform a reasonable understanding of the effects of construction vibration on the various receivers. We expect that for receivers other than the Maritime Museum, the vibration levels from piling works could be as high as 5mm/s for the closest receivers, but levels would more typically be between 0.3mm/s and 2-3mm/s depending the proximity.
- 3.3.6 The construction vibration effects can be summarised as being at a level that will be perceivable and potentially annoying to most receivers throughout several weeks or months of the project for each receiver, with short periods where it may become disruptive at the closest receivers. For the Maritime Museum, we generally agree with section 5.2.2 of the CNV Report, except to state that if high levels of vibration are generated by piling when the museum is operating, the effects in the closest parts of the museum could be as high as those described in the last two rows of **Table 2** above, and would be significant. It is our opinion that the effects on the Maritime Museum will generate significant disruption to its activities, and very careful attention will be required to ensure the effects are managed as best as they can be, including through communication, monitoring, securing loose or fragile items and scheduling of work. We note that the option to use bored piling methods in this area will significantly reduce the effects.
- 3.3.7 Whilst such effects are not uncommon for receivers near to large construction projects, careful management and mitigation will still be required to ensure that the BPO is adopted and that the vibration levels are generally no greater than what has been assessed in this process.

4. Underwater Construction Noise Assessment

4.1 Overview

- 4.1.1 The CNV Report includes an underwater noise assessment dealing with the potential effects of the underwater noise generated by vibratory piling and dredging noise on marine mammals. Fish were not considered in the assessment based on the proposal being within the Waitemata Harbour, where fish diversity and abundance is considered low.
- 4.1.2 Section 4.3 of the CNV Report sets out the requirements of F2.18 of the AUP in brief, citing only the matters from assessment in F2.23.2.7. We consider that to provide a clear understanding of the potential effects and the reason for the assessment being required, the background to the provisions from F2.18.1 is helpful. That states:

Underwater noise can have an adverse effect on a range of marine animals that rely on sound to communicate, navigate, hunt and mate. Noise can cause threshold shifts in sensitivity to sound, and higher levels of sound can permanently damage or even kill some species.

Underwater noise has largely been overlooked in the past as a potential source of adverse effect to marine fauna, as well as to people working or undertaking recreational activities underwater. While limits on underwater noise generated by ships and vessels needs to be regulated at a national level, significant noise from certain underwater activities, such as blasting, impact and vibratory piling, marine seismic surveys, can be managed to address effects on marine fauna and people.

The Department of Conservation 2013 Code of Conduct for Minimising Acoustic Disturbance to Marine Mammals from Seismic Survey Operations focuses on controlling peak level noise effects and the Unitary Plan addresses the need to control noise levels.

- 4.1.3 The broad principle of the underwater noise assessment is to analyse the proposed activity to determine the extent and nature of underwater noise effects, taking into account the species that may be found in the area, the local physical environment and the level and character of noise that will be generate by the proposed activity. In this case the potential adverse effects can be broadly categorised as ranging from:
- a. No effects where the noise levels from piling becomes inaudible outside of the Waitemata Harbour;
 - b. A range of behavioural effects including changes to feeding, breathing, nursing, vocalisation and navigation and avoidance of the area generally in the area from Bean Rock / North Head to within a few hundred metres of the piling activity;
 - c. Temporary Threshold Shift (TTS) at close proximity to the piling as defined by the solid and dashed orange contours in Figures 6 and 7 of Appendix D to the CNV Report; and
 - d. Permanent Threshold Shift (PTS) or injury in area defined by the red contours in Figures 6 and 7 of Appendix D to the CNV Report.
- 4.1.4 Since some of these effects can have a substantial impact on the survival and reproductive success of marine life, the zone around the proposed activity for which

physical and behavioral impacts are likely must be calculated and managed appropriately.

4.1.5 Whilst the type of effects is typical and not peculiar to this application, the extent of water-space that they cover is, and is defined by the activity itself and the physical environment. The underwater noise assessment must therefore determine the extent of the various effect thresholds and determine the Best Practicable Option for minimising them.

4.2 *Species of Interest*

4.2.1 Section 4.3.2 of the CNV Report and the Underwater Effects Response state that the species of interest in the area are likely to comprise common and bottlenose dolphins, Orca, leopard seals, fur seals and occasionally larger whales such as the Southern Right Whale, although the latter are only occasionally seen in the lower harbour and are therefore not particularly relevant to this assessment.

4.2.2 In the same way that humans do not hear evenly in all frequencies, marine fauna also have specific hearing characteristics that must be accounted for. This ensures that the noise levels and effects are determined specifically for the way the species of interest will hear the noise. In terms of hearing characteristics, the species of interest include Phocid Pinnipeds (leopard seals), Otarrid Pinnipeds (fur seals), and mid-frequency cetaceans (dolphins and Orca).

4.2.3 We generally agree with the assessment of the species of interest and the frequency weightings adopted for the assessment.

4.3 *Underwater Noise Measurements*

4.3.1 Section 3.3 of the CNV Report sets out the methods for carrying out and results of a series of underwater noise measurements that were undertaken to characterise the underwater noise environment in the vicinity of the project. The results can be used to assist with understanding the likely behavioural responses to the construction noise. For reasons explained further on in this section, the ambient underwater noise levels are not critical to this assessment, but if they are to be presented nonetheless and on the basis that it may become relevant later in the process, it is our view that the assessment must be accurate.

4.3.2 Figure 3 of the CNV Report sets out the measurement locations, and Figures 4, 5 and 6 depict the results of the measurements over approximately 12-13 days in November

2017. Table 3 states the range of noise levels measured in terms of the root mean square (RMS) level over 15 minutes. The use of the single figure RMS level over such a long time frame (15 mins) is in our view unusual and is likely to considerably overstate the noise levels actually present. The range of levels presented in Table appeared to be very high to us, raising some concerns about the veracity of the measurement or analysis process, or whether there was a noise source in the harbour during the measurement period that generated atypically high noise levels.

- 4.3.3 In order to assist in determining the likely cause of the high levels, we undertook our own underwater noise measurements in approximately the same position as MP2 (in Figure 3 of the CNV Report) on the northern side of the harbour. A Soundtrap ST202 underwater sound recorder was deployed just before midday on the 9th June 2018 and was retrieved at approximately 1330 on Sunday the 10th June 2018. The weather during the measurements was reasonably calm with no precipitation. During the deployment, no unusual noise sources in the harbour were noted. There were no vessels observed to be running generators or other stationary noise sources in the area and no construction activities noted within sight that could affect the measurements.
- 4.3.4 A mooring system similar in concept to that shown in the diagram on the left side of Appendix B of the CNV Report was used, except that we utilised a proprietary stainless steel frame for the hydrophone to reduce the effects of mooring-induced noise on the recordings.
- 4.3.5 A full 24 hours of measurement data has been retrieved and analysed to give the following results:

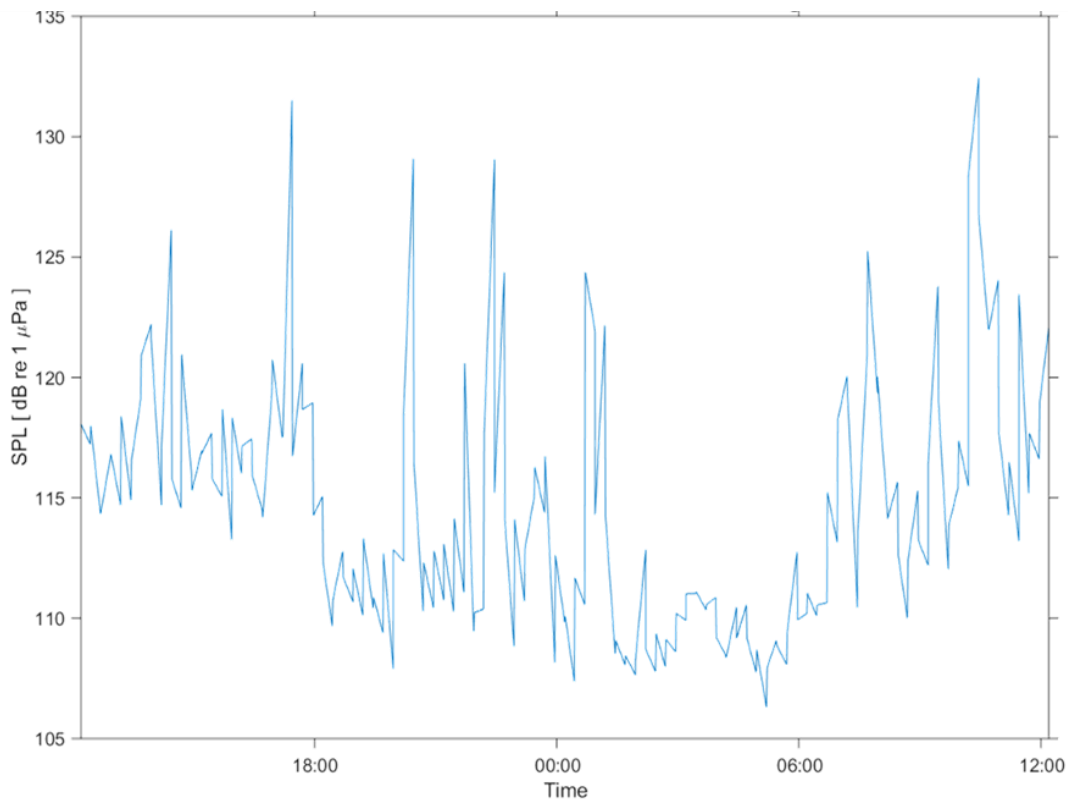


Figure 1 - Styles Group underwater ambient noise measurements (50Hz to 24kHz)

- 4.3.6 For comparison with the data presented in Figure 3 of the CNV Report, Figure 1 presents the 15 min RMS levels excluding the majority of tidal flow noise (below 50Hz). The results show levels as low as 107dB re 1 μ Pa and as high as 133 dB re 1 μ Pa. The median of the SPL data was 114 dB re 1 μ Pa and the Mode of the SPL data was 111 dB re 1 μ Pa.
- 4.3.7 Figure 6 of the CNV Report shows that the range of measured levels at MP2 was from approximately 114 dB re 1 μ Pa to 133 dB re 1 μ Pa. The highest measurement for each set of measurements is approximately the same which is expected. This will likely be caused by a vessel passing close by.
- 4.3.8 However, the lowest measurement value of our measurements is approximately 7 dB re 1 μ Pa lower than that reported in the CNV Report, with considerable periods of time when the noise levels were much lower than the lowest values plotted in Figure 6 of the CNV Report for the same position. The measurement data has been overlaid onto a random day selected from Figure 6 of the CNV Report to demonstrate the difference clearly. Our measurement data depicts an environment considerably quieter than that described in the CNV Report.

4.3.9 For the reasons set out above, we consider that the ambient noise measurements presented in the CNV Report are likely to overstate the ambient underwater noise levels by a considerable margin. We have not investigated the reasons for the differences, but we note if ambient underwater noise levels do become relevant to the assessments, the data presented in the CNV Report should be treated with caution.

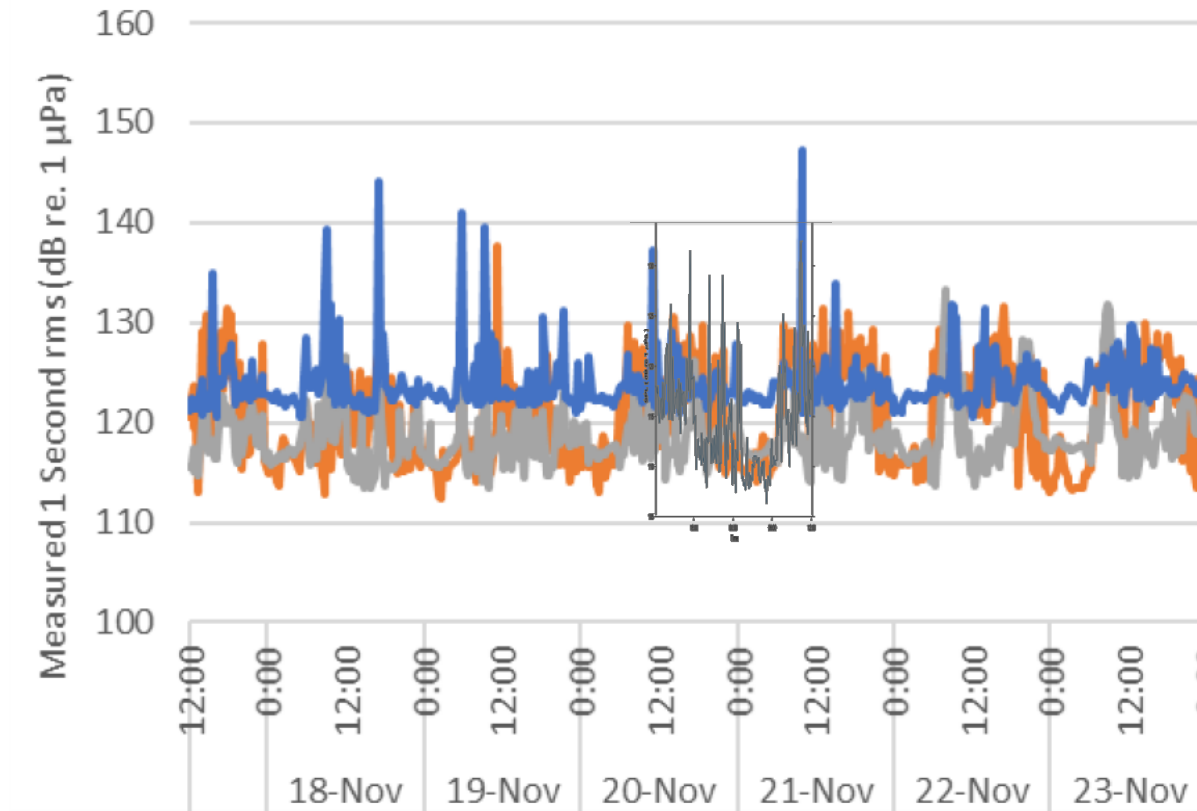


Figure 2 - Styles Group measurements (thin trace) overlaid on CNV Report Figure 6

4.4 Predicted Noise Levels

4.4.1 The CNV Report provides a brief introduction into the piling activity and the noise levels expected, and states that noise emissions do vary due to a number of factors, which we agree with. Noise emissions and propagation will be mostly influenced by the sediment type and propagation medium (the geoacoustics, bathymetry, topography and water chemistry). The CNV Report states that any changes to the size of the piles will require changes in management zones – we agree with this. The CNV Report also mentions the possibility of smaller, temporary, piles being installed and that these smaller piles will result in less extensive management zones – we agree with this also.

4.4.2 The accuracy of the underwater noise modeling depends on the quality of the user-input data, and the choice of model used depends on (1) water depth; (2) the frequency range of the noise source being modeled; and (3) whether the environment varies considerably with range from the source. Bathymetry, geoacoustic properties, sound speed profiles, and source spectrum must be entered into the model. The CNV Report provides a very brief overview of the inputs: bathymetry was provided by Auckland Council, source spectra of piling were taken from Caltrans (based on underwater noise measurements of concrete piles), sediment type was mud with sandstone beneath (depths of the mud layer not given), and sound speed profiles were assumed to be constant at all depths (acceptable for these shallow waters with mixing). The choice of model was parabolic equation for frequencies below 2kHz and ray tracing for above 2kHz.

4.4.3 We agree with the modeling methods generally, and we expect that the outputs are sufficiently accurate for purpose.

4.5 *Underwater Effects Response*

4.5.1 Following several meetings with the applicant's advisers on this topic, the applicant has provided the Underwater Effects Response, which takes the place of section 4.3.4 of the CNV Report, and also provides revised underwater effects threshold contours without the 150 dB re 1 μ Pa RMS contour shown. Instead, the Underwater Effects Response provides an assessment of effects that are likely to occur in the farther reaches of the harbour out to approximately Bean Rock, as well as the description of physical effects which will occur much closer.

4.5.2 The Underwater Effects Response also sets out the correct values and references to sections 5.3.2 and 5.3.3 of the CNV Report.

4.5.3 In general terms we agree with the Underwater Effects Response and the revisions it makes to the CNV Report, and although we consider that some minor technical issues remain, they have no appreciable effect on the substantive conclusion and proposed management regime.

4.6 *Effects Thresholds*

4.6.1 Marine mammals use sound for critical life processes, such as navigation, locating mates and prey, avoiding predators and coordinating behaviours. This is why marine organisms (marine mammals, fish and invertebrates) can be highly impacted by anthropogenic noise. There is a substantial amount of literature on the impacts of noise

on marine life, documenting both experimental findings in the laboratory and field, as well as systematic and opportunistic observations made in the wild.

- 4.6.2 Generally, the effects of underwater anthropogenic noise on marine mammals are divided into two categories, (1) physical; and (2) behavioural, although the interactions between them are being more closely looked at in contemporary research. Physical impacts are typically those that occur when the animal is in close enough proximity to the sound source to sustain injury (such as tissue damage from barotraumas, or permanent hearing loss from the destruction of sensory cilia in the inner ear). Behavioural impacts are far more varied and can be very subtle. Behavioural responses can be avoidance and fleeing responses, changes to diving patterns and surface durations, vocalisation changes etc.
- 4.6.3 Section 4.4 of the CNV Report states that the NOAA guidelines have been used for determining the various effects thresholds. We agree with this. As correctly identified, NOAA provide criteria for the potential onset of PTS and TTS for both mid-frequency cetaceans and phocids. We agree with the use of these thresholds. We also agree with the use of the 120dBrms threshold for defining the area within which behavioural effects may occur.

4.7 *Masking Effects*

- 4.7.1 Masking effects have not been assessed in the CNV Report. Much care is required when audibility of noise and masking zones are not being assessed in areas where marine mammals are known to occur at times, as it is not best practice. In the context of the AC36 proposal inside in the Waitemata Harbour, the CNV Report justifies excluding an assessment of masking effects because it is understood that marine mammals do not frequent the area and it is not a critical habitat for feeding, breeding or navigating for the species of interest. However, before masking effects can be excluded from the assessment, further consideration is required as to whether the noise propagates beyond the project area and into a distant area where marine mammals do occur more frequently. In the case of the AC36 proposal, noise modelling described in the Underwater Effects Response shows the piling noise does not propagate beyond Bean Rock, which is at the entrance to the Waitemata Harbour and where marine mammal detections are still rare (based on marine mammal detections at Bean Rock). We therefore accept the absence of a masking assessment for this proposal.

4.8 Dredging

- 4.8.1 It is understood that dredging activities will be required, however only using a backhoe dredger. Details on the backhoe dredger, such as capacity and power, are not provided in the CNV Report, however it is understood that it will be small. The CNV Report states that noise from excavation activities are negligible and not considered further – which is generally incorrect. Some backhoe dredgers can generate source levels between 164 and 179 dB re 1 μ Pa @ 1m while dredging soft sediments, exceeding background noise levels for frequencies up to 20 kHz which should not be considered negligible for an assessment involving phocid pinnipeds.
- 4.8.2 The CNV Report provides a reference to source levels for backhoe dredgers (Jones & Marten 2016, page 26), that range between 154-179 dB re 1 μ Pa @ 1m. The CNV Report states that the noise is from the barge engine and propellers, although backhoe dredgers are not usually self-propelled. In any case, the CNV Report concludes by considering the dredging noise to be similar to the majority of medium to large sized vessels currently travelling in the Waitemata Harbour and thus the overall level and character would be generally comparable to existing vessel movements.
- 4.8.3 It is important to note that dredging noise from backhoe dredgers (or any active dredger) is very different to vessel noise in both their temporal and spectral dynamics – leading to potential differences in terms of ecological impacts. Consequently, it is not recommended that such conclusions be drawn based on broadband source levels alone (particularly when the source level's bandwidth is unknown). This is because the spectra between vessels and dredging can substantially vary and some vessels (like smaller craft, such as recreational vessels or smaller ferries) can emit large amounts of energy in wider bandwidths than backhoe dredgers dredging soft sediments. However, the opposite can be true if the backhoe dredger is dredging gravel or coarse sand and the vessel spectrum is predominately low frequency. Higher energies in the upper frequencies can be more problematic for broadband odontocete cetaceans, such as bottlenose/common dolphins, or killer whales, where their hearing is more sensitive. Therefore, in order to robustly compare dredging noise with vessel noise, the hearing sensitivities of the receiver, as well as the environment must be considered.
- 4.8.4 In terms of backhoe dredgers, the loudest noise levels typically occur when the bucket impacts with the seafloor and is dragged through the sediment. During that phase of operation, 1/3 octave source levels peak at approximately 173 dB re 1 μ Pa @ 1m at centre frequency 315 Hz, with energy decreasing with frequency thereafter. For small and medium sized ferries (such as the North Shore-Downtown ferries) and recreational vessels in the Waitemata, noise emissions are far more broadband, containing

substantially more energy in the higher frequency bands compared to backhoe dredging. Therefore, the likely perception of noise from a backhoe dredger compared to vessels will be very different for killer whales, bottlenose/common dolphins and the unusually located leopard seal. This is because killer whales, bottlenose dolphins and common dolphins have highest hearing sensitivities around 20, 40 and 50 kHz, respectively, so the perception of the vessel noise will be greater compared to the backhoe dredger nearer the source. For these reasons, it is our opinion that the dredging noise from a small backhoe dredger will generate a lower level of effect compared to the vessels already operating in the area. The CNV Report concludes the same, however only based on broadband levels, which are problematic since the noise exposure and dose-responses to noise in marine mammals are a factor of both temporal and spectral dynamics of the noise in relation to the receiver's hearing sensitivity.

- 4.8.5 Overall, we agree that the noise of dredging does not require specific management procedures in this case.

4.9 *Management of Effects*

- 4.9.1 The CNVMP provides provisions for the monitoring of underwater noise inside the zones of influence identified in Underwater Effects Response. The rationale is to first ground truth the model by measuring the actual piling noise emissions at their commencement, followed by actual marine mammal monitoring during the works.
- 4.9.2 A schematic diagram of the hydrophone mooring is also provided in the CNVMP, which is the same mooring system used during the ambient noise monitoring set out in Section 3.3 of the CNV Report. However we recommend the data from measurements undertaken using this mooring system be reviewed given the unusually high ambient noise measurements in the monitoring data.
- 4.9.3 Overall, we agree with the methods specified in the CNVMP for the management of underwater noise effects.

5. Event Noise

5.1 *Overview*

- 5.1.1 The Events Report provides an assessment of the noise effects arising from the events that will occur during the 36th America's Cup, and any other America's Cup event within 10 years from the commencement of the consent. The proposal is premised on compliance with the relevant temporary activity provisions in the AUP, except for

exceedance of some of the low frequency noise controls for which consent to infringe is sought.

- 5.1.2 The nature and location of events is not known at this stage and the application allows for the events to be held in any location and on any day subject to compliance with the relevant controls in the AUP-OP for these events, except for the exclusion of crowd noise and omission of low frequency limits that have been proposed.
- 5.1.3 The application also includes an array of smaller loudspeakers on poles mounted in and around the events areas (locations not confirmed) that will play commentary, interviews and other low level media. These setups have been used for previous events in the area and provided the systems are subject to careful calibration and limiting to ensure that the cumulative noise levels of all speakers is compliant with the relevant AUP controls, they can work successfully. No details are provided for such systems at this stage.

5.2 *Event Controls*

- 5.2.1 Importantly, the events aspect of the proposal is proposed to be largely compliant with the relevant rules in the AUP excepting the infringements noted above for crowd noise and low frequency controls. We note that the relevant provisions in the AUP include detailed controls on event times, sound checks, notification to the Council and noise measurement requirements. We consider that these controls are important and can be relied upon such that detailed conditions of consent reflecting the same are not required. We do however support an advice note or condition that makes the references to and requirements of these rules in relation to the AC events very clear.
- 5.2.2 We have also proposed several conditions that clarify the rules and noise limits applying to the variety of different receivers in the area, depending on where the events are undertaken.
- 5.2.2 In numerous sections of the Events Report there are references to ‘the 15 allowable events’ for AC events. It is our interpretation of the rules that there are in fact 15 events permitted in the Wynyard Precinct, and 15 events permitted in the Viaduct Harbour Precinct, which in total would permit up to 30 events per year in the area covered by the resource consent application. It is not clear to us whether the application seeks to make use of the 15 available in each precinct or whether only 15 events are proposed in total for the proposal per year.

5.2.3 According to the Viaduct Harbour and Wynyard Precinct controls, the Council is required to keep a record of the Noise Events held each year to ensure that the maximum number is not exceeded. If granted, this resource consent would enable up to the permitted number of events in each precinct in accordance with the relevant AUP controls for each calendar year, but if other events have already been undertaken or scheduled then the allowance for this proposal would be reduced. Given that the AC36 event spans two calendar years (beginning December 2020), we note that the number of events held between 1 January 2020 and the beginning of AC36 will need to be carefully managed to ensure that sufficient allowance remains for the December phase of the event. Additionally, although of less importance to this process, if AC36 uses the full allowance of events between January and May 2021, there would be no further noise events permitted until 1 January 2022.

5.3 *Crowd Noise*

5.3.1 The Events Report proposes that crowd noise be excluded from the measurement and control of the noise limits to be applied to the events. We consider that crowd noise is included within the scope of the limits in the various sections of the AUP, so to exclude this may comprise a reason for consent in the event that cumulative noise level arising from crowds and amplified music / voice is above the relevant control.

5.3.2 Whilst there may be a low level of noise with some cheers from time to time from crowds of people located around the various spaces, we consider that it is unlikely that they could be loud or long enough to get close to the permitted noise limits on their own. In addition, if the amplified music / voice noise level is at or close to the limits specified in the proposed consent condition, it is extremely unlikely that crowd noise could be consistently high enough in level and long enough in duration to generate non-compliance with the controls.

5.3.3 On the basis that crowd noise would be very unlikely to generate non-compliance with the proposed conditions either on its own or in combination with amplified sound, and taking account of the difficulties associated with measuring and assessing crowd noise to determine compliance with the relevant noise limits, we agree that it is reasonable to exclude crowd noise from the controls in this case.

5.4 *Removal of Low Frequency Noise Limits*

5.4.1 As set out in section 4.3, the application seeks to remove the low frequency noise limits for events, replacing them only with a set of broadband noise controls (in terms of dBA, or L_{Aeq}) to control the overall noise levels.

5.4.2 We consider that such an approach is reasonable, except that the low frequency controls should only be removed for events where the PA system is outdoors. We note that once the bases are constructed, and given that there are other buildings in the area that could host indoor events, there exists the potential for events to be held indoors where the imposition of the low frequency controls in the Viaduct Harbour Precinct rules would be appropriate. Section 4.3 of the Events Report sets out the reasons why this is appropriate. We have recommended an amendment to the relevant proposed condition of consent to address this.

5.5 *Distributed Loudspeaker System*

5.5.1 Section 5.1 of the Events Report sets out that a distributed loudspeaker system will be installed, calibrated and controlled to ensure compliance with the non-event noise controls set out in the AUP. However there is no mention of the process or any condition of consent that would prescribe or require such a process in the Events Report.

5.5.2 We consider that whilst the concept of the distributed loudspeaker system is acceptable and that controlling the output to no greater than the relevant noise controls is appropriate, it is critical that the conditions of consent require the calibration and control of the system, and that the conditions also prescribe a process for doing so. A similar process was successfully used for the 2003 America's Cup where a loudspeaker system was installed on poles principally around the Viaduct Harbour area. We have recommended a condition of consent to address this.

5.6 *Compliance with Noise Controls*

5.6.1 The Events Report does not describe the process that will be undertaken to ensure that the noise generated by events will in fact be compliant with the proposed consent conditions. The noise level predictions in Table 3 of the report show marginal compliance based on a noise level of 96dB L_{Aeq} at 15m from the speaker stacks. The Events Report states that this noise level is typical for a "*moderate 'festival' sound system*". We consider that the reference noise level of 96dB L_{Aeq} at 15m is indeed moderate, and that for large events or where the music is moderately intense in nature such as pop/rock we consider that higher levels would be desired by the producers and audience. The desire to achieve higher levels will put compliance with the controls in jeopardy given the slim margin of compliance at moderate levels.

5.6.2 It is our view that the conditions of consent should include calibration of the sound system at sound check stage to ensure that compliance will be achieved throughout the

events, and that further monitoring should be undertaken during the events at the reasonable request of the Council.

5.7 *Legacy Events*

5.7.1 Section 5.4 of the Events Report sets out that legacy events would be assessed on a case by case basis. We understand that the application would only cover events associated with AC36 and any subsequent America's Cup event held within a 10 year period. The Events Report does not make the scope of the proposal clear in terms of legacy events, and which events the proposed noise limits (for this consent) would cover. We recommend that the proposed conditions be updated to be very clear about what events the conditions relate to.

5.8 *Effects of Events*

5.8.1 Overall, the noise effects arising from events associated with AC36 and any legacy America's Cup event would be substantially similar to any event that is permitted by the existing AUP provisions, despite the minor modifications to the controls suggested by the proposed conditions of consent. The events would generate noise levels that are audible throughout the entire area at noise levels that may be well above the standard day-to-day noise controls in the AUP. For the closest receivers the noise levels would be up to 75-80dB L_{Aeq} at times throughout the event, which is high enough to be disruptive to many activities.

5.8.2 However, events that generate noise levels as high as those proposed are anticipated by the AUP and would be consistent with its relevant objectives and policies.

5.8.3 As mentioned above, we consider it important that the full content of the rules is observed, and we have suggested that an advice note or addition to the proposed condition be included to make this clear.

5.9 *Noise from Operations*

5.9.1 The proposal includes activities defined as Operations in the proposed condition set that are not events or construction, and would therefore be subject to the normal underlying noise limits for the zone or precinct in which they are undertaken. Examples include the use of syndicate bases generally and for functions or hospitality, the distributed loudspeaker system, non-Noise Event commentaries, presentations or attractions, deliveries and movement of vehicles or machinery on the bases associated with the exercise of this consent. The Events Report does not deal with the effects of these

activities or compliance with the underlying noise controls, except for their mention in section 4.2.

- 5.9.2 The AUP contains noise controls for Operations noise between sites on land, and where the noise is generated in the CMA and received in a residential or rural zone. In this case, the noise of Operations in the CMA as it might affect receivers in the CMA is not controlled by the AUP. An example would be Operations undertaken on the Hobson Wharf base as received at the Princes Wharf apartments. We have recommended a condition that includes noise limits for such circumstances, based on those applying to the Business – City Centre zone provisions.

6. Conditions of Consent

- 6.1 The matters raised in this review require a number of amendments and additions to be made to the proposed conditions of consent. We have provided a marked up version of the applicant's conditions in **Appendix A** to this review.
- 6.2 We have considered the matters that have been raised in submissions that relate to the conditions of consent when providing our input and the amendments sought by submissions that we support have been suggested.

7. Submissions

- 7.1 We have reviewed the submissions as they relate to vibration and the underwater and airborne noise effects arising from construction works, as well as submissions relating to events noise.
- 7.2 We consider that the matters raised by the submissions have been adequately addressed or described in either the application reports or in this review. Where submissions raise issues with the proposed conditions of consent, we have suggested amendments.
- 7.3 Below we provide specific comments on the following submissions where the issue has not already been addressed in the application documents or our review, and where the issue is within the scope of this review. Submissions relating to the process for certifying or commenting on management plans are not addressed here:

Submission 11 – Lance Wiggs

- 7.4 The submitter requests consideration of a wind direction and weather adjustment. In accordance with the relevant New Zealand Standards (as referenced in the AUP and consent conditions) noise measurements are to be made in the “meteorological window”. This includes all upwind and downwind conditions (up to 10 knots of windspeed) and requires that the results are reported without adjustment for wind. This means that if the receiver is downwind of the noise source the noise levels at source may have to be reduced to ensure compliance with a noise limit.

Submission 39 – The Point Body Corporate 199318

- 7.5 The submitter seeks amendment of the rule references in the proposed condition for the control of event noise, and an advice note making it clear that all other provisions of the relevant AUP standards are met for events. We agree with these suggestions as set out in our review.

8. Summary

8.1 Submissions

We consider that the matters raised by the submissions have been adequately addressed or described in either the application reports or in this review. Where submissions raise issues with the proposed conditions of consent, we have suggested amendments.

8.2 Conditions

The matters raised in this review require a number of amendments and additions to be made to the proposed conditions of consent. We have provided a marked up version of the applicant’s conditions in **Appendix A** to this review.

8.3 Airborne Construction Noise

- 8.3.1 The CNV Report states that the noise generated by the works will comply with the CNV standards for most of the time, but that some activities are predicted to exceed for brief periods, and only during the day. Whilst the proposal includes construction works at night, the CNV Report sets out that no particularly noisy activities can be undertaken at night and that the CNV standards should be complied with during those times. Resource consent is sought for infringement of the construction noise controls. We generally agree with the noise level predictions and the assumptions they are based on, including

the reference source levels, construction equipment and methods to be used and reductions for screening where it is practicable.

- 8.3.2 Taking into account the significant number of residential receivers and hospitality receivers with open facades and outdoor dining areas close to the works and the fact that Rule E25.6.27 (with lower noise limits) applies to all works that affect receivers not in the City Centre zone, we consider that a lower set of Project Standards (than that proposed) would provide a more appropriate set of controls for the project. We have recommended a set of Project Standards that in our opinion are more appropriate, and similar to those applied to a number of other large projects in already reasonably noisy areas. These are presented in Section 2.2 of this review.
- 8.3.3 Whilst the CNV report contains brief descriptions of the noise level infringements and durations, it does not contain a detailed description of the effects that would be experienced by the receivers close to the various works areas. It is our opinion that in order to fully understand the nature of the effects that the project will generate, a more detailed description of the way that people will react to construction noise levels up to and above the CNV standards is necessary. Table 1 provides a description of effects and noise levels that can be referred to.
- 8.3.4 In our opinion, the effects can be summarised as ranging from being no greater than the current level of noise effects experienced in the area, to periods of up to several weeks for many receivers where the effects will be significant for considerable periods of the day. Even with good management and the application of the BPO, we consider that the effects on the Maritime Museum and its associated facilities (cafe and conference / function centre) will be significant.

8.4 *Construction Vibration*

- 8.4.1 The CNV Report provides an overview of the relevant vibration criteria and sources of vibration for the construction phase, and states that activity likely to give rise to most or all of the vibration effects will be piling. The CNV Report goes into considerable detail on the effects on the Maritime Museum, being the closest receiver to the works. We note that Regional Facilities Auckland (as the owner/operator of the Maritime Museum) has provided written approval to the project in principle, but nonetheless identifies some potential issues in its letter. We have not treated this letter as a 'written approval' such that the effects on them should be disregarded.
- 8.4.2 The CNV Report sets out that the vibration from piling is not likely to exceed the DIN4150-3 guideline criteria, except at the Maritime Museum, where localised

infringements are possible. For the other receivers surrounding the project, vibration from piling would be lower, but still perceptible and potentially disturbing. The CNV Report recommends that such effects be managed through the CNVMP, including giving prior warning to the receivers and monitoring of vibration where necessary.

8.4.3 The project vibration standards are not included in the applicant's proposed conditions. We consider that the project vibration standards should be included as part of condition 1 with a requirement to comply with them as far as is practicable, along with an additional requirement in condition 2 that would require additional management through the CNVMP. The CNV Report does not include any vibration predictions for the various receivers. It is not therefore readily possible to determine the likely nature and extent of vibration effects, particularly the amenity effects for proximate workplaces and hospitality venues. We have prepared Table 2 in this review to assist with understanding the subjective perceptions of vibration for the range of levels that could be expected to arise from this project.

8.4.4 The construction vibration effects can be summarised as being at level that will be perceivable and potentially annoying to most receivers throughout several weeks or months of the project for each receiver, with short periods where it may become disruptive at the closest receivers. It is our opinion that the effects on the Maritime Museum will generate significant disruption to its activities, and very careful attention will be required to ensure the effects are managed as best as they can be, including through communication, monitoring, securing loose or fragile items and scheduling of work.

8.5 *Underwater Construction Noise*

8.5.1 The CNV Report includes an underwater noise assessment dealing with the potential effects of the underwater noise generated by vibratory piling and dredging noise on marine mammals. Fish were not considered in the assessment based on the proposal being within the Waitemata Harbour, where fish diversity and abundance is considered low. Section 4.3.2 of the CNV Report and the Underwater Effects Response state that the species of interest in the area are likely to comprise common and bottlenose dolphins, Orca, leopard seals, fur seals. We generally agree with the assessment of the species of interest and the frequency weightings adopted for the assessment.

8.5.2 Section 3.3 of the CNV Report sets out the methods for carrying out and results of a series of underwater noise measurements that were undertaken to characterise the underwater noise environment in the vicinity of the project. We consider that the results of the ambient underwater noise measurements are too high. Our own measurements in

a similar position to MP2 (as described in the CNV Report) show a considerably quieter environment.

- 8.5.3 The CNV Report provides a brief introduction into the piling activity and the noise levels expected, and states that noise emissions do vary due to a number of factors, which we agree with. We agree with the modeling methods generally, and we expect that the outputs are sufficiently accurate for purpose.
- 8.5.4 We note that the CNV Report does not provide an assessment of masking effects for this proposal. We consider this to be unusual, but for the reasons set out in this review and the CNV Report it is acceptable.
- 8.5.5 In general terms we agree with the Underwater Effects Response and the revisions it makes to the CNV Report, and although we consider that some technical issues remain, they have no appreciable effect on the substantive conclusion and proposed management regime.
- 8.5.6 The CNVMP provides provisions for the monitoring of underwater noise inside the zones of influence identified in Underwater Effects Response. The rationale is to first ground truth the model by measuring the actual piling noise emissions at their commencement, followed by actual marine mammal monitoring during the works. Overall, we agree with the methods specified in the CNVMP for the management of underwater noise effects.
- 8.5.7 In this case the potential adverse effects can be broadly categorised as ranging from:
- a. No effects where the noise levels from piling becomes inaudible outside of the Waitemata Harbour;
 - b. A range of behavioural effects including changes to feeding, breathing, nursing, vocalisation and navigation and avoidance of the area generally in the area from Bean Rock / North Head to within a few hundred metres of the piling activity;
 - c. Temporary Threshold Shift (TTS) at close proximity to the piling as defined by the solid and dashed orange contours in Figures 6 and 7 of Appendix D to the CNV Report (this is the primary zone from which marine mammals must be excluded during piling works); and
 - d. Permanent Threshold Shift (PTS) or injury in the small area defined by the red contours in Figures 6 and 7 of Appendix D to the CNV Report.

8.6 *Event Noise*

- 8.6.1 The Events Report provides an assessment of the noise effects arising from the events that will occur during the 36th America's Cup, and any other America's Cup event within 10 years from the commencement of the consent. The nature and location of events is not known at this stage and the application allows for the events to be held in any location and on any day subject to compliance with the relevant controls in the AUP, except for the exclusion of crowd noise and omission of low frequency limits that have been proposed. The application also includes an array of smaller loudspeakers on poles mounted in and around the events areas (locations not confirmed) that will play commentary, interviews and other low level media.
- 8.6.2 On the basis that crowd noise would be very unlikely to generate non-compliance with the proposed conditions either on its own or in combination with amplified sound, and taking account of the difficulties associated with measuring and assessing crowd noise to determine compliance with the relevant noise limits, we agree that it is reasonable to exclude crowd noise from the controls in this case.
- 8.6.3 The application seeks to remove the low frequency noise limits for events, replacing them only with a set of broadband noise controls (in terms of dBA, or L_{Aeq}) to control the overall noise levels. We consider that such an approach is reasonable, except that the low frequency controls should only be removed for events where the PA system is outdoors.
- 8.6.4 It is our view that the conditions of consent should include calibration of the distributed loudspeaker and event sound systems to ensure that compliance will be achieved throughout the events.
- 8.6.5 Overall, the noise effects arising from events associated with AC36 and any legacy America's Cup event would be substantially similar to any event that is permitted by the existing AUP provisions, despite the minor modifications to the controls suggested by the proposed conditions of consent. The events would generate noise levels that are audible throughout the entire area at noise levels that may be well above the standard day-to-day noise controls in the AUP. For the closest receivers the noise levels would be up to 75-80dB L_{Aeq} at times throughout the event, which is high enough to be disruptive to many activities.

APPENDIX A – NOISE REPORT

Amended conditions

Definition of Terms

“Noise Event” means the planned use of a space or building involving amplified sound being broadcast to people and where the noise levels (excluding crowd noise) will not comply with the noise limits in Condition 194C.

Construction Noise and Vibration

109. Construction noise shall comply with the following Project Standards unless otherwise provided for in the CNVMP (refer Condition 110).

<u>Days</u>	<u>Times</u>	<u>LAeq (30min)</u>	<u>LAmax</u>
Monday to Friday	0630—2230	75	90
Saturday	0700—2300	80	90
Sunday	0900—1900	65	85
All other times (night-time)		60	75
<u>Monday to Saturday</u>	<u>0700 to 2230</u>	<u>75</u>	<u>90</u>
<u>Sunday</u>	<u>0900 to 1900</u>	<u>65</u>	<u>80</u>
<u>All other times</u>		<u>60</u>	<u>75</u>

- 109A. Vibration arising from construction activities which may affect people and buildings shall be measured in accordance with ISO 4866:2010 Mechanical vibration and shock – Vibration of fixed structures – Guidelines for the measurement of vibrations and evaluation of their effects on structures, and shall comply with the Category A vibration standards in the table below:

<u>Receiver</u>	<u>Details</u>	<u>Category A</u>	<u>Category B</u>
<u>Occupied dwellings, hotels and motels</u>	<u>Night-time 2000h - 0630h</u>	<u>0.3mm/s PPV</u>	<u>1mm/s PPV</u>
	<u>Daytime 0630h - 2000h</u>	<u>1mm/s PPV</u>	<u>5mm/s PPV</u>
<u>Other occupied buildings</u>	<u>At all times</u>	<u>2mm/s PPV</u>	<u>5mm/s PPV</u>
<u>All other buildings</u>	<u>At all times</u>	<u>5mm/s PPV</u>	<u>Tables 1 and 3 of DIN4150-3:1999</u>

- 109B. Vibration from construction activities may only exceed the Category A standards subject to compliance with management procedures specific to each activity and receiver set out in the CNVMP required by Condition 110.

109C. Vibration may only exceed Category B standards at existing buildings located on Hobson Wharf and within the CMA, and only subject to compliance with the management procedures set out in the CNVMP required by Condition 110.

110. At least five (5) working days prior to Commencement of Construction, the consent holder must update the Draft Construction Noise and Vibration Management Plan (CNVMP) included in the consent application and submit it to the Team Leader Compliance Monitoring – Central Monitoring for certification. The purpose of the CNVMP is to provide a framework for the development and implementation of the Best Practicable Option (BPO) for the management of all construction noise and vibration effects, and additionally to define the procedures to be followed when the noise and vibration standards in the CNV conditions are not met following the adoption of the BPO. The CNVMP shall be in general accordance with the draft Construction Noise and Vibration Management Plan, (prepared by Marshall Day Acoustics Rn 007 r05 20171213, Application Document 23) with any changes from that revision to be marked up with tracked changes and shall include:

- a) A description of the works;
- b) Hours of operation, including a specific section on works permitted at night, incorporating clear definitions of the works permitted to be undertaken at night;
- c) Contact details for staff responsible for implementation of the CNVMP;
- d) The construction noise and vibration performance standards for the project;
- e) Minimum separation distances from receivers for plant and machinery where compliance with the construction noise and vibration standards is achieved;
- f) Identification of affected sensitive receivers where noise and vibration performance standards apply;
- e)g) A specific section setting out the predicted noise and/or vibration levels, mitigation, monitoring and management measures (including communication with stakeholders) that will be adopted for works which cannot comply with the project standards specified in Conditions 109 and 109A. This section shall include the information above for each activity that cannot practicably comply. This section may be in the form of site specific plans which would require certification from the Council before the works can proceed.
- f)h) Management and mitigation options, including the relevant measures from Annex E of NZS 6803:1999 "Acoustics – Construction Noise" and Appendix B of DIN 4150 3:1999 "Structural vibration – Part 3 Effects of vibration on structures", and a procedure to manage the underwater noise effects on marine mammals from impact and vibratory piling methods, including defined marine mammal management zones, marine mammal observation procedures, measurements of underwater noise at the commencement of vibratory and impact piling to calibrate underwater noise model, and procedures to adopt when marine mammals are present inside the management zones.
- g)i) Methods and frequency of monitoring and reporting; and
- j) Communication, consultation and complaints response protocol, including specific provisions for determining the times that receivers are sensitive to noise and how high noise and vibration works can be scheduled around those times (including residential, office, hospitality and tourism activities).

110A. In all cases, piling work may not commence until the absence of marine mammals inside the effects management zones identified in the CNVMP is confirmed. All piling work shall cease in the event that a marine mammal is detected within the effects management zones identified in the CNVMP.

Event Management Plan

181. The purpose of an EMP is to provide the overall mitigation of the traffic, pedestrian movement, emergency management, noise and lighting related effects of the Event.

183.

g) A Noise Event Management Plan (NEMP) that shall:

- (i) Set out procedures for the calibration of all sound systems prior to each Noise Event to ensure compliance with the noise limits in condition 194 at all times for all Noise Events;
- (ii) Address all requirements of Rule I211.6.1 for Noise Events in the Viaduct Harbour Precinct, and Rule I214.6.4(4) for Noise Events in the Wynyard Precinct (except that the noise limits in those rules shall be replaced with those set out in condition 194);
- (iii) Provide contact details for the person on site responsible for noise management; and
- (iv) Establish procedures for monitoring of noise at the reasonable request of the Council.

Operational Noise

194. The noise from all Noise Events (excluding crowd noise) undertaken outside a building shall comply with the requirements of Auckland Unitary Plan - Operative in Part (AUP OIP) Standards I214.6.4 (4) and I211.6.1, except that the noise limits in Standards I214.6.4 (4) (a) and I211.6.1 (a) (ii) shall be replaced with the following:

- a) High noise events: 82 dB L_{Aeq} and 90 dB L_{A01}
- b) Medium noise events: 72 dB L_{Aeq} and 80 dB L_{A01}

194A. Where a Noise Event is undertaken inside a building, the following noise limits shall apply in addition to those specified in Condition 194:

- (a) 76dB L_{eq} at 63Hz 1/1 Octave Band;
- (b) 76dB L_{eq} at 125Hz 1/1 Octave Band.

194B. The noise limits applying to all Noise Events must be complied with when measured and assessed as the incident level, 1m from the facade of any building not authorised by this consent that is occupied during the event.

194C. The cumulative noise from all activities associated with this consent including all Operations except for Noise Events and construction works, shall comply with:

- (a) Parts (2) and (5) of Rule I214.6.4 for activities on land in the Wynyard Precinct;
- (b) Rule E25.6.8 for activities on land in the Business – City Centre Zone (includes the Viaduct Harbour Precinct);
- (c) Rule E25.6.22 for all activities in the CMA, where the noise limits of the receiving zone shall apply to all receivers on land on the south side of the Waitemata Harbour;
- (d) Rule E25.6.14 for all activities in the CMA where the noise is received on any site in a residential zone on the northern side of the Waitemata Harbour; and
- (e) The following noise limits for any activity in the CMA where the noise is measured and assessed as the incident level 1m from the facade of any space in the CMA occupied for residential purposes:

<u>7am to 11pm</u>	<u>60dB L_{Aeq}</u>
<u>11pm to 7am</u>	<u>55dB L_{Aeq}</u>
	<u>65dB at 63Hz L_{eq} 1/1 Octave Band</u>
	<u>60dB at 125Hz L_{eq} 1/1 Octave Band</u>
	<u>75dB L_{Amax}</u>

- (f) The following noise limits for any activity in the CMA where the noise is measured and assessed as the incident level 1m from the facade of any occupied space in the CMA not covered by Condition 194C(e) and not authorised by this consent:

<u>7am to 11pm</u>	<u>60dB L_{Aeq}</u>
<u>11pm to 7am</u>	<u>60dB L_{Aeq} and 75dB L_{Amax}</u>

194D. Prior to the use of any distributed loudspeaker system designed for playing commentaries, interviews, promotional material or any other amplified sound to the public, the consent holder shall provide a report from a suitably qualified acoustics expert setting out sufficient detail to demonstrate that the speaker system(s) have been calibrated by noise measurements in accordance with NZS6801:2008 *Acoustics – Measurement of environmental sound* to ensure that the cumulative noise level from the operation of the speakers and all other Operations (excluding crowd noise) will be compliant with the noise limits in condition 194C at all times. The speakers may not be used for any purpose other than the calibration until the report is certified by the Council.

APPENDIX I

ROB VAN DE MUNCKHOF

HAZARDOUS SUBSTANCES REPORT

Auckland Council
Via email

Attention: Tracey Grant

Dear Tracey

**Americas Cup 36 - Technical Memo Hazardous Substance Risk Assessment -
BUN60318372****1 Introduction**

1.1 I have undertaken an assessment of the risks to the proposed America's Cup bases and events associated with the existing hazardous facilities at Wynyard Point. The following application documents have been provided and reviewed as part of this assessment:

- (a) America's Cup Wynyard Hobson – Application for Resource Consent: Assessment of Environmental Effects, dated 13 April 2018, prepared by UNIO on behalf of Panuku Development Auckland (**AEE**) (Application Document 4);
- (b) Quantitative Risk Assessment, America's Cup Proposal Wynyard Hobson Option, Effect of Discontinuing Stolthaven Hamer St and BST Operations, dated 6 April 2018 prepared by Sherpa Consulting Pty Limited (**Sherpa QRA**) (Application Document 14);
- (c) America's Cup, Fire and Evacuation Assessment, Resource Consent Application, Wynyard Hobson, date April 2018 prepared by Beca Limited (**Beca Assessment**) (Application Document 29);
- (d) America's Cup Location – Impact Assessment Hazardous Substances Regulations, date April 2018, prepared by 4Sight Consulting (**4Sight Assessment**) (Application Document 15); and
- (e) America's Cup Wynyard Hobson, Proposed Conditions of Consent, prepared by Panuku Development Auckland (Application Document 7).

2 Proposed works

2.1 Panuku Development Auckland (**Panuku**) has applied for consent to develop seven America's Cup Bases for the America's Cup event, and for associated race events preceding the main America's Cup Event, and for any subsequent events. Five of the bases are proposed to be located on Wynyard Point and Wharf (Bases C-G), one base within the existing Viaduct Events Centre building (Base A), with the remaining base to be located on an extension to Hobson Wharf (Base B). The five bases on Wynyard Wharf are located within Sub-Precinct F in the Wynyard Precinct Plan in Chapter I of the Auckland Unitary Plan – Operative in Part (**AUP**). The sub-precinct matches the extent of the hazardous industry toxic injury risk contour identified as part of an initial quantitative risk assessment, and the recommendations in a 2011 addendum,

carried out by Sherpa in 2010-11 (**initial risk assessment**). The initial risk assessment was undertaken by Sherpa to support the development of the Precinct Plan. The remaining two bases (Bases A and B) on Halsey Wharf and an extension to Hobson Wharf are outside of the contours and therefore, an assessment of the risk from hazardous facilities to these bases is not required.

- 2.2 The extent of the proposed works and base locations on Wynyard Wharf is outlined in detail within the AEE prepared by UNIO. Generally, it comprises the area of land between the public park that runs adjacent to Jellicoe Street and Hamer and Brigham Streets to the north, including 8-34 Brigham Street, 56 Brigham Street and 90 Brigham Street. The proposed development area extends to the boundary of the existing Stolthaven North bulk chemical facility.
- 2.3 The proposed base developments comprise the construction and operation of five America's Cup Syndicate Bases. The bases will include a range of activities and amenities including boat sheds, rig storage areas, team facilities, administrative areas, event hosting, merchandise sales and public interactive areas.
- 2.4 In addition to the proposed bases, four new breakwaters are proposed. One of the new breakwaters will extend to the east from Wynyard Wharf. It is also located within the hazardous industry toxic injury risk contour. The breakwater will provide shelter for boats moored within a new basin located between Wynyard and Halsey Wharfs. The breakwater will also provide public viewing access to the harbour.
- 2.5 The application also includes the proposed America's Cup Events. This will include the America's Cup itself as well as a number of race events preceding the main America's Cup Event. It is expected that there will be a range of events including evening events, week long events as well as larger weekend events. The application also seeks to provide for future defence of the America's Cup (AC37 and AC38).

3 Wynyard Precinct Plan

- 3.1 As part of the development of the Wynyard Precinct Plan, the continued operation of the existing hazardous industries on Wynyard Point was considered including an assessment being carried out of the potential risk from the hazardous facilities to future changes in land use.
- 3.2 To support the precinct plan, the initial risk assessment was prepared by Sherpa (June 2010), which considered the presence of the following hazardous facilities in the area:
 - (a) Stolthaven North;
 - (b) Stolhaven Hamer Street;
 - (c) BST Limited; and
 - (d) Sanfords.
- 3.3 The findings of the initial risk assessment were used to establish an overall plan, which was divided into different sub-precincts based on the modelled risks from the hazardous facilities. The activities that are provided for within each sub-precinct differs depending on the level of risk assessed. The entire area of Wynyard Point from the north of Jellicoe Street was identified as Sub-Precinct F, where there was an increased risk to people from hazardous facilities. Activity Table I214.4.1 of the AUP identifies a large of number of activities as non-complying within Sub-Precinct F due to the increased risk and the potential for those non-complying activities to encourage people to congregate. Activities including certain events, food and beverage, offices

(not part of a marine activity), retail and public amenities are non-complying under Activity Table I214.4.1.

- 3.4 As discussed above, the original precinct plan was developed based on the initial risk assessment which included the Stolthaven Hamer St and BST facilities. Those facilities will no longer be present as part of the proposal.

4 Technical Review

- 4.1 The application by Panuku is supported by a number of technical assessments that address different aspects of the proposal from a hazardous substance risk assessment perspective, including:
- (a) The Sherpa QRA, which looks at the change in risk profile compared to the initial risk assessment (outlined above) associated with the proposal;
 - (b) The 4Sight Assessment, which considers the potential effects the proposal may have on Stoltaven's compliance with the Health & Safety at Work (Hazardous Substances) regulations, and also considers the potential impacts associated with the Dangerous Goods (DG) Tanker (which is not included in the Sherpa QRA Scope); and
 - (c) The Beca Assessment, which considers the potential for safe evacuation in the event of an incident, including a hazardous substance release or fire.
- 4.2 I have reviewed each of the technical assessments and discuss them below. The technical reports use a significant amount of jargon, and this technical memo should be read in conjunction with the technical assessments.

Quantitative risk assessment report

- 4.3 The Sherpa QRA (April 2018) has been updated to reflect the removal of BST and the Stolthaven Hamer Street hazardous facilities. The scope of the Sherpa QRA includes:
- (a) a revised individual fatality risk profile for the Wynyard Point without Stolthaven Hamer St and BST Terminals operating; and
 - (b) an updated societal risk assessment for the proposal based on the revised fatality risk profile.
- 4.4 I note that the Sherpa QRA does not consider risks associated with the DG tanker ship loading/unloading. Instead, this is addressed in the 4Sight Assessment.
- 4.5 The Sherpa QRA has used the same approach as the initial risk assessment undertaken for the Wynyard Quarter Precinct and is based on the guidance in the NSW Department of Planning and Environment, Hazardous Industry Planning Advisory Papers (**HIPAP**) (HIPAP 2011). I consider this is appropriate in the absence of any New Zealand specific criteria or guidance for assessing risks from hazardous industries. This enables a direct comparison between the results of the Sherpa QRA and the initial risk assessment.
- 4.6 The Sherpa QRA presents the original individual fatality risk contours and the revised individual risk contours, that is, without the Stolthaven South Hamer Street or BST Terminals (Figures 2.1 and 2.2 of the Sherpa QRA). The contours indicate that the removal of the BST and Stolthaven Hamer St sites eliminates the fatality risk contours which overlaid Bases E, F and G. The risk contours associated with the Stolthaven North Facility are unchanged, including the 1×10^{-9} contour which sets the maximum extent of the potentially risk affected criteria and was used as the original basis for the Sub-Precinct F extent of hazardous industry toxic injury risk.

- 4.7 The Sherpa QRA compares the modelled fatality risk contours against the intended land use for the Bases and identifies that the criteria are met for all base locations. The risk criteria are established based on an individual fatality risk and do not consider the number of people who may be present. The applicable risk criteria selected in the Sherpa QRA for fatality have been selected based on commercial land use for all Bases, which sets a criterion of 5 in a million (risk in a million per year). The HIPAP guidance for commercial developments includes retail centres, offices and entertainment centres. I consider the use of the criteria for commercial developments is appropriate for the Bases. I note, that even if a more conservative risk criteria were used (such as that for residential and motels), the risk criteria for all Bases would still be met.
- 4.8 The Sherpa QRA has also assessed the societal risk associated with the proposal. The societal risk is assessed based on the impact on a society and includes consideration of both fatality and injury risks. The societal risk takes into account the extent of the population who may be affected and exposure to vulnerable groups such as children.
- 4.9 The societal risk has been assessed based on the following populations:
- (a) between 70 and 110 people present at each base during normal daytime activities;
 - (b) between 8 and 11 people present at each base during normal night-time activities;
 - (c) between 370 and 410 people present during a base event;
 - (d) 25 people present at retail areas associated with the bases;
 - (e) 200 people present spread over the bases during race day events; and
 - (f) 100 people present on the new breakwater during events.
- 4.10 I note that a number of submissions have been made to permit up to 500 people at each base for events. As the risk assessment was undertaken based on the above populations, the implications of increasing the population cannot be determined based on the current information. Any increase in population would be expected to increase the societal risk, but whether this is significant or not would need to be confirmed as part of an updated assessment. The societal risk assessment has also assumed that no people are permitted north of the bases during race day events, and that measures are undertaken to restrict public access to Wynyard Point during race events.
- 4.11 The societal risk has been assessed based on the above populations and compared to the current societal risk. The societal risk assessment is plotted with the cumulative frequency against the number of number of people and compared to three zones which represent: the negligible region, the as low as reasonably possible (**ALARP**) region, and the intolerable region. Where the line is below the negligible region, the HIPAP guidance outlines that the risk is considered acceptable and further consideration of additional controls or risk reduction measures is not typically required. The middle region is the ALARP region where the risk is tolerable provided the proposal has a net benefit and all practicable steps are taken to reduce the risk.
- 4.12 The Sherpa QRA report indicates that the societal risk sits within the lower end of the ALARP region. The Sherpa QRA report shows that the societal risk associated with the proposal is slightly greater than the current societal risk but is still in the lower end of the ALARP region. I consider that the Sherpa QRA indicates that the change in risk between the current situation and the proposal is insignificant. Having said that, the societal risk assessment is sensitive to changes in the population assumptions made in the Sherpa QRA. Therefore, if the number of people accessing the bases and area is higher than assessed, then the societal risk is also likely

to be greater. The proposed consent conditions which include restrictions on the numbers at the bases and the methods to minimise public access are crucial to ensure the societal risks are acceptable. I consider, without the proposed conditions there is a high likelihood that the populations assessed will be exceeded which could result in an unacceptable level of risk.

- 4.13 The Sherpa QRA includes a number of recommendations to ensure the risk is reduced as low as reasonably practicable. These include requirements to design the bases to withstand an external fire so as to ensure there is sufficient time to evacuate people and to ensure egress and evacuation routes are considered and established. While I agree with the proposed measures, I consider that the design of the bases should consider fire and the potential for air conditioning and ventilation systems to bring toxic vapours into the buildings. As such, I have suggested amendments to the proposed conditions.

5 Hazardous substance regulations impact assessment report

- 5.1 4Sight have reviewed the impact the proposal may have on the existing Hazardous Substances Controls zones and hazardous atmosphere zones required by the Stolthaven North Facility under the Health and Safety at Work (Hazardous Substances) Regulations. The 4Sight Assessment also considers the requirements for the DG tanker under AS 3846:2005 The Handling and Transport of Dangerous Cargoes in Port Areas.
- 5.2 The key requirements identified in the 4Sight Assessment include the requirements for separation from public places, protected places, and to establish hazardous area zones. The 4Sight Assessment has identified that the current extent of the protected place zone extends over the northern edge of the carpark where the new road is proposed adjacent to Base C. The definition of a protected place does not include a road provided it is not an area where people are likely to congregate. Therefore, the proposal does not change the existing compliance status of the Stolthaven North Facility as it will already extend over the existing carpark area.
- 5.3 The 4Sight Assessment also addresses the potential risk associated with the DG tanker at Wynyard Wharf when berthed and loading/ unloading. The 4Sight Assessment identifies that the outer hazardous atmosphere zones do not encroach onto the bases or building footprints, but has identified that further risk assessment and controls are recommended for the bases abutting the ignition inclusion zones. The report indicates that their concern is that activities abutting the zone may create an ignition source within the zone. The report does not outline whether these are related to specific activities or general concerns, but considers that additional controls may be required. Due to the concerns raised I agree that a more detailed assessment should be undertaken to understand the extent of risk, identify activities which could enter the relevant zones and whether additional controls are required to manage the risks.
- 5.4 I note that the proposed conditions do not include a requirement to undertake a risk assessment of the berthing and loading/unloading of the DG tanker but Condition 173 does require measures to be put in place to restrict public access to the Wynyard East Breakwater when the DG tanker is berthed. I have proposed an additional condition requiring an assessment of the risks and based on the outcome identify additional controls if required.

6 Fire and Evacuation Assessment report

- 6.1 Beca have prepared a fire and egress assessment for the proposed America's Cup infrastructure. The Beca Assessment outlines that operational emergency management plans will need to be developed for the bases and during events. The assessment does indicate that discussions with

Fire Emergency New Zealand (**FENZ**) have identified concerns about large numbers of people being present during major event days. The current conditions seek to restrict access by the public to the northern half of Wynyard Point and the team bases, which goes towards mitigating the FENZ concerns. The Beca Assessment does consider that the safe egress from the bases can be achieved provided the occupancy is managed to the levels included in the Sherpa QRA.

- 6.2 I support the requirement for an Emergency Evacuation Plan to be prepared and implanted prior to the bases being occupied.

7 Conclusion

- 7.1 The applicant has submitted a QRA which assesses the level of risk to the proposed development from existing hazardous facilities in the area. This has concluded that the individual fatality risk at the bases meets the relevant risk criteria, and the proposed change in societal risk is very similar to the current societal risk level and remains acceptable subject to the recommendations in the Sherpa QRA report. The applicant has also considered the ability to evacuate the site in the event of an incident and has confirmed that the number of people proposed at the bases and during events can be safely evacuated. Further, the proposed bases are outside of the extent of any controlled zones or hazardous atmosphere zones required for the Stolthaven North bulk tanks and the DG Tanker.

- 7.2 I consider that, subject to the above, and the following recommendations included within the associated reports, that any change to the risk to the proposal from existing hazardous facility is insignificant and can be managed:

- (a) Limiting the number of people within the Bases to the numbers outlined in the Sherpa QRA;
- (b) Restricting public access to the northern end of Wynyard Point during events;
- (c) Restricting public access to the Wynyard Wharf Breakwater while the DG tanker is berthed;
- (d) Incorporation of mitigation measures for incorporation into the building design including fire protection and ventilation design to provide for safe evacuation;
- (e) The preparation of and implementation of emergency evacuation plans for the bases and during events;
- (f) Training of staff and marshals around the requirements and evacuation procedures in the event of an incident;
- (g) Undertaking a risk assessment of the potential effects associated with activities at the bases entering the hazardous atmosphere and ignition management zones during berthing or loading/ unloading of the DG tankers and implementation of any additional mitigation measures required.

8 Review of submissions

- 8.1 I have reviewed the submissions made on the application. Four submissions have been made which relate to the assessment of risk associated with hazardous substances including America's Cup Event Limited, the Challenger of Record America's Cup 36, Team New Zealand Limited and the Royal New Zealand Yacht Squadron. The four submissions are principally the same and request the same outcomes.

- 8.2 The submitters support the application but have requested condition 171 to be amended to allow up 500 people to be allowed at each team base at a time.

- 8.3 As discussed in Paragraph 4.10, the Sherpa QRA has been undertaken based on a number of assumptions of the likely populations. Without additional assessment of the impact of increasing the populations to those proposed by the submitters, any changes to the conditions cannot be supported at present as the increase in the associated societal risk and implications of the increase are unknown.

9 Recommended conditions

- 9.1 As part of the application, Panuku has recommended a number of consent conditions. I have reviewed the proposed conditions and have recommended a number of changes. My recommended changes are in bold below.
- 9.2 I recommend that proposed condition 170 be amended as follows, for the reason explained in paragraph 4.13 above:

Condition 170

Bases C-D shall be assessed by a chartered engineer to any particular requirements for fire resistance to an external hydrocarbon fire **and protection from toxic vapour releases**. The design to be adopted shall ensure that there is sufficient time for an alarm and evacuation to occur without structural compromise or ignition of the building occurring and if necessary shall include:

- a) Design details and materials used to provide fire resistance for the walls, floors and roofs, including detail of the fire resistance of any windows, doors or entranceways fronting Hamer Street;
- b) Details regarding the need and suitable location of a sensor (or sensors) to detect a toxic vapour release from the Stolthaven Wynyard (north) facility;
- c) A requirement that occupiers of Base Buildings C-D cannot fit mechanical ventilation systems (such as air conditioning units) that draw air from outside the building unless the system can be automatically shut down in an emergency;
- d) Location of entrances, access points to the bases and fencing fronting Hamer Street; and
- e) Design details of the emergency access route along the eastern side of the Base Buildings including openable gates to ensure unimpeded access southwards during an emergency.

- 9.3 I recommend that condition 171 be amended as follows as this reflects the basis of the societal risk assessment included in the Sherpa QRA as explained in paragraph 4.9.

Condition 171

The total number of people at any one time at Bases C and D shall not exceed 410 persons per base **and at Bases E to G shall not exceed 370**.

- 9.4 I recommend that condition 175 be amended as follows (again for the reason explained in paragraph 4.13 above):

Condition 175

The Emergency Evacuation Plan shall include provisions to cater for an emergency which may arise from a fire, explosion, or the release of toxic vapour occurring on the Stolthaven

Wynyard (north) hazardous substances facility or their external product lines to Wynyard Wharf. The EEP shall also:

- a) Include an evacuation scheme prepared in accordance with the Fire and Safety Evacuation of Buildings Regulations 2006 or any amendment to this document which shall also take into account any additional items which may arise and are considered appropriate in respect of any hazardous incident associated with a fire, explosion, or the release of toxic vapour occurring on the Stolthaven Wynyard (north) hazardous substances facility or its external product lines to Wynyard Wharf. In particular, consideration shall be given to:
 - (i) Alarm systems;
 - (ii) Details regarding the need and suitable location of a sensor (or sensors) to detect a toxic vapour release from the Stolthaven Wynyard (north) facility;**
 - (iii) Evacuation and egress times;
 - (iv) Emergency services access;
 - (v) Provision of appropriate information;
 - (vi) Information on direction of egress; and
 - (vii) Induction and training of staff.
- b) Ensure continuous evacuation routes from the Bases, which should be via a choice of alternative routes via the Syndicate Base yards, the North-South connector road and Hamer Street, or through the base yards to Brigham Street entrance;
- c) Include a provision requiring the EEP to be reviewed at a minimum of 12 month intervals, commencing from the date of first occupation of the Bases. This shall take into account any learnings from the implementation of the EEP in the prior 12 months in response to a hazardous incident occurring; and
- d) Be consistent with the guidance in the *Emergency Evacuation Plan: Jellicoe Street, Silo Park & Gateway Plaza, Wynyard Quarter Auckland (by Holmes Fire Safety, 25 May 2011 Rev B)*.
- e) **The EEP shall be reviewed by a suitably qualified expert to ensure that the Base design and evacuation procedures are sufficient to ensure evacuation in the event of a toxic vapour release from the Stolthaven Wynyard (north) facility. The review shall be submitted to the Team Leader – Compliance Monitoring Central at least 30 days prior to occupation of the bases.**

9.5 I recommend that condition 176 be amended as follows (again for the reason explained in paragraph 4.13 above):

Condition 176

Prior to the berthage of super yachts in the Wynyard Wharf South Waterspace area, the current emergency plan for North Wharf (Emergency Evacuation Plan: Site 14 Redevelopment, Wynyard Quarter Auckland (by Holmes Fire Safety, 25 May 2011 Rev B)) shall be updated to ensure egress / evacuation arrangements are included for super yachts berthed in this area that could be potentially affected by an ammonia release from the nearby Sanford facility **or a toxic vapour release from the Stolthaven Wynyard (north) facility.**

- 9.6 I recommend that condition 182 be amended as follows to require the Event Management Plan to provide details of methods to minimise public access within Wynyard Point and Wynyard wharf, including the breakwater. I note that the intention is that such methods would be applied on event days when large numbers of people are congregating (rather than day to day outside event periods):

Condition 182

The EMP shall be implemented when an Event is held on Hobson Wharf, Halsey Wharf or Wynyard Point. The EMP shall:

- a) Identify of a range of event modes, which may differ according to location, duration, timing and occupancy;
- b) Reference and align with the 'Key Principles for Delivering Events' from Auckland Council's Events Policy; and
- c) Provide details or measures, through the plans identified in Condition 183, including in relation to the following matters:
 - (i) Marshalling and management of pedestrian and vehicle access to Hobson Wharf and Halsey Wharf;
 - (ii) On-site marshalling and management of vehicle access and bays on the Wynyard Point site, implemented also through the Wynyard Point Servicing, Delivery and Guest Transport Plan;
 - (iii) Methods to minimise public access within Wynyard Point and Wynyard wharf (including the breakwater) during events;**

...

- 9.7 I recommend that condition 183(d) be amended as follows (again for the reason explained in paragraph 4.13 above):

Condition 183 (d)

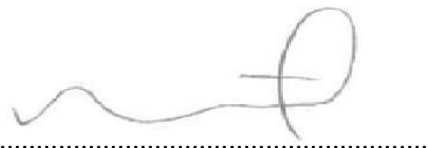
- d) An **Emergency Management Plan** (EmMP) that shall:
 - (i) Incorporate operational and emergency management plans, including evacuation requirements that are integrated with other local evacuation plans;
 - (ii) Identify public address and communications plans for the event site;
 - (iii) Provide signage and wayfinding; ~~and~~
 - (iv) Establish an operational and emergency control rooms-
 - (v) Methods and procedures to evacuate the site and surrounding areas in the event of an ammonia release from the nearby Sanford facility or a toxic vapour release from the Stolthaven Wynyard (north) facility.**

10 Applicability

This report has been prepared for the exclusive use of our client Auckland Council, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

Tonkin & Taylor Ltd
Environmental and Engineering Consultants

Report prepared by:



Rob Van de Munckhof
Principal Environmental Engineer

Authorised for Tonkin & Taylor Ltd by:



Jenny Simpson
Project Director

APPENDIX J

ROB VAN DE MUNCKHOF

NATIONAL ENVIRONMENT STANDARDS (SOIL) REPORT

Auckland Council
Via email

Attention: Tracey Grant

Dear Tracey

America's Cup 36 - Technical Memo National Environmental Standards for Contamination BUN60318372**1 Introduction**

- 1.1 This technical memo provides an assessment of Panuku Development Auckland's application for resource consents relating to the America's Cup in terms of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (**NES Soil**).
- 1.2 The following application documents have been provided and reviewed as part of this assessment:
 - a. America's Cup Wynyard Hobson – Application for Resource Consent: Assessment of Environmental Effects, dated 13 April 2018, prepared by UNIO on behalf of Panuku Development Auckland (**AEE**) (Application Document 4);
 - b. Preliminary Site Investigation (Contamination) (**PSI**) for Resource Consent Application, Wynyard Hobson, dated April 2018, prepared by Beca Limited (Application Document 27);
 - c. America's Cup Draft Remediation Action Plan (**RAP**) for Resource Consent Application, Wynyard Hobson, dated April 2018, prepared by Beca Limited (Appendix F to the PSI); and
 - d. America's Cup Wynyard Hobson, Proposed Conditions of Consent, prepared by Panuku Development Auckland (Application Document 7).

- 1.3 The NES Soil consider issues relating to land use and the protection of human health. The consent status under the NES Soil is determined by whether the site has had any historical HAIL (i.e. activities on the current edition of the Hazardous Activities and Industries List published by the Ministry for the Environment) activities undertaken, the extent of the work proposed and whether a preliminary site investigation or detailed site investigation has been undertaken.
- 1.4 As section 9.5 of the AEE records, discretionary activity consent is required under regulation 11 of the NES Soil for disturbing soil on a piece of land which has previously had HAIL activities carried out on the site, where the level of soil disturbance will exceed the thresholds permitted by regulation 8(3)(c) and no detailed site investigation has been undertaken.

2 Proposed works

2.1 Panuku Development Auckland (**Panuku**) proposes to develop part of the Wynyard Point and Wharf to enable the establishment of up to five America's Cup Syndicate base locations. The extent of the site including the proposed works and base locations are outlined in detail within the AEE prepared by UNIO. It generally comprises the area of land between the public park that runs adjacent to Jellicoe Street, and Hamer and Brigham Streets to the north including 8-34 Brigham Street, 56 Brigham Street and 90 Brigham Street. The site extends to the boundary of the existing Stolthaven North bulk chemical facility.

2.2 The AEE sets out the extent of works which are potentially impacted by contaminated soils at section 95:

It is proposed to undertake works within Wynyard Point to facilitate the syndicate bases C to G. This area is considered to contain contaminated soil. Further 'secondary' works are also proposed around the Brigham Street/Jellicoe Street intersection on land which is also contaminated.

2.3 In particular, the proposed physical works subject to the application include:

- a. Ground improvement works to the adjacent existing Wynyard Point Seawalls;
- b. Site levelling, and clearance including pavement and topsoil removal, with some undercutting;
- c. Excavations for building foundations for the new syndicate base buildings;
- d. Disposal of dredged material or bored material to raise ground levels;
- e. Minor earthworks including trenching, directional drilling and small excavations.

2.4 No major bulk earthworks or deep excavations are proposed. The proposed base structures will be built on ground level with no basements proposed.

3 Potential contamination

3.1 A Preliminary Site Investigation (**PSI**) has been completed for the site. The PSI has identified that the proposed site area has been used for bulk fuel and chemical storage since the early 1900s with the site currently still occupied by BST and Stolthaven South

which store bulk chemicals and tallow at the sites. The northern area of the site is currently used as a carpark, but was previously a bulk fuel terminal operated by BP. In addition, the PSI has identified that a plaster factory and zinc oxide plant were present prior to the early 1980s.

- 3.2 The PSI has also identified that during the construction of Wynyard Point, significant quantities of fill were used including dredged material from the Auckland Harbour, construction and demolition fill and gasworks waste.
- 3.3 The PSI has identified that the majority of known contaminants are associated with the handling and storage of petroleum hydrocarbons (bulk fuels) and the presence of gasworks waste with the main contaminants identified as follows:
 - a. Petroleum Hydrocarbons (including potential for free phase hydrocarbons);
 - b. Solvents;
 - c. Organic compounds within the gasworks waste;
 - d. Heavy metals including copper, cyanide and lead; and
 - e. Asbestos.
- 3.4 I am aware of significant works that have been undertaken within the Wynyard Central area to the south of the site which provide a good basis for understanding the likely nature and extent of contamination within the proposed development areas. The historical use of the Wynyard Central area was similar to the site with bulk chemical and petroleum hydrocarbon storage, industrial activities and significant fill comprising gasworks waste and demolition material. Significant quantities of petroleum hydrocarbons have been found within the Wynyard Central area along with gasworks waste and low levels of asbestos. Based on the experience within the Wynyard Central area and the historical activities identified, I consider that the PSI has identified the likely contaminants at the site.
- 3.5 While the PSI has identified the likely contaminants, the extent and level of contamination is uncertain as much of the site has not been investigated due to the site still being occupied by the current land users. Therefore, the Applicant propose to undertake additional investigations and reporting in the form of a Detailed Site Investigation (**DSI**) prior to works commencing at the site.
- 3.6 While a detailed site investigation has not been completed, a draft RAP has been prepared which includes controls and requirements for managing the expected contaminants at the site. The RAP includes comprehensive controls but will need to be updated to reflect the findings of the DSI. In particular, I consider that while the PSI has identified the potential for asbestos to be present based on the experience at other developments within the area, the draft RAP does not include any specific controls. The draft RAP, outlines that an Asbestos Management Control Plan (ANCP) will be prepared if asbestos is confirmed which will need to be reviewed to confirm the proposed controls are appropriate prior to works commencing.
- 3.7 The PSI and draft RAP have also identified the potential for vapours from hydrocarbons and solvents to be present at the site. The draft RAP includes additional measures for

petroleum impacted areas. These are focused on minimising exposure to workers during site works and have been based on the controls used during works within Wynyard Central. In addition, the draft RAP includes a section on the vapour risk to buildings or enclosed structures which identifies that a vapour risk assessment will be undertaken to identify any mitigation measures are required for the proposed enclosed structures. The RAP outlines possible mitigation measures to mitigate any vapour risks, but the specific requirements will need to be provided following the risk assessment.

4 Assessment of effects

- 4.1 The PSI submitted with the application has identified that the site may be contaminated with a wide range of contaminants based on the historical land uses and the reclamation of the land. While the types of contaminants have been identified, the extent of the contaminants is uncertain. The applicant has proposed to undertake additional site investigations to confirm the contaminants present, the concentrations and the special extent.
- 4.2 Beca has prepared a draft RAP which includes controls to manage the potential effects associated with the contaminants identified. The proposed conditions require this to be updated to reflect the outcome of the DSI to be undertaken. The AEE report prepared by UNIO states (at page 194) that provided the controls and mitigation measures outlined in the draft RAP along with any updates are implemented, there is a negligible effect on human health from the disturbance and future occupation of contaminated land.
- 4.3 I agree with the Applicant's assessment that, provided that proposed management and mitigation measures are implemented and adhered to during the works, the potential effects on human health will be negligible. I also consider that the previous works within the Wynyard Quarter area which implemented similar controls and measures demonstrate that any adverse effects on human health can be avoided or mitigated.

5 Recommended conditions

- 5.1 As part of the application, Panuku has recommended a number of consent conditions in Application Document 7. I have reviewed the proposed conditions, and recommend the following amendments or new conditions for consideration:

Condition 23 (vi): *"Any ground vapour mitigation measures required to protect occupants of enclosed structures as determined by the detailed site investigation report and vapour risk assessment"*

Condition (86): *"At least five (5) days prior to excavation or disturbance in areas of known or potentially contaminated land, the Consent Holder shall update the Draft Remediation Action Plan (RAP) included in the consent application. The updated RAP shall be prepared and submitted to the Team Leader Compliance Monitoring – Central ~~Monitoring~~ for certification in terms of the matters in Condition 88."*

Condition 88 (c): “Measures to monitor and mitigate discharges of odour, volatile organic compounds and asbestos (if required) during excavations, including criteria/action levels for triggering specific control and contingency measures;”

New Condition: “If the DSI required by Condition 85 identifies the presence of vapours from contaminants in the ground a vapour risk assessment shall be undertaken to:

- a Confirm the potential contaminants, pathways and receptors who may be impacted by vapours including construction workers and building occupants;
- b Undertake a risk assessment to identify if additional mitigation measures are required for the protection of workers or occupants on any enclosed buildings or structures; and
- c Identify appropriate mitigation measures for incorporation into the RAP or into the design of any proposed buildings or structures. “

5.2 I have seen the amendments to condition 92 recommended by Paul Crimmins, which I support, with the addition of a reference to “asbestos” as shown below:

92. To protect the health of workers on the site during excavations, works Excavation or soil disturbance in areas of known or potentially contaminated land shall be managed to minimise the generation of dust, **asbestos**, odour and volatile organic compounds ~~on the site~~ and be carried out in accordance with the certified RAP.


6 Applicability

This report has been prepared for the exclusive use of our client Auckland Council, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

Tonkin & Taylor Tonkin & Taylor Ltd

Environmental and Engineering Consultants

Report prepared by:



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Rob Van de Munckhof

Principal Environmental Engineer

Authorised for Tonkin & Taylor Ltd by:



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Jenny Simpson

Project Director

20-Jun-18
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APPENDIX K

MARIJA JUKIC

CONTAMINATION DISCHARGES REPORT

Technical Memo for a resource consent application relating to the discharge of contaminants to land and water from the disturbance of contaminated land and other discharges of contaminants

To:	Nicola Broadbent, Team Leader – North/West Consenting; Tracey Grant, Principal Project Lead – Premium, Resource Consents
From:	Marija Jukic, Senior Specialist, Contamination, Air & Noise, Specialist Unit, Resource Consents.
Date:	22 June 2018

1.0 APPLICATION DESCRIPTION

Applicant's name:	Panuku Development Auckland Limited
SAP numbers:	<ul style="list-style-type: none"> • BUN60318372 • DIS60313925 – Contaminant Discharge Consent • DIS60321336 – Other Discharges of Contaminants
Activity types:	<ul style="list-style-type: none"> • Discharge of contaminants to land and water from the disturbance of contaminated land • Discharge of contaminants to land and water from the stockpiling and re-use of cement-stabilised dredge material onto land
Site address:	8-34, 36-54, 56 and 90 Brigham Street, and 49-63 Jellicoe Street, Wynyard Point, Freemans Bay

2.0 PROPOSAL, SITE AND LOCALITY DESCRIPTION

2.1 Introduction

2.1.1 As requested, I have reviewed the America's Cup Wynyard Hobson resource consent application (**Application**) and relevant supporting information with reference to the requirements of Chapter E30: Contaminated Land of the Auckland Unitary Plan (Operative in Part) (**AUP**).

2.1.2 The following documents relevant to the Application have been reviewed:

- (a) America's Cup Wynyard Hobson Application for Resource Consent: Assessment of Environmental Effects, prepared by UNIO Environmental and dated 13 April 2018 (**AEE**) (Application Document 4);
- (b) America's Cup, Preliminary Site Investigation (Contamination) for Resource Consent Application, Wynyard Hobson, prepared by Beca Limited and dated

April 2018 (**PSI**) (Application Document 27);

- (c) America's Cup, Draft Remediation Action Plan for Resource Consent Application, Wynyard Hobson, prepared by Beca Limited and dated April 2018 (**RAP**), Appendix F of the PSI;
- (d) *America's Cup 36, Auckland 2021 Groundwater Technical Report for Resource Consent Application, Wynyard Hobson*, prepared by Beca and dated April 2018, (**GWR**) (Application Document 26);
- (e) *America's Cup, Geotechnical Report for Resource Consent Application, Wynyard Hobson*, prepared by Beca Limited and dated April 2018 (**GTR**) (Application Document 25);
- (f) America's Cup, Physical Infrastructure Technical Report for Resource Consent Application, Wynyard Hobson, prepared by Beca Limited and dated April 2018 (**PITR**) (Application Document 9);
- (g) *America's Cup, Auckland 2021 Assessment of Coastal Environmental Effects Associated with the Development of Americas Cup Facilities for Wynyard Hobson Option*, prepared by Golder Associates dated April 2018, (**Golder Report**) (Application Document 17);
- (h) *America's Cup, Wynyard Hobson Coastal Processes & Dredging Technical Report Resource Consent Application, Wynyard Hobson*, prepared by Golder Associates dated April 2018, (**Coastal Processes and Dredging Report**) (Application Document 16);
- (i) America's Cup Wynyard Hobson – Document 7 Applicant's Proposed Draft Consent Conditions, prepared by UNIO Environmental and dated 13 April 2018 (Application Document 7).

2.2 Proposal Relevant to this Consent Only

2.2.1 The Applicant is seeking consent to discharge contaminants to land and water from the land disturbance works associated with the development of infrastructure for the 36th America's Cup to be held in Auckland. A full description of the proposal is provided in the AEE.

2.2.2 In brief:

- (a) Construction around the Wynyard Point and Halsey and Hobson Wharves is proposed from late 2019 to provide infrastructure and accommodation for America's Cup yachting syndicates and events.
- (b) Five syndicate bases are proposed on the eastern side of Wynyard Point. The development area (referred to in this report as the Wynyard Point Area) is comprised of 46-63 Jellicoe Street in the south, 8 to 90 Brigham Street in the north, and a small portion of land from the southern portion of 49-63 Jellicoe

Street.

- (c) The proposed works associated with the establishment of the five bases involve the following:
- (i) Ground improvement works adjacent to existing Wynyard Point seawalls, anticipated to be comprised of cement-stabilised or stone columns, and/or piling. The columns would likely be placed in a lattice pattern and extend down 15 m deep and approximately 20 m landward of the existing seawalls. Alternatively, piling could incorporate up to 2 m diameter piles extending down 15 m deep;
 - (ii) Clearance including pavement and topsoil removal, and potentially undercut, associated with re-paving at the Wynyard Point Area;
 - (iii) Building foundations, anticipated to be strip foundations or piles at the Wynyard Point Area site;
 - (iv) Capping / raising of ground levels using dredgings or material excavated from the America's Cup project (e.g. borings from piles) and other Wynyard Quarter sites;
 - (v) Minor earthworks which may include ground investigations, trenching, directional drilling, excavation for post/pole foundations (e.g. for lighting, fencing, signs), etc. These will be restricted to works above the groundwater table, and will be limited to Jellicoe Street and Halsey Street by Hasley Wharf.
- (d) The redevelopment also includes the extensive reconfiguration, dredging and reclamation of the former Viaduct Harbour, increasing its versatility for vessel movements and berthage and maritime events.
- (e) The dredging component of the redevelopment comprises a total of 78,000m³ of sediment to be removed from three areas, to achieve the required navigable depth for safe vessel movement. The areas and associated dredging volumes include approximately 18,000m³ from Wynyard Wharf South water space, 30,000m³ from the access channel and 30,000m³ from the Outer Viaduct Harbour.
- (f) Sediment quality investigations have indicated that approximately 8,000m³ of sediment from the Wynyard Wharf South water-space is unlikely to meet the EPA offshore disposal conditions, and will therefore require disposal to land, either to an approved regional landfill or be utilised as mudcrete within Wynyard Point area as part of ground stabilisation works. A portion may be stockpiled onsite prior to being removed to another location/landfill as part of the construction process. In all instances the dredged material is anticipated to be mixed with cement to form mudcrete or managed in some way to make it easier to transport/ move (generally a spadeable consistency) before being utilised as fill or stockpiled and removed.

- (g) The construction activities are proposed to occur over a period of 18 months.
- (h) The PSI undertaken at the site has indicated that soils and groundwater within the Wynyard Point Area have been impacted by a range of contaminants originating from the historical handling and storage of petroleum hydrocarbons, and the disposal of gasworks waste in the reclamation fill. As such, there is likely to be a risk to human health and the environment from land disturbance if the fill is not managed appropriately.
- (i) The Applicant has prepared the draft RAP which provides mitigation measures and controls to adequately manage, mitigate or remedy any potential adverse effects of the discharge from contaminated land during the proposed land disturbance works. The RAP is based on previous RAPs submitted in support of other earthworks formerly undertaken as part of the redevelopment of the Wynyard Quarter area.
- (j) A detailed site investigation (DSI) which includes soil and groundwater sampling and analysis, will be carried out prior to the commencement of any soil disturbance works, to further characterise the potential contamination identified in the PSI that may be encountered during the implementation of the project.
- (k) A revised RAP will be prepared prior to the commencement of any land disturbing works in areas of known or potentially contaminated land, to reflect the conditions of consent and the findings of the DSI.
- (l) A Site Validation Report is intended to be prepared and provided to Auckland Council upon the completion of the proposed remedial works.

2.3 Background and Site History Relevant to this Consent Only

- 2.3.1 The site history has been described in Section 4 of the PSI. In summary, the site was historically part of a wider, early land reclamation undertaken by the Auckland Harbour Board to provide additional land and deeper harbours, as part of the establishment of Auckland City. The Wynyard Point reclamation was undertaken in the 1920s and 1930s, and included mostly hydraulically placed material within a perimeter bund. The reclamation fill in this area is comprised of dredged marine sediment, sandstone from the demolished cliffs formerly adjoining Beaumont Street, and more variable fill material (demolition debris, timber and gasworks, incinerator waste and other industrial processes-related wastes), particularly within the upper 1-2m.
- 2.3.2 Other activities relevant to this consent undertaken at each of the properties comprising the Wynyard Point Area since the completion of the reclamation works are summarised below:
- (a) **8-34 Brigham Street:** This property was initially occupied by Caltex Oils for bulk storage of fuels. In 1988 the site was taken over by Bulk Storage Terminals

Ltd (BST) to establish a chemical storage farm. Chemicals proposed to be stored at the property included solvents, caustics/acids, fuels, and various other chemicals. The property remains in use by BST for the storage of edible oils.

- (b) **36-54 Brigham Street (also known as 51 Hamer Street):** This property was owned by Marstell, a chemical storage company. Prior to Marstell operations the site was partially used by BP Oil for bulk storage of fuel products, and in part by a Zinc Recovery Plant (over the period from approximately 1937 to 1979) and a plaster company (Victor Plaster Co.NZ) which constructed a factory on the property around 1940. The current site occupant, Stolthaven New Zealand Ltd holds a consent to discharge contaminants from an industrial trade activity associated with the storage of hydrocarbon and bulk amount of liquids stored on site.
- (c) **56 and 90 Brigham Street:** This property, and 58-108 Hamer Street located to the north of the Wynyard Point Area, were owned by BP Oil Ltd, along with 58-108 Hamer Street, from approximately 1938 to 2007 and used for the bulk storage of fuels, including aviation gas and diesel.
- (d) **49-63 Jellicoe Street:** This was utilised by Castrol Oil from at least 1965 for the processing of lubricating oil. The tanks were demolished in 2003, with some remediation works for hydrocarbons carried out in 2004. The property was occupied by Southern Spars from 2005 to 2010, after which the site underwent redevelopment for recreational use in 2011, which included the demolition of the buildings at the site between 2010 and 2011.

2.3.3 On the basis of the site history, the PSI identified six potentially contaminating activities as prescribed on the Ministry for the Environment's Hazardous Activities and Industrial List (HAIL), as having occurred within the Wynyard Point Area. These were:

- (a) A2: Chemical manufacture, formulation or bulk storage – wide range of organic and inorganic compounds, including solvents and tallow;
- (b) A7: Gasworks, including the manufacture of gas from coal or oil feedstocks – polycyclic aromatic hydrocarbons (PAHs), benzene, toluene, ethylbenzene and xylenes (BTEX), phenolics, metals (particularly arsenic, lead, copper and chromium), boron, cyanide compounds, sulphides and sulphates, thiocyanates, ammonia, nitrates and coke;
- (c) A13: Petroleum or petrochemical industries including a petroleum depot, terminal, blending plant or refinery, or facilities for recovering, reprocessing or recycling petroleum-based materials, or bulk storage or petroleum or petrochemicals above or below ground – hydrocarbons, including BTEX, PAHs and solvents; lead and other metals, particularly if waste oil handled;
- (d) A17: Storage tanks or drums for fuel, chemicals or liquid waste – Wide range of chemicals (organic and inorganic) and biological hazards;
- (e) F7: Service stations including retail or commercial refuelling facilities –

Petroleum hydrocarbons (BTEX, PAHs) and lead; and

- (f) I: Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment – oil, petroleum, gasworks waste, free product.

2.3.4 A large number of environmental investigations have been conducted within the Wynyard Point and Wynyard Quarter Areas over several decades, the findings of which provide an indication of the type of contamination that may be encountered during the land disturbance works. Key investigations are discussed in Section 4 of the PSI, and have shown that:

- (a) Soils and groundwater beneath the Wynyard Point Area have been impacted by a range of contaminants resulting from the historical handling and storage of petroleum hydrocarbons, and the disposal of gasworks waste in the reclamation fill.
- (b) The degree and extent of hydrocarbon contamination, especially Total Petroleum Hydrocarbons (TPH) and PAHs is significant within the Wynyard Point Area, and characteristic of petroleum storage activities.
- (c) Measureable thicknesses of Separate Phase Hydrocarbons (SPH) (mostly diesel and jet-fuel (kerosene) derivatives originating from past spills) have been encountered and may be present in pockets within the proposed land disturbance areas.
- (d) Organic components within gasworks waste, and to a lesser extent inorganic compounds (selected heavy metals, (copper and lead), arsenic and cyanide) and low levels of asbestos.
- (e) With the exception of dissolved cyanide, elevated concentrations of inorganic compounds are generally localised and are not consistent spatially or vertically across the site.
- (f) Localised hotspots of Volatile Organic Compounds (VOCs) and Semi Volatile Organic Compounds (SVOCs), which are typically comprised of PAHs, have been identified predominantly in shallow soils.

2.3.5 The PSI also notes that other contaminants of concern may be identified during the land disturbance works based on previous work carried out within Wynyard Quarter. These include:

- (a) Blue Billy (a ferric-ferrocyanide compound associated with gasworks waste);
- (b) Asbestos deposits from construction fill;
- (c) Oil and chemicals stored within old pipes.

2.3.6 The Golder Report provides the results of sediment quality investigations carried out

in 2017. Assessment of the results against the permitted activity soil acceptance criteria as detailed in Table E30.6.1.4.1 of the AUP, and the Auckland regional background levels detailed in Table E30.6.1.4.2, indicates all but one concentration, a lead level of 330 mg/kg, meet the respective permitted activity soil acceptance criteria. However, concentrations of arsenic, copper, lead and zinc exceeded respective Auckland regional background in a number of samples, whilst PAHs, OCPs, tributyltin were detected at concentrations above laboratory detection limits in some samples. These results preclude this material from being treated as 'cleanfill material'.

2.4 Locality Description Relevant to this Consent Only

2.4.1 The Applicant provides a description of the site and receiving environment in section 8 of the AEE.

2.4.2 The site covers an area of approximately 24,000m² located within the Wynyard Precinct and is zoned Business-City Centre under the AUP. The legal descriptions are listed in the table below.

Address	Legal Description
8-34 Brigham Street	Lot 1 DP 119658
36-54 Brigham Street	Lot 4 DP 119658
56 Brigham Street	Lots 45 - 48 DP 27338
90 Brigham Street	Lots 49 - 58 DP 27338
Brigham Street	Road reserve
49-63 Jellicoe Street	SEC 4 SO 415995, Lot 2 DP 119658, SEC 5 SO 415995, SEC 10 SO 415995

2.4.3 The Wynyard Point Area is currently utilised for the following activities:

- (a) 8-34 Brigham Street – A bulk liquid storage tank farm facility operated by BST;
- (b) 36-54 Brigham Street - Tank farm for bulk chemical storage operated by Stolthaven Terminals over the majority of the property. A small boat yard operated by New Zealand Sails occupies the north-eastern-most part of this lot;
- (c) 56 and 90 Brigham Street – utilised for private car-parking for ASB;
- (d) Brigham Street is a paved public roadway;
- (e) 49-63 Jellicoe Street – The north-eastern most part of this lot is comprised of landscaped vegetation.

2.4.4 It is understood that Stolthaven Terminals and BST tank farm facilities will be cleared away in advance of the carrying out of works proposed under this application.

- 2.4.5 Land uses surrounding Wynyard Point to the north and west are predominantly industrial in nature. Immediately neighbouring businesses include the Firth concrete batching facility on Hamer Street and the remaining Stolthaven bulk chemical storage silos to the north. The areas to the south of Jellicoe Street are largely comprised of high amenity recreation, retail, food and accommodation (residential and hotel) activities and public recreational use.
- 2.4.6 The Wynyard Point Area is largely flat and approximately 3 to 5m above mean sea level. An extensive stormwater drainage network exists through the Wynyard Point reclamation with the majority of the stormwater discharges into the Waitemata Harbour via local outlets including the Hamer Street line.
- 2.4.7 Waitemata Harbour, which defines the eastern boundary of the Wynyard Point Area, is the nearest environmental receptor.
- 2.4.8 The local geology is described in the map *Geology of the Auckland Area*, Edbrooke, S.W. (2001) as construction fill (reclamation) overlying residual soils and rock of the East Coast Bay Formation (ECBF) of the Waitemata Group, which is considered to be bedrock in the area.
- 2.4.9 Groundwater levels and flow beneath the Wynyard Point Area are complex due to the heterogeneous nature of the fill and presence of seawalls (of a wide range) both of which results in varying local permeabilities, tidal lags and tidal ranges over relatively small distances.
- 2.4.10 Groundwater levels are generally in the range of 0.0 to 1.1 metres relative level (m RL) (1.9m to 3.0m below ground level (bgl)) assuming a typical ground level of 3m RL, although historical monitoring across Wynyard Point area indicates slightly elevated groundwater levels at 2.0m to 2.5m RL (1.5m to 2.0m bgl based on a ground level of 4m RL). It is noted that groundwater levels can vary up to 1.5m with the tide and by season. Groundwater flow is generally towards the north. Groundwater is not expected to be encountered within the shallow excavations proposed.
- 2.4.11 Service trenches within the reclamation area are known to have created preferential pathways for contamination, often carrying SPH.

3.0 REASON FOR CONSENT – CONTAMINANT DISCHARGE ACTIVITY AND OTHER DISCHARGES OF CONTAMINANTS

3.1 Reasons for Consent

- 3.1.1 Under section 15(1) of the Resource Management Act 1991 (the **RMA**) no person may discharge a contaminant into water, or onto or into land where it may enter water, unless the discharge is authorised by a National Environmental Standard, a rule in a regional plan or a proposed plan, or a resource consent.

The Auckland Unitary Plan (Operative in Part)

- 3.1.2 Discharge consents are assessed under the relevant rules of the AUP which became operative in part on 15 November 2016.
- 3.1.3 The proposed works do not comply with the permitted activity standards at E30.6.1.2 or E30.6.1.4, as the overall volume of the earthworks is intended to exceed the 200m³ trigger, the duration of the works will exceed two months, and the soil to be disturbed is considered likely to exceed the relevant permitted activity soil acceptance criteria.
- 3.1.4 Rule E30.4.1 (A6) and activity standard E30.6.2.1 of the AUP allow certain contaminant discharges associated with the disturbance and remediation of contaminated land as a controlled activity. However, as a DSI has not been undertaken across the subject site at this stage, it is considered that standard cannot be met by the proposed works, and therefore the proposal is regarded as a **discretionary activity** under rule E30.4.1 (A7) of the AUP.
- 3.1.5 Rule E4.4.1 (A15) of the AUP relates to certain discharges of water or contaminants (including washwater) onto or into land and/or water not complying with the relevant standards or not otherwise provided for in a rule in the Plan. The potential discharges associated with the proposed re-use and stockpiling of the cement-stabilised dredge material on land are not covered by any other rule in the Plan, and therefore it is considered appropriate that the activity be assessed as a **discretionary activity** under rule E4.4.1 (A15) of the AUP.

3.2 Other Activities Considered

- 3.2.1 The proposed works are required to be assessed against the regulations of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (**NES Soil**) which came into effect on the 1 January 2012. The activity's status and effects under the NES Soil have been considered separately in a report to the Council by Rob Van de Munckhof and are not discussed further in this memo.

4.0 TECHNICAL ASSESSMENT OF EFFECTS

4.1 Assessment of Effects on the Environment

- 4.1.1 As discussed in Section 2.1, the information collated and assessed in the PSI suggests that it is more likely than not that soils and groundwater within the Wynyard Point Area have been subject to contamination from the historical handling and storage of petroleum hydrocarbons, and the disposal of gasworks waste in the reclamation fill. As such, there may be a potential risk to human health and the environment if the disturbance of such land is carried out in the absence of suitable controls.
- 4.1.2 Whilst soil sampling was not carried out as part of the PSI, I concur with the Applicant's conclusion that the significant number of previous investigations and the

available historical information provide an adequate understanding of the type of contamination that may be encountered within the areas to be disturbed.

4.1.3 The Applicant has prepared a draft RAP which provides mitigation measures and controls to adequately manage, mitigate or remedy any potential adverse effects of the contaminant discharge during the proposed land disturbance works and the re-use and stockpiling of cement stabilised dredge material. The RAP has been developed from previous successfully implemented RAPs for Wynyard Quarter.

4.1.4 A number of the mitigation and management measures discussed in the RAP are presented below:

- (a) The completion of a DSI is proposed to further characterise and delineate the potential contamination associated with the identified HAIL activities undertaken within the Wynyard Point Area.
- (b) Revision and refinement of the RAP will be undertaken on the basis of the results of the DSI, and in consultation with the proposed contractor once appointed and post initial design, to provide the most appropriate management and mitigation measures on the basis of the contamination status of the site and the proposed works.
- (c) The management of soils, including soil excavation and disposal procedures will be undertaken in accordance with measures provided in Section 9.5 of the RAP, such as:
 - (i) Treating all soils as potentially contaminated;
 - (ii) Testing of all material to be disposed off-site prior to disposal;
 - (iii) Disposing all excavated soils off-site at a disposal facility that holds a consent to accept the relevant level of contamination, unless soil testing shows the soils are suitable to remain on site, and/or treatment works are proposed and agreed with council;
 - (iv) All soil to be disposed off-site will be loaded directly into trucks, loads will be covered before leaving the site, and any dirt brushed off wheels to avoid tracking onto public roads.
- (d) Whilst it is proposed that stockpiling of potentially contaminated soils is to be minimised, it is recognised that some stockpiling will be required. The proposed management of stockpiles is discussed in Section 9.2.2 of the RAP, and includes measures such as:
 - (i) The placement of stockpiled material on suitable impervious material (for example polythene sheet) to prevent contaminants from leaching onto clean soils;
 - (ii) Limiting the placement of stockpiles to areas where runoff can be

controlled;

- (iii) The covering of stockpiles while not in the process of having further material added and during periods of heavy rain to minimise the potential for the generation of leachate or sediment in stormwater.
- (e) The approach to stormwater and sediment control management proposed by the Applicant is discussed in Section 9.2.1 of the RAP, and includes measures such as:
 - (i) All controls for the treatment of surface water runoff and sediment discharge shall be designed and implemented in accordance with the Auckland Council Guideline Document 2016/005 (GD05) *Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region* (2016).
 - (ii) Surface water runoff will be directed towards catchpits and away from the excavations/earthworks areas or the marine boundary;
 - (iii) Sediment captured from the excavation of contaminated material will be assumed to be contaminated, and treated in the same manner as site soils;
 - (iv) More specific measures will be included in the Contractors Environmental Management Plan and the Erosion and Sediment Control Plan.
- (f) Section 9.9 of the RAP lists some proposed measures for controlling dust during the works, including:
 - (i) Dampening of exposed earth during dry and windy conditions;
 - (ii) Sweeping the road to avoid tracking of mud;
 - (iii) Covering of stockpiles;
 - (iv) Minimising the drop heights from loaders;
 - (v) Use of a full height fence with dust cloth around the excavation areas.
- (g) The management of imported material is discussed in Section 9.6 of the RAP. Material imported to the site for the purposes of filling shall be certified cleanfill that meets the definition of 'cleanfill material', as defined in the AUP. Records will be required to be kept by the Contractors to demonstrate that any imported material is obtained from a quarry or other certified source.
- (h) Although groundwater is not expected to be encountered during the proposed land disturbance works due to the shallow excavation depths, Section 9.8.1 of the RAP covers management measures to follow should dewatering be required. These include:
 - (i) Off-site removal of contaminated groundwater or stormwater to an

appropriate disposal location; or

- (ii) Discharge of the water through an oil/water separator before being discharged to the local reticulated sewer. An appropriate discharge permit is to be obtained prior to disposal;
 - (iii) Alternatively, any dewatering will be returned to ground within proximity of the excavation and no closer to the marine boundary. I note that that this method is not appropriate for water-impacted by petroleum hydrocarbon contamination.
- (i) Additional measures to management works in petroleum impacted areas are provided in Section 10 of the RAP, and include:
- (i) If SPHs are encountered, the oil/water mix will be removed from site directly by an appropriate contractor and disposed of, or passed through an oil/water separator before being discharged to the local reticulated sewer following an appropriate discharge permit being obtained.
 - (ii) Any water produced from the separator will be tested prior to disposal to sewer or trade waste and appropriate permits obtained;
 - (iii) Should dense non-aqueous phase liquids (DNAPL) be encountered, an alternate treatment and handling procedure will be developed by a suitably qualified and experienced practitioner (SQEP).
 - (iv) Anti-seep collars will be installed every 50m or adjacent to property boundaries, where service replacement or new installations are undertaken at or near the groundwater table or in proximity areas of suspected TPH vapours.
- (j) Appropriate contingency measures for the discovery of unexpected contamination during the redevelopment works are provided in Section 9.5.2 of the RAP. The Applicant proposes that more detailed control procedures will be developed in conjunction with the appointed contractor and dependent on the detailed design of works and the outcomes of the DSI, prior to the commencement of land disturbance works.
- (k) Also proposed by the Applicant is the provision of a site validation report to Auckland Council upon the completion of the soil disturbance works. This is included as a consent condition to identify any risk the site poses to the environment upon the completion of the soil disturbance works.

4.1.5 The proposed mitigation measures are considered to be appropriate to control the potential contaminant discharges from the proposed land disturbance works and the proposed re-use and stockpiling of cement-stabilised dredge material. It is considered that any effects of the proposed activity on the environment will be appropriately managed and mitigated, based on implementing the proposed measures to avoid, remedy or mitigate effects in accordance with the application

documents.

5.0 STATUTORY CONSIDERATIONS

5.1 Relevant objectives and policies

- 5.1.1 The AUP, Chapter E, Section 30, Objective 1, and Policies 1 and 2a–g are considered relevant to this application. I consider that the proposal complies with these objectives and policies as the nominated mitigation measures detailed in the draft RAP have been assessed as being appropriate to control the potential contaminant discharges from the planned land disturbance works, such that the environment is protected from any adverse effects. The draft RAP includes adequate measures to ensure the transport, disposal and tracking of contaminated soils and other contaminated material removed from the site to prevent adverse effects on the environment.
- 5.1.2 The implementation of the proposed remedial strategy detailed in section 8.1 of the draft RAP will ensure that contaminants remaining in the ground are not likely to pose a significant adverse effect on the environment.
- 5.1.3 I consider that best practice has been followed throughout the environmental investigation and reporting undertaken to support this application, and is also proposed to be implemented through the subsequent management of contaminated land as detailed in the draft RAP.

5.2 Matters Relevant to Discharge or Coastal Permits (Section 105) and Restrictions on Certain Permits (Section 107)

- 5.2.1 It is considered that the provisions of section 105 of the RMA have been met as it has been determined that there are no significant effects on the receiving environment as concluded in Section 4.0 of this memo. It is further considered the Applicant's reasons for the proposed choice of remedial actions and mitigation measures are appropriate in the circumstances, and therefore regard for alternative methods of discharge management is not deemed necessary in this case. Although the applicant has not considered alternatives specific to this application, no consideration is deemed necessary, given the level of the anticipated adverse effects and the mitigation methods proposed.
- 5.2.2 Section 107(1) of the RMA places restrictions on the granting of certain discharge permits that would contravene Sections 15 or 15A of the RMA. It is considered that the proposal will not give rise to any of the effects listed in section 107(1) because of the scale of the disturbance, and the appropriate site management measures proposed.

5.3 Duration of Consent (Section 123)

- 5.3.1 The Applicant has requested a ten year term of consent. I understand that Nicola Broadbent has proposed a shorter term for this consent of 5 years. Based on my understanding of the project, I am satisfied that a 5 year term will provide ample time for construction to be completed in accordance with the proposal.

6.0 RECOMMENDATION AND CONDITIONS

6.1 Adequacy of Information

The above assessment is based on the information submitted as part of the application. It is considered that the information submitted is sufficiently comprehensive to enable the consideration of the above matters on an informed basis:

- (a) The level of information provides a reasonable understanding of the nature and scope of the proposed activity as it relates to the AUP.
- (b) The extent and scale of any adverse effects on the environment are able to be assessed.

6.2 Recommendation

The assessment in this memo does not identify any reasons to withhold consent, and the aspect of the proposal considered by this memo could be granted consent, subject to recommended conditions, for the following reasons:

- (a) Subject to the imposition of consent conditions, I consider that the potential effects related to contaminant discharges on the receiving environment will be appropriately avoided, remedied or mitigated.
- (b) The sensitivity of the receiving environment to the adverse effects of potential contaminant discharge will not be compromised given the level of the discharge, the application of suitable controls and appropriate on-site management techniques.

6.3 Conditions

- 6.3.1 The Applicant has proposed a number of conditions of consent in Application Document 7, with those specifically relating to the management of contaminant discharges covered in conditions 85 to 91.
- 6.3.2 I am generally satisfied that the proposed conditions are suitable to ensure that potential contaminant discharges from the proposed land disturbance works are controlled and that any effects of the proposed activity on the environment will be appropriately managed and mitigated. However, I recommend the following amendments for consideration:

- a. I recommend that Condition 87 be amended to read:

The purpose of the RAP ~~is to~~ **shall be to** detail the measures to manage human exposure, and environmental risk associated with works in contaminated material the Project area, during construction.

- b. I recommend that Condition 90 be amended to read:

All sampling and testing of contamination on the site shall be overseen by a suitably qualified **person and experienced practitioner**. All sampling shall be undertaken in general accordance with MfE Contaminated Land Management.

- 6.3.3 As no specific conditions have been proposed for the management of the discharge of contaminants associated with the re-use and stockpiling of cement stabilised dredge material on land, I recommend the following amendments or inclusion of new conditions for consideration:

- a. I recommend that Condition 88 be amended to include the following new matters:

Measures to manage the placement of dredge material on the site addressing:

- i. Description of the methodology of the proposed placement of the dredge material within the site, and its management;
- ii. The management of the associated contaminant discharges and the relevant effects on the receiving environment;
- iii. Description of the contingency plan procedures for the management of unexpected contamination within the placed dredge material.

- b. I recommend that the following new condition be included:

The discharge of contaminants to land and water from the reuse and stockpiling of cement stabilised dredge material shall be carried out in accordance with the updated Remediation Action Plan referenced in Condition 88.

- c. I recommend that the following new condition be included:

Any dredge material that has not been cement-stabilised and is placed within the site shall be adequately bunded and covered to avoid the generation of contaminant discharges. Any seepages from the unstabilised dredge material shall be considered potentially contaminated, and shall either:

- i. be disposed of by a licenced liquid waste contractor; or
- ii. pumped to sewer, providing the relevant permits are obtained; or
- iii. discharged to the stormwater system or surface waters provided testing demonstrates compliance with the Australian and New Zealand Environment Conservation Council (ANZECC) Guidelines for Fresh and Marine Water Quality (2000) for protection of 80 percent of marine water species, except for benzene where the criterion for protection of 95 percent of species shall apply.

7.0 REVIEW

Technical memo prepared by:

Marija Jukic




**Senior Specialist
Contamination, Air and Noise
Specialist Unit, Resource Consents**

Date:

22 June 2018

Technical memo reviewed and approved for release by:

Jared Osman



**Team Leader, Contamination, Air and Noise
Specialist Unit, Resource Consents**

Date:

22 June 2018

APPENDIX L

AHAD KHAN

DEVELOPMENT ENGINEERING REPORT

Technical memo - Specialist Unit

To: Nicola Broadbent, Team Leader - North West Resource Consenting Unit, Auckland Council

From: Ahad Khan, Team Leader, Regulatory Engineering Auckland Council

Date: 19 June 2018

1.0 APPLICATION DESCRIPTION

Application and property details

Applicant's Name/
Application Name: Panuku Development Auckland / America's Cup Wynyard Hobson

Service Centre Application
Number & Water Allocation
Consent Number: BUN60318372, LUC60318373 and DIS60318378

Activity type: The Management of Stormwater, Wastewater, WaterSupply, Earthworks, Erosion and Sedimentation Control and Geotechnical related matters from a district perspective.

Site address: Wynyard Point & Wynyard Wharf, Auckland CBD

Introduction – Scope of Report

1.1 This report provides a development engineering review and assessment, from a district perspective, of the management of effects relating to the following matters associated with the America's Cup Wynyard Hobson resource consent application, which I refer to in this memo as "**the Application**":

- a. Stormwater;
- b. Wastewater / water supply;
- c. Earthworks and erosion and sediment control; and
- d. Geotechnical matters / coastal processes.

1.2 The focus of my report is on the district plan provisions of the Auckland Unitary Plan – Operative in Part (**AUP**) relevant to the above matters. The regional provisions of the AUP contain different triggers and thresholds, and are addressed by other Council

specialists. Specifically, I note that other Council specialists have addressed: stormwater and earthworks / erosion and sediment control matters from a regional perspective¹; coastal processes²; and geotechnical matters³.

- 1.3 My geotechnical assessment relates purely to managing any instability that could arise as a result of undertaking earthworks, such as deep trenches to accommodate drainage works. Mr Brightman will address other geotechnical matters.

Application Documents

- 1.4 The following application documents are particularly relevant to this report:
- a. Application for Resource Consent: Assessment of Environmental Effects (**AEE**), America's Cup Wynyard Hobson, 13 April 2018, prepared by UNIO Environmental Limited (**UNIO**) (Application Document 4);
 - b. The Applicant's Proposed Draft Consent Conditions, 13 April 2018, prepared by UNIO (the **Applicant's Draft Conditions**) (Application Document 4);
 - c. America's Cup Physical Infrastructure Technical Report for Resource Consent Application, Wynyard Hobson, 11 April 2018, prepared by Beca Limited (the **Beca Infrastructure Report**) (Application Document 9);
 - d. Beca's Basis of Design report dated April 2018 (Appendix A to the Beca Infrastructure Report);
 - e. America's Cup, Wynyard Hobson, Coastal Processes and Dredging Technical Report by Tonkin and Taylor dated April 2018 (Application Document 16);
 - f. America's Cup Geotechnical Report for Resource Consent Application, Wynyard Hobson by Beca dated April 2018 (Application Document 25);
 - g. The Draft Remediation Action Plan, Appendix F to Beca's Preliminary Site Investigation Report (Application Document 27);
 - h. Concept Engineering Drawings by Beca (Application Documents DS5.1 to DS5.3);
 - i. America's Cup Stormwater and Services Technical Report for Resource Consent Application, Wynyard Hobson by Beca dated April 2014 (Application Document 28).

¹ Hillary Johnston and Gemma Chuah have addressed regional stormwater, and Fiona Harte has addressed regional earthworks.

² Sam Morgan.

³ Charlie Brightman.

2.0 Summary of Proposal and District Engineering Assessments

Proposal as relevant to Engineering

- 2.1 The development of infrastructure for the America's Cup applicant's proposal involves a range of engineering-related matters, from a district perspective, concerning the management of stormwater, wastewater, water supply, erosion and sediment control and earthworks and coastal processes.
- 2.2 A full description of the proposal is provided in the AEE. In brief:
- a. Construction around the Wynyard Point, and Halsey and Hobson Wharves is proposed to provide infrastructure and accommodation for America's Cup yachting syndicates and events from late 2019.
 - b. Five syndicate bases are proposed on Wynyard Point between 46-63 Jellicoe St and 90 Brigham St. These are proposed to be constructed by upgrading the wharf with cement-stabilised columns or piling to approximately 15-20 m deep. Earthworks for building platforms and other site preparation earthworks are also proposed in this area.
 - c. Private stormwater infrastructure is proposed to be installed for the management of stormwater from the buildings on and from Wynyard Point, and Halsey and Hobson Wharves. Minor trenching works to accommodate these drains and outfall structures are proposed. No new stormwater is proposed to be diverted to the existing public network.
 - d. Public wastewater connections and private wastewater including private pump stations and rising mains are proposed to service the development at Wynyard Point, and Halsey and Hobson Wharves. New wastewater is proposed to discharge to existing network. A conditional approval from Watercare Services regarding discharge to their network has been obtained.
 - e. Earthworks associated with installation of the private and public stormwater, wastewater and water networks are generally of minor nature.
 - f. Stability arising from the minor earthworks for installation of stormwater, wastewater and water networks are generally low.
 - g. Construction activities are proposed to occur over a period of 18 months.

Site Locality and Environs Descriptions (Relevant to District Engineering Matters)

- 2.3 Construction works are primarily to be undertaken in the following areas:
- Wynyard Point on the eastern side of Hamer St between Jellicoe St and 90 Brigham St;

- Jellicoe St (works for services);
- Halsey St (works for services);
- Viaduct Events Centre (Halsey Wharf);
- Hobson Wharf.

2.4 The applicant provides a description of the site and receiving environment in the AEE at section 8. In brief:

- a. The AUP zones the site area as Business City Centre Zone and General Coastal Marine Zone. A number of precincts also apply, including the Wynyard Precinct.
- b. At the Wynyard Point construction area, surrounding land-uses to the north and west are predominantly industrial in nature. Immediately neighbouring businesses include the Firth concrete batching facility on Hamer St and the remaining Stolthaven bulk chemical storage silos to the north.
- c. The areas to the south of Jellicoe St and east of its intersection with Brigham St are considered to be sensitive to dust and odour as they now largely comprise high amenity recreation, retail, food and accommodation (residential and hotel) activities.

2.5 The key matters to note, for the purposes of assessing the actual and potential effects of the Application, are as follows:

- a) Installation of stormwater, wastewater and watersupply. In order to install these services, earthworks will be required.
- b) Sediment from the excavation to accommodate the stormwater, wastewater and water supply infrastructure is likely and must be managed.
- c) The stability of the excavated trench to accommodate the stormwater, wastewater and water supply infrastructure could result in stability issues arising if correct earthworks practices, methodology and stability devices are not properly implemented.
- d) Site-specific geotechnical investigations across Wynyard Point, the south side of Hobson, and Halsey Wharves indicate that the ground conditions consist of reclamation fill materials overlying a variable thickness of recent marine sediments and Tauranga Group alluvial deposits that have infilled an old valley system. East Coast Bays Formation rock is encountered at a variable depth, ranging from -15 m to -23 m Chart Datum (CD) with the axis of the paleo-valley inferred to run parallel to (and beneath) Wynyard Point reclamation.

3.0 REASON FOR CONSENT – RELEVANT TO DISTRICT ENGINEERING

Reasons for consent

3.1 I have identified the key reasons for consent from a district engineering perspective below:

a. **E8 Stormwater – Discharge and diversion**

The proposal involves the diversion and discharge of stormwater from impervious areas associated with the new wharf structures and landside activities. Consent is sought under rule E8.4.1(A10) of the AUP for discharge and diversion not otherwise provided for as a discretionary activity.

b. **E12 Land disturbance – District**

Under rules E12.4.1(A6) and (A10) the proposal involves earthworks over an area exceeding 2500m² with a volume greater than 2500m³ and requires consent as a restricted discretionary activity.

c. **E36 Natural hazards and flooding**

The proposal involves the location of buildings and structures (including temporary construction facilities and structures associated with the ground improvement works), and buildings (base syndicate bases and temporary event structures) and structures on land within the area defined as the coastal erosion hazard area. Consent is therefore required under E36.4.1(A4) as a restricted discretionary activity.

d. **E36 Natural hazards and flooding**

The Auckland Council Geomaps shows three overland flow paths within the Wynyard Point area discharging across the road and into the harbour. The GIS map also incorrectly shows a flood prone area between Brigham St and Wynyard Wharf. This is part of the Waitematā Harbour and is not a flood prone basin. As the proposal includes works within the overland flow paths, consent is sought in relation to these flow paths under E36.4.1(A42) as a restricted discretionary activity.

4.0 TECHNICAL ASSESSMENT OF EFFECTS

Stormwater

4.1 Stormwater is addressed in several parts of the Application:

- a. Section 2.5.5, 3.3.6 and 4.9.5 of Beca's Basis of Design Report address stormwater in some detail.
- b. Section 3.3 and section 5.0 of the Stormwater and Technical Services Report

by Beca further discusses reticulation and management of stormwater.

- c. Concept Engineering drawings, plans titled Proposed Services Drawings 2, Services, Sheet 1 of 6 to 6 of 6, reference numbers 3233847-CU-4452, Rev B, to 3233847-CU-4457, Rev B and dated March 2018 demonstrate the layout and levels of the proposed stormwater system.
- 4.2 The applicant has proposed to manage all stormwater runoff from the existing and new imperious areas and discharge it by use of a private stormwater drainage system directly to sea. The stormwater system, including the outfall structures will remain in private ownership. No stormwater will connect or discharge to the existing public network, and therefore no additional loading to the existing public stormwater network is proposed. The new private stormwater network is proposed to be designed for a return period of 10 years. The designed consideration with respect to 10 year return period is in line with Council's Engineering Code, entitled "*Code of Practice for Land Development and Subdivision, Chapter 4 - Stormwater*".
- 4.3 Full consultation with Auckland Council (including the Council's Healthy Waters team) must occur at detail engineering design stage.

Wastewater

- 4.4 Wastewater is addressed in several parts of the Application:
- a. Section 3.6.2, and subsections 3.6.2.1, 3.6.2.2, 3.6.3.1 and 3.6.3.3 of the Beca Infrastructure Report;
 - b. Section 2.5, 3.3 and 4.9 of the Basis of Design Report address water and wastewater in some detail.
 - c. Section 2.5 and section 4.0 of the Stormwater and Technical Services Report by Beca further discusses reticulation and management of water and wastewater.
 - d. Concept Engineering drawings, plan/s titled Proposed Services Drawings 2, Services, Sheet 1 of 6 to 6 of 6, reference numbers 3233847-CU-4452, Rev B, to reference numbers 3233847-CU-4457, Rev B and dated March 2018 demonstrates the layout and levels of the proposed wastewater and watersupply system.
- 4.5 The applicant has proposed to manage all wastewater by use of private drains, private pump stations, private wastewater rising mains and public lateral. All wastewater therefore will eventually discharge to the existing public network.
- 4.6 All wastewater and water information was sent to Shane Lawton of Watercare for review. Mr Lawton confirmed that the design and proposal is within the scope of their approval, permit no. 72816 with respect to capacity of their wastewater and water infrastructure, subject to Building Consent and Engineering Plan approval processes.

I understand from speaking with Mr Lawton that they have been invited to attend meetings with the applicant's engineers for detail design.

- 4.7 Again, full consultation with the Council (and with Watercare Services) [as per the Watercare Review, Referenced 72816] must occur at detail engineering design stage.

Earthworks / Erosion and Sediment Control

- 4.8 Very limited earthworks are proposed from a district perspective. The nature of earthworks is associated with installing the services, namely wastewater, water and stormwater.
- 4.9 A Remedial Action Plan (**RAP**), including site management measures such as soil excavation, disturbance and disposal procedures, has been drafted to cover the project. In addition, an Erosion and Sediment Control Plan will be prepared for the earthworks, referencing Auckland Council's guidance documents Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region GD2016/005 (2016) and Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region TP90 (2007). This will address measures such as collection and treatment of site stormwater during construction, protection of the existing stormwater network and closure of trenching.
- 4.10 An Erosion and Sediment Control Plan (ESCP) will be prepared for the landside earthworks, covering measures relating to site and stormwater management during construction. An outline ESCP is included in Appendix C to the Physical Infrastructure Report, which provides a high-level overview of measures that could be implemented. As with the draft RAP, above, this mitigates effects on stormwater and the surrounding Coastal Marine Area. I have had the opportunity to review Fiona Harte's proposed amendments to the earthworks and erosion / sediment control conditions, which I support.

Geotechnical Matters / Coastal Processes

- 4.11 With respect to geotechnical matters, adequate measures will need to be in place to ensure that the trenches to accommodate drainage and surrounding buildings and services would be adequately protected so it would not lead to instability. I recommend several conditions in Section 6 of my report to address this.
- 4.12 The Mean High Water Spring provided is 3.39CD (Chart Datum). This figure is compatible with the New Zealand Nautical Almanac 2017. In terms on land datum (Dosli Auckland Datum), this level is equivalent to 1.65(DL).
- 4.13 According to a separate study by NIWA, entitled "*Coastal Inundation by Storm-Tides and Waves in the Auckland region*" dated September 2013, the sea level for a 100 year return period is 2.4m (Dosli Auckland datum). See **Figure 1** below. The AUP requires a metre freeboard above this figure to factor in climate change. $2.4 + 1.0 + \text{wave action} = 3.4\text{m} + \text{Wave Action}$ (Dosli Auckland datum). (Refer to E36.4.1 (A9) and (A56) of the AUP).

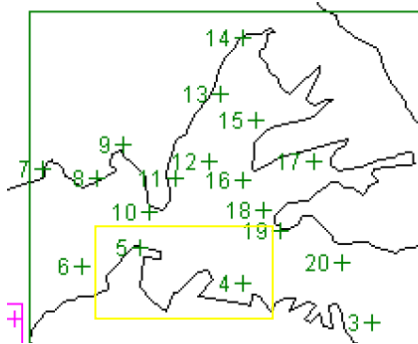


Table 3-3: Extreme sea-level in the Waitemata Harbour. Elevations are relative to AVD-46 including +0.15 m offset for baseline mean sea level (present-day estimate). Elevations calculated from simulated data. Colour-coding corresponds to Figure 3-6.

		AEP:	0.39	0.18	0.1	0.05	0.02	0.01	0.005
		ARI:	2 yr	5 yr	10 yr	20 yr	50 yr	100 yr	200 yr
Site	Easting (NZTM)	Northing (NZTM)							
1	1762303	5921531	1.94	2.03	2.08	2.14	2.21	2.26	2.31
2	1760922	5920192	1.98	2.06	2.12	2.17	2.24	2.30	2.35
3	1759830	5920934	1.99	2.07	2.13	2.18	2.25	2.30	2.35
4	1757487	5921632	2.04	2.12	2.18	2.23	2.31	2.36	2.41
5	1755640	5922256	2.08	2.16	2.22	2.27	2.34	2.40	2.45

Figure 1 – Table from NIWA study

4.14 The finished level of the wharfs would therefore need to be as per below:

Wynyard $5.39 - 1.74 = \mathbf{3.65m}$ (excluding any building freeboard)

Hobson $5.0 - 1.74 = \mathbf{3.26m}$ (excluding any building freeboard)

Halsey $5.0 - 1.74 = \mathbf{3.26m}$ (excluding any building freeboard)

4.15 The proposed finished wharf levels therefore do not meet the predicted sea levels due to climate change, once wave action and building freeboard is factored in for 100 year period.

4.16 In order to address this issue, the applicant has recommended in section 4.4.7 of the Physical Infrastructure Technical Report by Beca dated April 2018, that the new piles be designed for a future 1m increase in height of the wharf deck that could be achieved using a lightweight core overlaid with reinforced concrete deck. Proposed condition 27 provides for this (Application Document 7). The increase in wharf deck level and wave panel height may be staged in 1 to 2 increments over the next 100 years in response to trigger points associated with sea level rise. The design response is expected to be refined with time to allow for updated climate change predictions.

4.17 As the buildings are designed for 10 years only, a pragmatic approach as suggested by the applicant would be to review the finished level of the wharf against climate change for the period ranging from 2040 up to 2060 which would be prior to the end of consent and therefore allowing the adaptive measures to be incorporated in the schedule asset renewal of major repair.

4.18 The applicant has used the recently released national guidance (MfE, 2017) Coastal Hazard and Climate Change recommendation that states the following:

Table 8: Guidance for sea level rise allowances (MfE, 2017)

Period	NZ RCP2.6 M SLR (m)	NZ RCP4.5 M SLR (m)	NZ RCP8.5 M SLR (m)	NZ RCP8.5 H* SLR (m)
Medium term to 2050 (consistent with 35 year consent duration)	0.23	0.24	0.28	0.37
Long term to 2120s	0.55	0.67	1.06	1.36

Overland flowpaths

- 4.19 The overland flowpaths are contained within the road reserve and discharge directly to the harbour. The proposed fill of the Wynyard Wharf therefore must be done to ensure continuity of these flowpaths and its discharge points into the harbour.

Assessment of Effects

- 4.20 I consider there has been sufficient investigation by the applicant regarding geotechnical works, stormwater, wastewater, water supply, and earthworks to provide appropriate and suitably conservative data for an adequate assessment of effects.

- 4.21 The following summarises the outcome of my assessment:

- a. The existing public stormwater network will not be compromised due to the new stormwater generated as a result of the proposal. All stormwater will be collected via adequately designed stormwater infrastructure and discharged directly to sea. All new stormwater infrastructure will remain in private ownership.
- b. New wastewater generated is proposed to be collected and discharged to the public wastewater network. Watercare has agreed to accept the additional flows subject to detailed design.
- c. Earthworks to accommodate the new stormwater, wastewater and water infrastructure is considered to be of a shallow and minor nature.
- d. Instability arising as a result of excavating the trench to accommodate the stormwater, wastewater and water infrastructure is considered to be low provided adequate earthworks methodology as per the Earthworks Methodology and Erosion and Sediment Control Management Report mentioned in the Infrastructure Report By Beca dated April 2018, the Construction Environmental Management Plan and a finalised Erosion and Sediment Plan and Geotechnical Report by Beca dated April 2018 should adequately capture these requirements.
- e. The mitigation proposed by the applicant to address rise in sea level as a result of climate change is considered reasonable.

- f. Overall, I consider the potential adverse effects on the environment associated with the matters I have assessed above as a result of the proposed activities as being less than minor, subject to the conditions discussed below.

5.0 SUBMISSIONS

Utility Providers

- 5.1 I have seen the submission by Vector (#5), in which Vector states that it is appropriate to require that any works in the vicinity of its assets and infrastructure be carried out in consultation with Vector, and using methods that avoid or mitigate any potential adverse effects.
- 5.2 Full consultation with all other utility providers, namely Vector, Spark, Vodafone, and Chorus, must occur.
- 5.3 The major issues encapsulating the consultation must address at least the following:
- Full and unimpeded access for the utility providers to their asset; and
 - Adequate arrangements or agreement with utility providers if their asset is proposed to be either temporarily or permanently relocated or decommissioned.

6.0 RECOMMENDATION AND CONDITIONS

Recommendation

- 6.1 The assessment in this memo does not identify any reasons to withhold consent and the aspect of the proposals considered by this memo could be granted consent subject to recommended conditions set out below.

Proposed Conditions

- 6.2 In Application Document 7, the applicant has proposed a set of conditions including those in relation to the management of stormwater, wastewater, water supply, related earthworks and erosion and sedimentation. As a general observation, the proposed conditions are generally satisfactory and in accordance with typical conditions used for similar activities.
- 6.3 I have had the opportunity to review the reports by:
- a. Fiona Harte (regional earthworks);
 - b. Hillary Johnston / Gemma Chuah (regional stormwater);
 - c. Charlie Brightman (geotech and geology); and
 - d. Sam Morgan (coastal processes).

6.4 I agree with the amendments to the earthworks conditions recommended by Ms Harte, and the stormwater conditions recommended by Ms Hillary and Ms Chuah. I also support Nicola Broadbent's recommendation that an amended version of the applicant's proposed condition 13 be imposed requiring the consent holder to carry out the development in accordance with (among other documents) the Beca Infrastructure Report and relevant infrastructure plans.

6.5 I recommend the following further amendments to the proposed conditions:

Water and wastewater

6.6 I recommend the following additional conditions relating to water and wastewater:

- (a) The Consent Holder shall design the wastewater drains and water supply in accordance with the wastewater and water supply drawings referred to in Condition 13 and the Annexure to these consents.
- (b) Wastewater and water drains shall be provided on the following: Wynyard Wharf permanent infill sections; Hobson Wharf extension Halsey Wharf and Wynyard Point bases.
- (c) Construction of the physical Infrastructure with respect to wastewater and water supply shall be undertaken in accordance with the drawings provided by Beca plan/s titled Proposed Services Drawings 2, Services, Sheet 1 of 6 to 6 of 6, reference numbers 3233847-CU-4452, Rev B, to reference numbers 3233847-CU-4457, Rev B and dated March 2018 in full consultation with Watercare Services (as per the Watercare review, Referenced 72816) and Auckland Council. Confirmation of construction works must be in the form of an engineering completion report or any other form acceptable to Watercare Services and Auckland Council.

Pre-Construction Meeting

- (d) A pre-construction meeting shall be held by the consent holder, prior to commencement of the construction of any wastewater and water supply works, that:
 - (i) Is arranged five working days prior to initiation of the construction of any wastewater and water supply works on the site;
 - (ii) Is located on the subject area;
 - (iii) Includes representation from the Team Leader Compliance Monitoring -Central; and
 - (iv) Includes representation from the site engineer and contractors who will undertake the works and any other relevant parties
- (e) The following information shall be made available prior to, or at the pre-construction meeting:

- (i) Timeframes for key stages of the works authorised under this consent;
- (ii) Contact details of the site contractor and site engineer; and
- (iii) Construction plans certified (signed/stamped) by an Auckland Council Development Engineer.

Post-construction meeting

- (f) A post-construction meeting shall be held by the consent holder, within 20 working days of completion of the wastewater and water supply works, that:
 - (i) Is located on the subject area;
 - (ii) Includes representation from the Team Leader Compliance Monitoring - Central; and
 - (iii) Includes representation from the site engineer and contractors who have undertaken the works and any other relevant parties.

As Built Drawings

- (g) No later than 30 working days after the practical completion of the project or of any project stage which is subject to separate practical completion, the Consent Holder shall supply As-Built Drawings for the wastewater and water supply works to the Team Leader Compliance Monitoring – Central.

Advice Note: *All new and temporary public water and wastewater infrastructure including connection points to the existing systems will require an approval from Watercare Services and an Engineering Plan Approval from Auckland Council. All new and temporary private wastewater infrastructure will require a Building Consent from Auckland Council.*

Additional Geotechnical-Related Earthworks Conditions

6.7 Finally, I propose the following additional development engineering conditions to address geotechnical-related earthworks. I suggest that these be inserted at the end of the existing construction conditions (with consequential amendments to the SSESCP and CEMP conditions), sitting alongside the set of geotechnical conditions recommended by Mr Brightman:

- x.1 The following requirements shall apply to all geotechnical-related works and shall also be addressed in the SSESCPs and CEMP:
 - (a) Prior to the commencement of geotechnical-related works, the Team Leader Compliance Monitoring - Central shall be provided with written certification from a suitably qualified professional that all trenches for the purpose of drainage (manholes and drains), fill and foundations (if any) have been provided with adequate support and protection so they will not lead to instability.
 - (b) The trenches, retaining walls and building foundations shall be supervised by a suitably qualified engineering professional. In supervising the works, the suitably qualified engineering professional shall ensure that trenches for the purpose of drainage (manholes and drains), fill and foundations (if any), have been provided with adequate support and protection so they will not lead to instability.

(c) Following completion of the relevant works, certification from a suitably qualified engineering professional responsible for supervising the works shall be provided to the Team Leader Compliance Monitoring - Central, confirming that the trenches for the purpose of drainage (manholes and drains), fill and foundations, did not lead to any instability.

x.2 All geotechnical-related earthworks shall be managed to ensure that they do not lead to any uncontrolled instability or collapse either affecting the site or adversely affecting any neighbouring properties. In the event that such collapse or instability does occur, it shall immediately be rectified.

7.0 REVIEW

Memo prepared by:

Ahad Khan



Team leader, Regulatory Engineering

Date:

19 June 2018

Reviewed and approved for release by:

Daniel Sansbury



Manager, Regulatory Engineering Central

Date:

19 June 2018

APPENDIX M

BRONWYN COOMER-SMIT AND ANGIE CRAFER

TRANSPORT REPORT



**America's Cup Wynyard
Hobson**

Peer Review of Traffic and
Transport Assessment

June 2018

flow


TRANSPORTATION SPECIALISTS



TRANSPORTATION SPECIALISTS

Project: America's Cup Wynyard Hobson
Title: Peer Review of Traffic and Transport Assessment
Document Reference: P:\ACXX\338 AC36 WYNYARD HOBSON Proposal Peer Review\Peer Review report\R1A180620 FINAL.docx
Prepared by: Bronwyn Coomer-Smit and Angie Crafer
With input from: Crystal Chan, Mat Collins and Andrew Gratton, Auckland Transport

Revisions:

Date	Status	Reference	Approved by	Initials
4 June 2018	Draft A	R1A180604	A Crafer	
12 June 2018	Final Draft	R1A180612	A Crafer	
20 June 2018	Final	R1A180620	B Coomer-Smit	

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EXECUTIVE SUMMARY

1. Auckland Council (“**Council**”) has requested Flow Transportation Specialists Ltd (“**Flow**”) to review the traffic and transportation matters associated with the resource consent application by Panuku Development Auckland (“**Panuku**” or “**Applicant**”) to construct, operate and use the infrastructure for the America’s Cup Wynyard Hobson (“**AC Wynyard Hobson**”) proposal.

The Proposal

2. The AC Wynyard Hobson proposal¹ includes:
 - a. The use and operation of land and water space associated with the AC36 event to be held in Auckland in the six-month period from December 2020 to May 2021, and any subsequent America’s Cup events held (with a six-month period each) during the 10-year period from the commencement of consent (“**Event Phase**”);
 - b. The use and operation of the seven syndicate bases including five bases on Wynyard Wharf known as Bases C to G, the Emirates Team New Zealand (“**ETNZ**”) syndicate base (Base A) located in the repurposed Viaduct Events Centre (“**VEC**”) on Halsey Wharf and the base on Hobson Wharf (Base B), for a period up to 10 years from the commencement of consent (“**Operational Phase**”);
 - c. The construction and establishment of temporary (up to 10 years) and permanent infrastructure including wharves, piles, berths, buildings and structures, and related works, services and access (“**Construction Phase**”).
3. At the time of finalising this Flow report, there is uncertainty as to the location of the Ferry and Fishing Industries (these include Sanford, SeaLink and Auckland Seaplanes). These are currently located within the vicinity of the proposed works and will need to be relocated or their operation adjusted during construction and/or events to accommodate the AC Wynyard Hobson project. It is anticipated that the fishing fleet operated by Sanford from the western side of the Halsey Wharf (adjacent to VEC), will remain in this location during the Construction and Operational Phases of the AC Wynyard Hobson project² and will move to another location during the Events Phase. The existing SeaLink Ferry and Auckland Seaplane facilities will need to vacate their existing locations.
4. A separate resource consent application for the Ferry and Fishing Industry Relocation Facility was lodged and notified in January 2018. This application is now on hold and does not form part of this AC Wynyard Hobson application. Should there be a requirement to build new facilities to accommodate the relocation of these industries, those effects will be subject to separate resource consent processes. Accordingly, the assessment for the AC Wynyard Hobson

¹ America’s Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 1.4 Page 4

² America’s Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 4.2.2 Page 36

application does not take into account any potential cumulative effects of construction traffic or operational access provisions of the relocated ferry, fishing and seaplane activities.

Submissions Summary

- 5 The submitters who have raised concerns in relation to transport effects can be categorised into the following groups:
- a. Residents body corporates representing residents within the areas
 - b. Businesses located within the areas
 - c. Business associations representing land owners and businesses within the areas
 - d. Community groups and individuals.
- 6 The transport effects of the proposal including the transport matters raised in the submissions have been reviewed and assessed in Sections 5, 6, 7, 8 of this report. We are satisfied that sufficient information has been provided by the Applicant to address the transport issues raised in the submissions above, although we note that information and supporting assessment relies on the Applicant mitigating and managing adverse transport effects through the development, implementation, monitoring and review of numerous transport plans during the Construction, Operational and Events Phases of the proposal.
- 7 As these plans are yet to be fully developed, it is considered reasonable that submitters should be given the opportunity to be consulted on the transport matters raised in their submissions. Subject to this consultation occurring, we consider that implementation, monitoring and review of the transport management plans will be adequate to avoid, remedy and mitigate adverse effects on the transport network during the Construction, Operational and Events Phases of the proposal, including future phases (within the 10-year consent period) should ETNZ successfully defend the cup during AC36.

Conclusions and Recommendations

- 8 Our main conclusions are that we generally agree with the information and proposed mitigation measures in the Beca TA report. We are however of the view that, as the majority of the transport related mitigation measures relate to the effectiveness of management plans, as well as having regard to the 10-year period of the consent, there needs to be the opportunity for Council, in conjunction with Auckland Transport, to monitor and review the transport related mitigation measures.

Construction Phase

- 9 In particular during the Construction Phase, the effectiveness of the Construction Staff Travel Plan will be critical in mitigating traffic and on-street parking effects generated by construction staff. While we agree that these effects will be acceptable if the mitigation measures are successful, this conclusion is based on the assumption of successful outcomes from the Construction Staff Travel Plan. Accordingly, there is a risk that if this plan is not effective, the traffic and parking effects during the Construction Phase will be more than minor. We therefore

recommend that a monitoring and review/amend condition be included that will allow Council, in conjunction with Auckland Transport, to early on, and on an ongoing basis if required, monitor the effectiveness of the Construction Staff Travel Plan, and amend it if need be.

Operational Phase

- 10 Similarly during the Operational Phase, the effectiveness of the Syndicate Staff Travel Plan will be critical in mitigating traffic and on-street parking effects generated by syndicate staff. We therefore recommend that a monitoring and review/amend condition of consent be included that will allow Council, in conjunction with Auckland Transport, to early on, and on an ongoing basis if required, monitor the effectiveness of the Syndicate Staff Travel Plan, and amend it if need be.
- 11 The provision of appropriate pedestrian and cyclist facilities allowing staff to walk, run, scooter and cycle to and from the syndicate bases during the Operational Phase, is considered to be a critical factor in the successful delivery of the Syndicate Staff Travel Plan. While separated facilities for pedestrians and people cycling is safer than shared facilities, given the likely volume of cyclists generated by the syndicate staff, we agree with the Applicant that this is unlikely to be sufficient to require them to upgrade the existing facilities provided in Wynyard Quarter during the AC36 Operational Phase. However, considering the unknown take up of cycling as a mode of travel by syndicate staff, we recommend that mode share and the need for separated facilities be reviewed as part of the monitoring and review/amend condition.
- 12 Further, considering the 10-year time period for the consent, and the changes to land use activity and associated increase in pedestrians and people cycling that is likely to occur in the Wynyard and Viaduct Harbour precincts over this time period, we recommend that, in conjunction with subsequent events (for example, say, AC37 should ETNZ successfully defend the cup during AC36), effects to pedestrians and cyclists during the Operational Phase of that event be re-evaluated. This process should allow Council and Auckland Transport to understand if changes to pedestrian and cycle infrastructure, on-street parking management and property access provisions resulting from future Operational Phases are required to be provided, as well an opportunity to update and amend the requirements the Syndicate Staff Travel Plan and the requirements in the Servicing, Delivery and Guest Transport Plans for Wynyard Point, Halsey Wharf and Hobson Wharf.

Events Phase

- 14 During the Events Phase of the projects, we conclude that transport effects on the operation of the immediate environment will be more than minor and will include a significant increase in pedestrians, people cycling, private vehicle and taxi movements to and from the Wynyard and Viaduct Harbour precincts and surrounding areas, especially on race days. Further, during this time there will be an increase in people travelling by bus and train to and from Fanshaw Street and the downtown area, as well as an increase in the demand for car and bicycle parking within, and on the outskirts of the Wynyard and Viaduct Harbour precincts. There may also be the requirement to close and/or manage certain parts of the road network, including on-street parking, during this time.

- 15 These significant transport effects are considered to be acceptable subject to the successful outcomes of the various transport management plans included in the Event Management Plan and therefore their review and refinement need to be on-going requirements to ensure that the desired outcomes are achieved.
- 16 As for the Operational Phase, we recommend that for future events following AC36, Council and Auckland Transport have the opportunity, following a monitoring and review process, to update and amend the requirements relating to the transport plans in the Event Management Plan.
- 17 Finally we note that due to the lack of detailed information associated with the transport design aspects of the bases' infrastructure and specific matters to be included in the various management plans, the majority of transport related submissions are from businesses and residents in the Wynyard and Viaduct Harbour precincts who are concerned about transport effects during the Construction, Operational and Events Phases of the project. As such we consider that the Proposed Conditions of Consent should be amended to allow for submitters to be consulted on the development, implementation and operation of the various management plans during each phase of the AC Wynyard Hobson proposal.

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APPENDICES

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APPENDIX B	UPDATED SAFETY RECORD
APPENDIX C	PREDICTED CHANGES TO TRAFFIC DEMAND DURING THE OPERATIONAL AND EVENTS PHASES

1 INTRODUCTION

- 1.1 Auckland Council ("**Council**") has requested Flow Transportation Specialists Ltd ("**Flow**") to review the traffic and transportation matters associated with the resource consent application by Panuku Development Auckland ("**Panuku**" or "**Applicant**") to construct, operate and use the infrastructure for the America's Cup Wynyard Hobson ("**AC Wynyard Hobson**") proposal.
- 1.2 Information included with the AC Wynyard Hobson application includes a suite of reports and set of drawings. Information provided by Panuku that has been specifically reviewed to inform this report includes:
- a. America's Cup, Traffic and Transport Technical Report for Resource Consent Application, Wynyard Hobson, Beca, 12 April 2018, Application Document 21 ("**Beca TA report**")
 - b. America's Cup, Physical Infrastructure Technical Report for Resource Consent Application, Wynyard Hobson, Beca, 12 April 2018, Application Document 9 ("**Beca Physical Infrastructure report**")
 - c. America's Cup Wynyard Hobson, Application for Resource Consent: Assessment of Environmental Effects, UNIO Environmental Ltd (**UNIO**), 13 April 2018, Application Document 4 ("**AEE**")
 - d. America's Cup Wynyard Hobson Proposed Conditions of Consent, 13 April 2018, Application Document 7, including the amended traffic conditions received from UNIO on 8 June 2018 ("**Proposed Conditions of Consent**")
 - e. America's Cup 36 Wynyard Hobson Proposal: Urban Design, Landscape and Planning Figures, 13 April 2018, Boffa Miskell, Application Document DS1
 - f. Further information including:
 - Letter dated 19 April 2018 to Council from UNIO: Further Information provided in relation to America's Cup Wynyard Hobson BUN60318372
 - Letter dated 8 May 2018 to Council from UNIO: Further Information provided in relation to America's Cup Wynyard Hobson BUN60318372
 - Letter dated 8 June 2018 to Council from UNIO: Further Information provided in relation to America's Cup Wynyard Hobson BUN60318372 – Traffic ("**UNIO 8 June letter**")
 - Bridge operations (subject to Legal audit, VHHL Board review and ACC Legal audit), 6 May 2010, attached as **Appendix A**.
- 1.3 Crystal Chan, Andrew Gratton and Mat Collins of Auckland Transport have also undertaken a review of the transport related matters of the application, sought comments from colleagues at Auckland Transport, and they have assisted in the preparation of this report.

2 SCOPE OF ASSESSMENT

- 2.1 The America's Cup 36 ("AC36") event is scheduled to be held in Auckland in March 2021.³ It is anticipated that the Challenger Series will be held in January and February 2021 with the Defender Series held in March 2021.
- 2.2 The AC Wynyard Hobson proposal⁴ includes:
- a. The use and operation of land and water space associated with the AC36 event to be held in Auckland in the six-month period from December 2020 to May 2021, and any subsequent America's Cup events held (with a six-month period each) during the 10-year period from the commencement of consent ("**Event Phase**")
 - b. The use and operation of the seven syndicate bases including five bases on Wynyard Wharf known as Bases C to G, the Emirates Team New Zealand ("**ETNZ**") syndicate base (Base A) located in the repurposed Viaduct Events Centre ("**VEC**") on Halsey Wharf and the base on Hobson Wharf (Base B), for a period up to 10 years from the commencement of consent ("**Operational Phase**")
 - c. The construction and establishment of temporary (up to 10 years) and permanent infrastructure including wharves, piles, berths, buildings and structures, and related works, services and access ("**Construction Phase**").
- 2.3 At the time of finalising this Flow report, there is uncertainty as to the where the Ferry and Fishing Industries (these include Sanford, SeaLink and Auckland Seaplanes) will be located. Currently, they operate within the vicinity of the proposed works and will need to be relocated or their operation adjusted during construction, operations and events to accommodate the AC Wynyard Hobson project. It is anticipated that the fishing fleet operated by Sanford from the western side of the Halsey Wharf (adjacent to VEC), will remain in this location during the Construction and Operational Phases of the AC Wynyard Hobson project⁵ and will move to another location during the Events Phase. The existing Sealink Ferry and Auckland Seaplane facilities will need to vacate their existing locations for all phases.
- 2.4 A separate resource consent application for the Ferry and Fishing Industry Relocation Facility was lodged and notified in January 2018. This application is now on hold and does not form part of this AC Wynyard Hobson application. Should there be a requirement to build new facilities to accommodate the relocation of these industries, those effects will be subject to separate resource consent processes. Accordingly, the assessment for the AC Wynyard Hobson application does not take into account any potential accumulative effects of construction traffic or operational access provisions of the relocated ferry, fishing and seaplane activities.

³ http://emirates-team-new-zealand.americascup.com/en/preview-news/258_THE-ANNOUNCEMENT-OF-THE-PROTOCOL-OF-THE-36TH-AMERICAS-CUP.html, retrieved 24 January 2018

⁴ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 1.4 Page 4

⁵ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 4.2.2 Page 36

- 2.5 The Beca TA report does include an assessment of access effects to the SeaLink Ferry⁶ and Auckland Seaplane⁷ activities should these facilities remain in their present locations during the Construction Phase.
- 2.6 In light of these matters, with regard to the AC Wynyard Hobson consent application, the assessment of the transportation effects has been limited to consideration of the following matters, and does not include any transport assessment with regard to the necessary relocation of Sanford, SeaLink and Auckland Seaplane activities:
- a. Traffic and transport effects during the Construction Phase of the infrastructure associated with the AC Wynyard Hobson proposal. As well as the wharves, piles, berths, buildings and structures, these infrastructure changes include the stopping of the southern section of Brigham Street and the construction of a new private road linking Hamer Street and Brigham Street⁸
 - b. Traffic and transport effects associated with Operational Phase(s) of the America's Cup activities, limited to the use of the syndicate bases and superyacht activity (ie after the Construction Phase and between each Event Phase over the 10-year duration of the consent)
 - c. Traffic and transport effects associated with the Event Phase(s), limited to the use of the syndicate bases and superyacht activity (ie December 2020 to May 2021 and for 6 months whenever the America's Cup returns to Auckland over the ten-year consent period).
- 2.7 This report provides a summary of the proposed facilities to be provided and then addresses each of the matters above in turn, identifying the data, information, assumptions and analysis that have been considered in forming Flow's opinions and conclusions.
- 2.8 Submissions that raise transportation matters are discussed in Section 9.
- 2.9 Proposed conditions of consent are discussed in Section 0 of this report. In particular Flow has had regard to the Applicant's Proposed Conditions of Consent and has suggested amendments and additions to these conditions to address and mitigate the adverse effects on the transportation network.

⁶ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 7.3.3.1, Page 77

⁷ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 7.3.7, Page 82

⁸ The southern portion of Brigham Street will be stopped to facilitate the construction of syndicate bases C – G. The road stopping process is separated from this resource consent application.

3 THE PROPOSED AMERICAS CUP WYNYARD HOBSON FACILITIES

3.1 The proposed AC Wynyard Hobson facilities to be constructed include:

- a. Five syndicate bases (three single and two double, known as Bases C, D, E, F, and G) located on Wynyard Point, including a new one-way Access Lane running parallel to Hamer Street, vehicle accesses between the Access Lane and Hamer Street and a footpath on the eastern side of Hamer Street
- b. Permanently stopping the southern part of Brigham Street, and the construction of a new east-west private road linking Hamer Street and Brigham Street (referred to as “**Northern Connector Road**”). It is noted that the stopping of Brigham Street is a separate process, which does not form part of the AC Wynyard Hobson application, although the transport effects of the road closure have been assessed in the Beca TA report
- c. One double syndicate base located on Hobson Wharf (known as Base B)
- d. The repurposing of the existing VEC located on Halsey Wharf for use as the ETNZ double syndicate base (known as Base A)
- e. Berthing for up to 17 superyachts on Halsey Street Extension Wharf and Hobson Wharf.

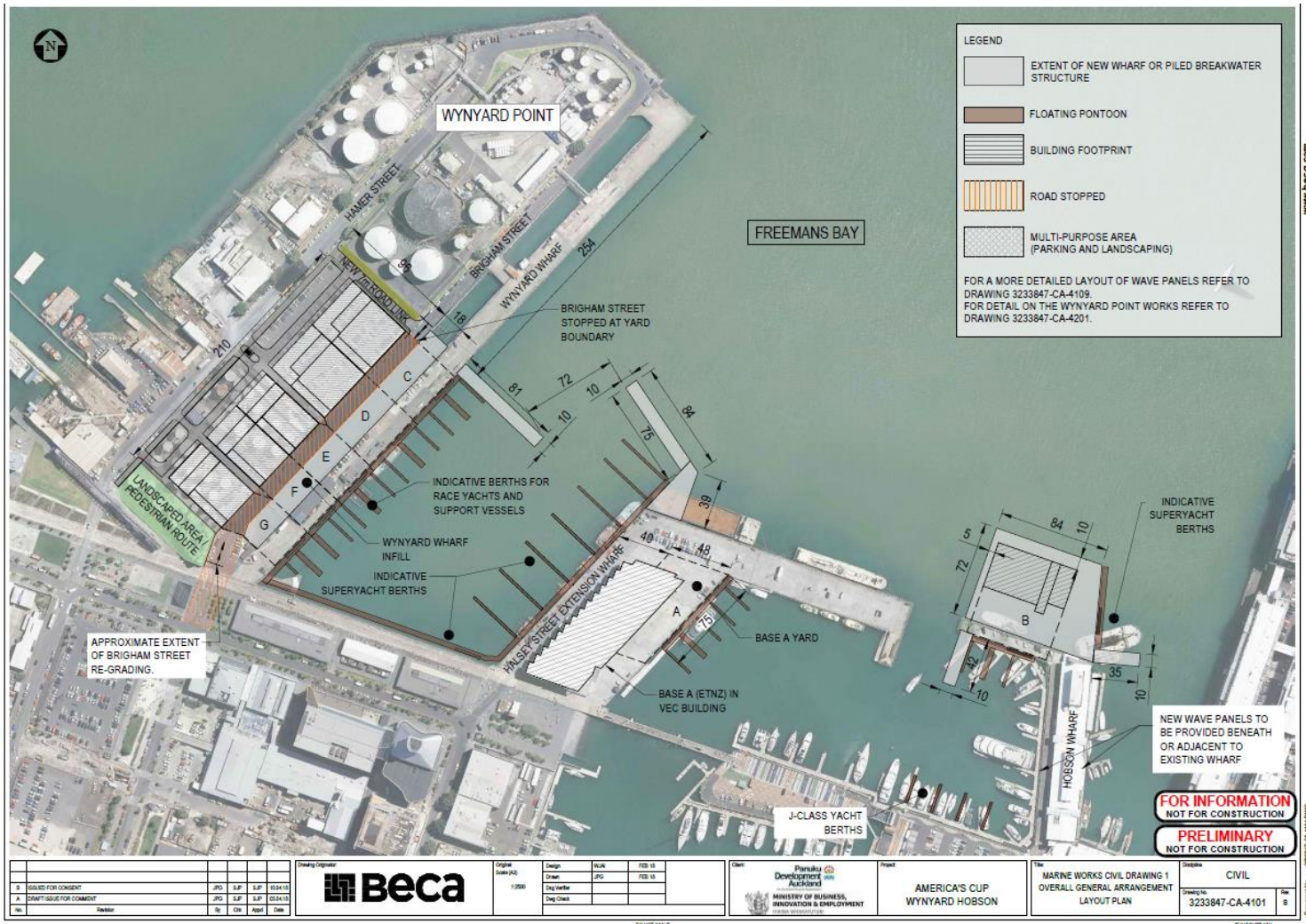
3.2 The location of these wharves (as they presently exist) is shown in **Figure 1** below, with the proposed bases A-G and wharf extensions shown in **Figure 2**.

Figure 1: Location of Existing Wharves⁹



⁹ America's Cup Engineering Concept Drawings for Report for Consent Application Wynyard Hobson, Beca April 2018, DS1.1, General Civil Engineering Drawing 1 Overall Existing Layout Plan CA-4001.

Figure 2: Proposed Wynyard Basin Wharf Layout Plan¹⁰

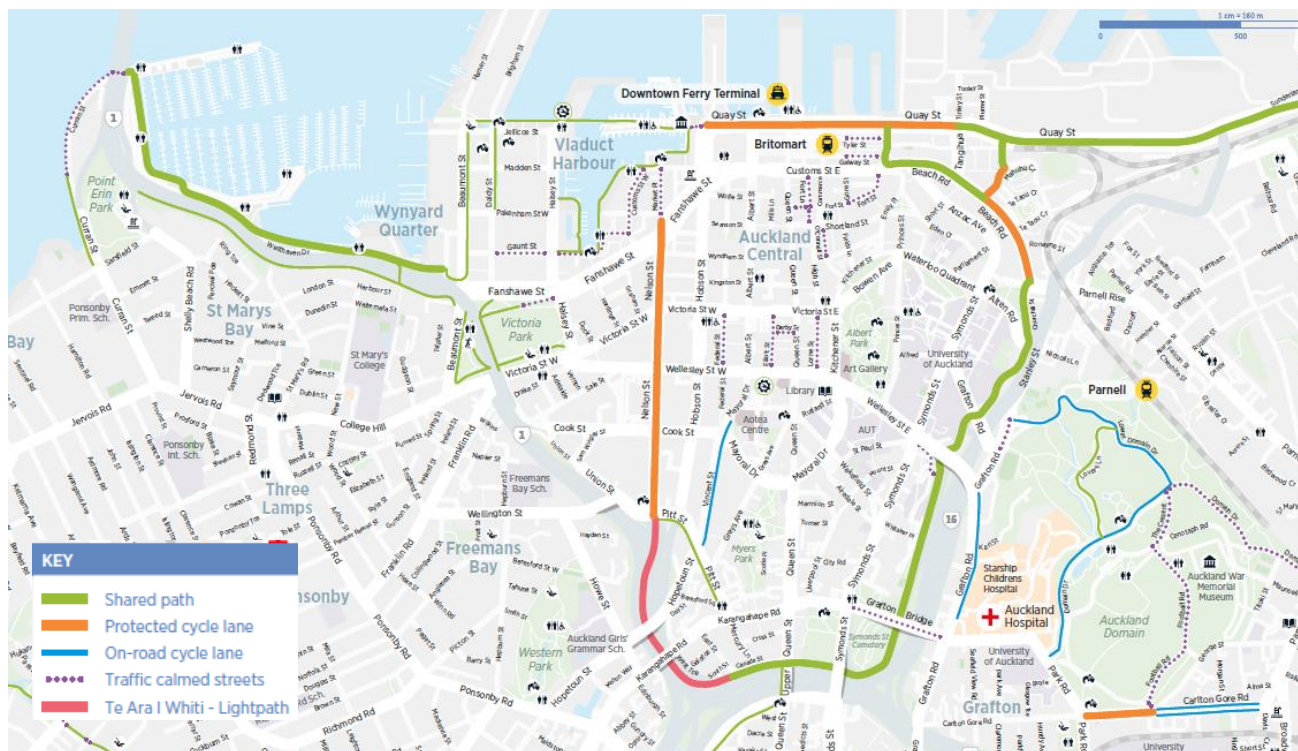


¹⁰ America's Cup Engineering Concept Drawings for Report for Consent Application Wynyard Hobson, Beca April 2018, DS1.1, Marine Works Civil Drawing 1 Overall General Layout Plan

4 THE SURROUNDING LAND USE AND TRANSPORT ENVIRONMENT

- 4.1 The Beca TA report, at Section 3, provides a detailed description of the existing land use and transport environment in the Wynyard and Viaduct Harbour precincts, as well as the wider transport environment. This information includes descriptions of the current land uses of the various subject sites, the roads in the vicinity of the sites, the surrounding parking environment, public transport infrastructure and services, walking and cycling infrastructure, existing traffic volumes and peak period operation of the key roads within the Wynyard and Viaduct Harbour precincts, and the existing safety record of roads close to the Wynyard Hobson subject sites.
- 4.2 It is considered that this information provides a good background to understanding the transport environment and operation, although it seems to be relatively light with regard to provision for and effects on people cycling. In this regard, we note that Auckland Transport has a central city cycle map on their website (refer **Figure 3** below), which shows shared path facilities on Beaumont Street, Daldy Street and North Wharf, connecting to protected cycle lanes on Quay Street and Nelson Street and shared paths along Westhaven Drive and around Victoria Park. It is noted that this plan was developed by Auckland Transport without knowledge of what would be required to help support the expected increase in people cycling that would be anticipated as a result of the America's Cup facilities being located in the Wynyard Quarter and Viaduct Harbour precincts.

Figure 3: Auckland Transport's Auckland Central City Cycle Map¹¹



¹¹ Sourced on 31 May 2018 from <https://at.govt.nz/cycling-walking/cycle-walking-maps/auckland-central-city-cycle-map/>

- 4.3 Together with information from Auckland Transport and an updated safety assessment completed by Flow and summarised in **Appendix B**, we highlight the following matters, which we consider are important to take account of when assessing the transport effects of this project:
- a. The wider pedestrian and cycling environment, and in particular, the existing pedestrian and cycling facilities and the current mixing of people cycling with pedestrians along busy areas including North Wharf, the Wynyard Crossing bridge, Te Wero Island and the Eastern Viaduct, which can result in congested during busy times. The Wynyard Crossing bridge is a lifting bridge with boats entering and exiting the Viaduct Basin having right of way over pedestrians and cyclists wanting to travel between the Wynyard and Viaduct Harbour precincts.
 - b. Safety of vulnerable travellers mixing with construction vehicular traffic, in particular:
 - i. along Beaumont Street;
 - ii. along Daldy Street;
 - iii. along Halsey Street;
 - iv. at Karanga Plaza, which provides access to North Wharf and the Wynyard Crossing, both of which are shared pedestrian/cyclist facilities, and also accommodates a driveway to Halsey Wharf and the VEC, with a zebra crossing providing priority to pedestrians;
 - v. at Silo Park, which includes shared pedestrian/cyclist facilities, with a zebra crossing located on Hamer Street; and
 - vi. through the Eastern Viaduct.
 - c. The congested road network within and surrounding the Wynyard Precinct during peak commuter periods, and in particular during the evening peak as traffic attempts to egress the Wynyard Precinct.
 - d. The importance of Fanshawe Street as the major east-west traffic and bus arterial, between the State Highway 1 Northern Motorway, the Northern Busway and the downtown area of Auckland city.
 - e. Committed changes to the bus infrastructure and bus services on Halsey Street, Jellicoe Street, Beaumont Street and Gaunt Street, including a new bus station/stops on Halsey Street.
 - f. The existing poor provision of continuous pedestrian footpaths on Hamer Street.
 - g. The existing footpath marked for pedestrians and people cycling to share on the eastern side of Beaumont Street.
 - h. The existing and planned shared facility for pedestrians and cyclists on Daldy Street.
 - i. The existing demand for parking on Hamer and Brigham streets during a weekday is high especially in the unrestricted parking spaces.

- j. Ongoing redevelopment of sites within the Wynyard and Viaduct Harbour Precincts as well as street works on the roads within and surrounding these precincts, resulting in additional construction traffic.
- k. The arterials roads of Quay Street and Lower Hobson Road, which provide access to the Viaduct Harbour Precinct and both carry significant daily and peak hour traffic volumes.
- l. The ongoing construction works in the near vicinity of the Viaduct Harbour Precinct, including the construction of the Central Rink Link project and construction of the Commercial Bay project on Quay Street.
- m. Recently lodged resource consent applications for the Seawall Upgrade along Quay Street and Ferry Terminal Piers 3 and 4 Relocation as well as upcoming streetscape works on Quay Street and the Britomart East Bus Interchange.
- n. There are over 3,800 parking spaces located in private and Auckland Transport owned parking buildings within a 10 to 15 minute walk of the proposed AC Wynyard Hobson bases¹², although it is noted that wait time at signalised intersections and possibly at the Wynyard Crossing bridge would lengthen these walk times, and some of this parking is privately leased, so may not be available for public use.

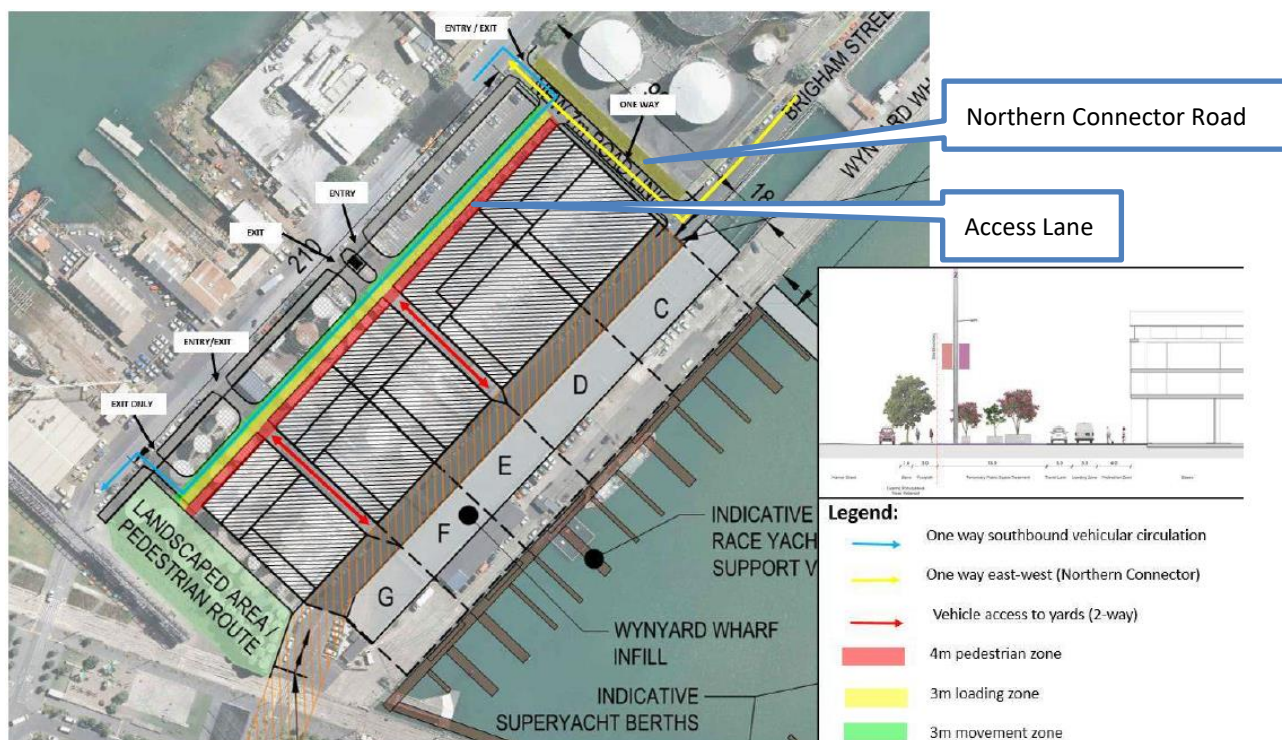
¹² America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Table 3-5, Page 27

5 APPLICANT'S PROPOSED TRANSPORT INFRASTRUCTURE CHANGES

5.1 Wynyard Point

5.1.1 The concept design and access proposals for the five Wynyard Point bases, including the stopping of Brigham Street and the opening of the Northern Connector Road, are shown in **Figure 4** below. These changes are anticipated to be implemented during the Construction Phase and continue through the Operational and Event Phases.

Figure 4: Proposed Wynyard Point Bases¹³



Stopping of Brigham Street

5.1.2 The stopping of Brigham Street is a separate process from, and does not form part of, the AC Wynyard Hobson resource consent application, however, it is assumed as an inherent principle of the AC Wynyard Hobson proposal. It is understood that Panuku has liaised with Auckland Transport separately on this matter and both parties have agreed on the layout of the road network design and any easements required in relation to the provision of the Northern Connector Road.

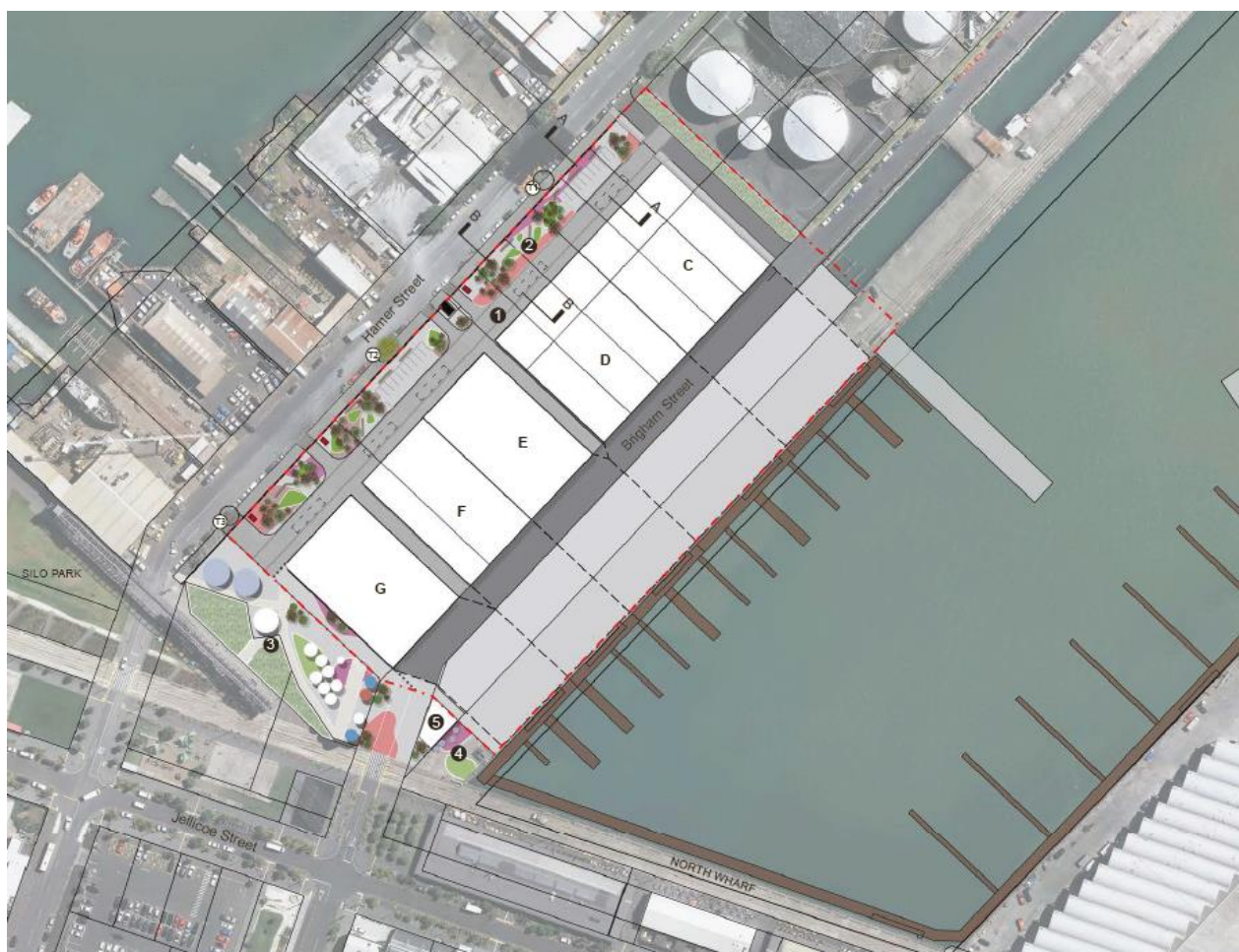
Southern Section of Brigham Street

5.1.3 The proposed changes remove the potential crash risks between vehicles and pedestrians/cyclists at the existing Brigham Street crossing of North Wharf, which is positive. As shown in **Figure 5**, it appears that the proposal suggests the areas either side of the stopped

¹³ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Figure 4-3, Page 34

section of Brigham Creek between North Wharf and Base G will become a plaza area (items 3 and 5 in **Figure 5**), with the stopped section of Brigham Creek between Jellicoe Street and North Wharf remaining with the appearance of a road. It is understood that the only use of these stopped sections of Brigham Street will be for the managed limited exit from the bases of oversized loads and two-way emergency vehicle movements¹⁴. It is recommended that careful consideration is given to the layout and design of both of these sections of stopped road to ensure that the potential for conflicts between vehicles, pedestrians and people cycling is eliminated, and that adequate advice/delineation is given that this section of Brigham Street is closed to vehicles (other than those authorised to use it) or alternatively (ideally) the section of stopped Brigham Street between Jellicoe Street and North Wharf is also designed as a plaza.

Figure 5: Proposed Wynyard Point Bases: Public Realm Integration¹⁵



5.1.4 With the anticipation that base staff, as well as the general public, will wish to cycle to and from the bases and around the general area, it is suggested that an appropriate connection through the stopped southern part of Brigham Street be provided for people cycling as well as pedestrians. Prior to this report being finalised, this matter was discussed with the Applicant,

¹⁴ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 4.2.1 Page 36

¹⁵ America's Cup 36 Wynyard Hobson Proposal, Urban Design, Landscaping and Planning Figures, Boffa Miskell, 13 April 2018, Wynyard Point Bases: Public Realm Integration. Page 8

and it was agreed at a meeting on 6 June 2018 that the number of staff cycling could be between 10% and 20% of staff and that this is unlikely to trigger a need to change the existing shared (pedestrian/cyclist and vehicle/cyclist) facilities further afield (for example on Daldy and Beaumont Streets). Accordingly, it was agreed that shared facilities be provided through the stopped section of Brigham Street between Daldy/Jellicoe Streets and North Wharf/Silo Park, and onward to Hamer Street and the Access Lane. This is further discussed at paragraphs 5.1.15 and 7.6.3.

- 5.1.5 Accessibility for people cycling to/from the Wynyard Point bases during the Events Phase will be addressed as part of the Event Management Plan through a Cycle Management Plan, which will be required as a condition of consent. This is further discussed at paragraph 5.1.16, although it is noted that during busy spectator times, people cycling are likely to need to walk with their bikes, or park them and walk.
- 5.1.6 Considering the 10-year time period of the AC Wynyard Hobson proposal and the changes to land use activity and associated increases in pedestrians and people cycling that is likely to occur in the Wynyard and Viaduct Harbour precincts over this time period, we recommend that in conjunction with subsequent events, say AC37, should ETNZ successfully defend the cup during AC36, that effects of the AC Wynyard Hobson proposal to pedestrians and people cycling during the Operational and Event Phases be re-assessed. This process should allow Council and Auckland Transport to understand if changes to pedestrian and cycle infrastructure resulting from the Operational and Events Phases are required to be provided.

Mid Section of Brigham Street and Northern Connector Road

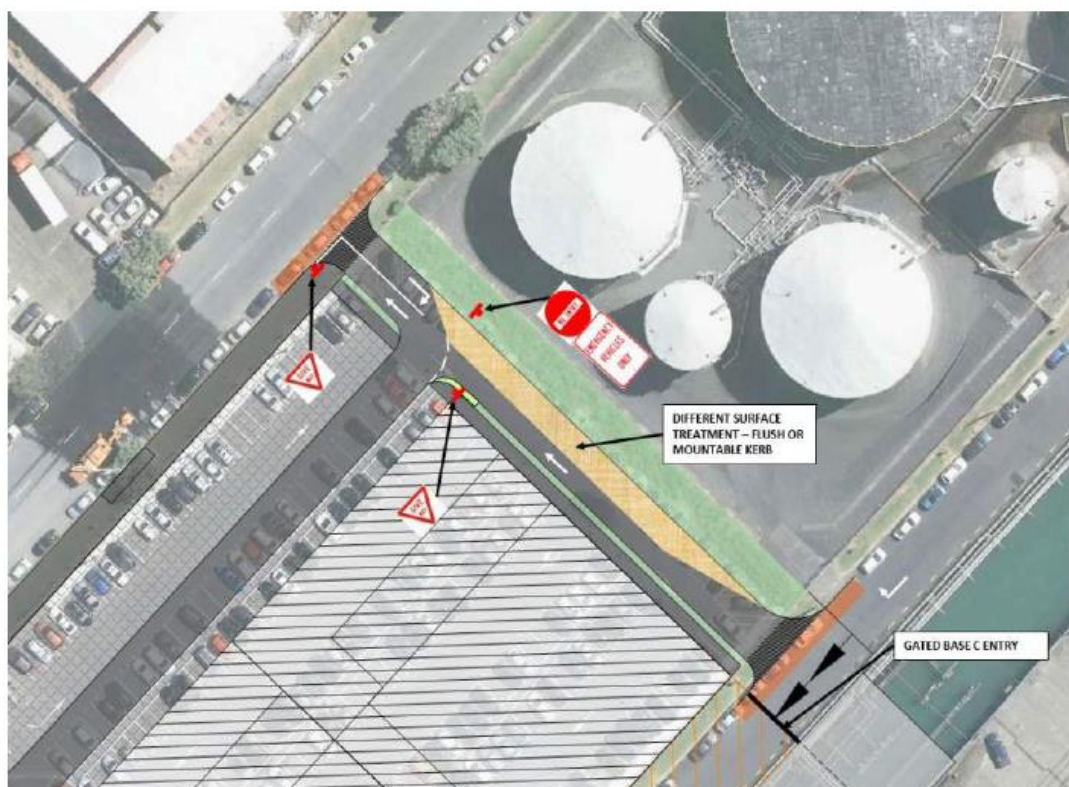
- 5.1.7 Once Brigham Street is stopped, traffic will become one way on the remaining northern part of Brigham Street and will be diverted through the new private Northern Connector Road with a left (or right) hand turn onto Hamer Street. Necessary road marking and signage will need to be provided to facilitate these changes and the owner of this private road will need to maintain such road markings and signage, as well as ensure that the road is available at all times. Further, an easement will be required over the private road to ensure that the road will always be open for public use. Provided that these measures are implemented, the effect to vehicle movement is considered to be acceptable.
- 5.1.8 Emergency access will be able to use Hamer Street and the Northern Connector Road as well as be provided with access through the stopped portion of Brigham Street when required, albeit that this will likely require emergency vehicles to be able to pass through any gates separating the bases (likely requiring keys/codes etc). The road will be stopped on a permanent basis even though the proposed consent for the bases will have a 10-year consent period. The stopped road will return as land to Panuku and we understand that it may be utilised as part of a future park.¹⁶ The design of this area will therefore need to include provisions for emergency vehicles, as well as vehicle carrying oversized loads exiting from the bases.

¹⁶ America's Cup 36 Wynyard Hobson Proposal, Urban Design, Landscaping and Planning Figures, Boffa Miskell, 13 April 2018, Wynyard Hobson Legacy Non-Event Mode, Page 6

5.1.9 The resulting road network is shown in Figure 6-1 of the Beca TA report and includes altering the northern ends of Hamer Street (from north of the access to 124 Hamer Street) and Brigham Street to one-way clockwise traffic circulation, with the new Northern Connector Road linking Brigham Street to Hamer Street. This new Northern Connector Road is envisaged to be a private road with the concept design shown in **Figure 6**, allowing for a 6.0 m wide landscaping strip along the northern edge, a 7.0 m wide carriageway and a 1.0 m landscape berm and 2.0 m footpath on the southern side. It is understood that no parking will be allowed on this road and that the final design will be completed in consultation with Auckland Transport. In this regard, we note that Auckland Transport has indicated that they do not accept that the right turn movement from the Northern Connector Road into the Access Lane serving the bases should have the right of way over westbound through traffic on the Northern Connector Road, and the concept design should be accordingly altered.

5.1.10 Subject to this alteration and the provision of appropriate facilities for both pedestrians and cyclists between Daldy Street/Jellicoe Street and North Wharf/Silo Park and onward to Hamer Street and the Access Lane, we consider that the concept design is suitable to accommodate the expected transport demands and will adequately mitigate the effects of stopping the southern section of Brigham Street.

Figure 6: Northern Collector Road Concept¹⁷



¹⁷ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Figure 4-4, Page 35

Parking

- 5.1.11 As well as the temporary ASB parking area being removed to provide for the Wynyard Point bases, on-street parking spaces on Hamer Street and Brigham Street¹⁸ will be removed to provide for the proposed one-way arrangement and layover area for AC36 construction trucks. This is discussed further in Section 6.3.14 of this report, however, it is considered that the Applicant in conjunction with Auckland Transport, should prepare Parking Management Plans, which should be implemented, monitored, reviewed and revised during the different phases of the project.
- 5.1.12 This matter had been further addressed in the UNIO 8 June 2018 letter at page 2 and we consider that:
- a. During the Construction Phase, the on-street Parking Management Plan can form part of the Construction Traffic Management Plan (“CTMP”) and should be focused on managing the on-street parking provision in the vicinity of each construction site, as generally shown in Figure 4-4 of the Beca TA report. The Parking Management Plan should also ensure that no on-street all-day parking is provided for construction staff associated with the implementation of the bases. This may require that the parking management geographical area extend further than the immediate adjacent streets to each site, but it is acknowledged that it will not need to include the entire Wynyard Precinct.
 - b. During the Operational Phases, the Applicant has suggested that the on-street parking management can be addressed through the Syndicate Staff Travel Plans as a separate item. We prefer that the Syndicate Staff Travel Plans should be used to inform syndicate staff that they should not be using on-street parking and that a separate Parking Management Plan be prepared for the Operational Phases. While the Traffic and Parking Management Plan will be focused on managing the on-street parking provision in the vicinity of each construction site, it may be required that the parking management geographical area extend further than the immediate streets adjacent to the bases, especially if through the review process, it is found that staff are parking on streets within the Wynyard Precinct.
 - c. During the Events Phases, the on-street parking management can be addressed as part of the proposed Traffic and Parking Management Plan. It is likely that the geographical extent of this plan will extend over the Wynyard and Viaduct Harbour precincts.

Mitigation for Stopping Brigham Street

Key Recommendations

The detailed design and construction of the Northern Connector Road shall be to the satisfaction of Team Leader Compliance Monitoring Central¹⁹ in general accordance with the concept design given in Figure 4-4 of the Beca TA report, with changes to the design including that the right turn movement from the Northern Connector Road into the Access Lane serving the bases has to give way to

¹⁸ America’s Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Figure 7-7, Page 79

¹⁹ The Team Leader Compliance Monitoring Central for the time being of the Council’s Resource Consent Monitoring unit

westbound through traffic on the Northern Connector Road and that pedestrian and cyclist connections shall be retained between Daldy Street/Jellicoe Street and North Wharf/Silo Park through the provision of appropriate facilities, and onward to join Hamer Street and the Access Lane.

These works shall be constructed before any section of Brigham Street is closed. However, if Brigham Street needs to be temporarily closed before it is permanently stopped a Traffic Management Plan (**TMP**) shall be prepared subject to approval from the Team Leader Compliance Monitoring Central. This TMP shall identify diversion routes, signage and other measures to advise of the temporary closure and to ensure safety for all transport modes and to mitigate any effects of the closure²⁰.

During the Event Phase a Pedestrian and Cycle Management Plan shall be implemented with an appropriate monitoring, review and revision process to ensure desired outcomes are achieved. These outcomes should include the provision of safe routes for pedestrians and people cycling to travel to and from the event area.

The Applicant in conjunction with Auckland Transport, shall prepare Parking Management Plans, which shall be implemented during the different phases of the project with appropriate monitoring, review and revision to ensure desired outcomes are achieved. These outcomes should include that on-street parking is not used by construction or syndicate staff, and that any changes to on street parking should be focused on the provision of short term visitor parking and goods only parking.

Access to the Wynyard Point Bases

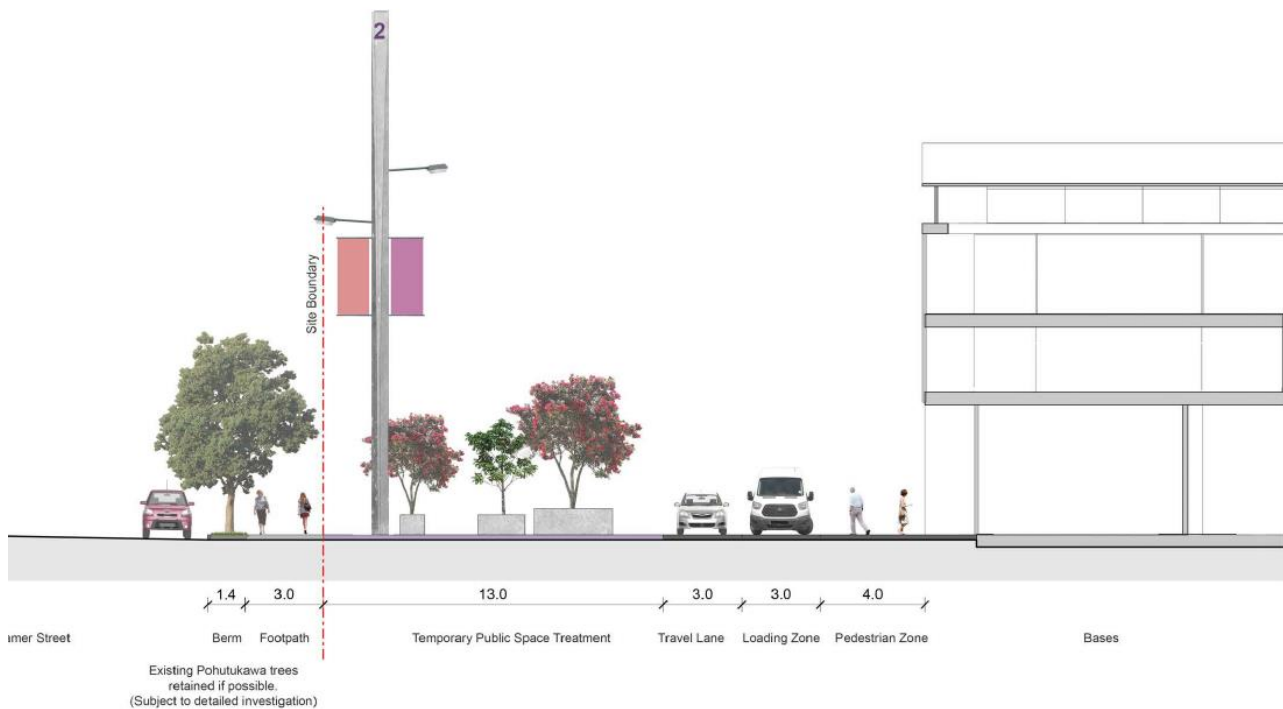
Pedestrian Access

- 5.1.13 The proposals include the construction of a new footpath on the eastern side of Hamer Street between the new Northern Connector Road and Silo Park, as shown in Figure 6-3 of the Beca TA report. A new north-south pedestrian link is also proposed internal to the site, along the **Access Lane**, which will result in improved pedestrian facilities in this area of Wynyard Point and as such, is supported.
- 5.1.14 The typical cross section of the Access Lane is shown in **Figure 7** and while a 4.0 m wide pedestrian zone adjacent to the bases, a 3.0 m wide loading zone, and 3.0 m wide southbound only vehicle lane is shown, it is understood that this area is intended to operate as a shared zone with low vehicle speeds. The Beca TA report notes that a key design objective for the Access Lane will be to provide for the safety of all users with particular regard to pedestrians and cyclists²¹. We recommend that the design of the Access Lane has specific input from road safety engineers who have experience in the design of shared zones, particularly as the Access Lane provides for southbound vehicle movements only, but pedestrians and cyclists may want to travel in both directions and means to ensure the safety of cyclists specifically, could be difficult. Road safety audits should also be undertaken.

²⁰ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 6.2, Page 60

²¹ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018; Page 35

Figure 7: Proposed Cross Section of the Access Lane and Location of New Footpath on Hamer Street²²



Access for People Cycling

5.1.15 No dedicated provisions are proposed for people cycling along Hamer Street or the Access Lane. In discussion with the Applicant²³, we understand that the design of the Access Lane will not include delineated areas for any transport mode and as such during the Operational Phase, it is the intention that cyclists will be able to share the area with pedestrians and vehicles. This could create safety concerns if cyclists act like pedestrians and cycle in northbound as well as southbound directions, compared to vehicles, which are to be limited to southbound movements only. Taking into account the proposed design of the Access Lane as a slow speed, shared area environment and the anticipated number of pedestrians, people cycling and vehicles on the Access Lane during the Operational Phase, this arrangement could be acceptable provided that the means to address the potential conflicting directions of travel between cyclists and drivers can be implemented.

5.1.16 During the Event Phases, there will be a high turnover of dropping off and picking up people along the Access Lane and the vehicle space (3 m wide loading zone and 3 m wide traffic zone) will be being used by motorists pulling in and out of the loading zone area with doors being opened to let people in and out of vehicles. The pedestrian zone will also accommodate people getting out

²² America's Cup 36 Wynyard Hobson Proposal, Urban Design, Landscaping and Planning Figures, Boffa Miskell, 13 April 2018, Wynyard Point Bases Public Integration Typical Cross Section, Page 9

²³ Meeting between Flow, Auckland Transport, Beca and UNIO on Wednesday 6 June 2018

and in of vehicles as well as a considerable number of spectators as well as people waiting and walking around. Accordingly, it is considered that it will be difficult for cyclists to be able to travel freely along the Access Lane. This matter has been discussed further with the Applicant, and it was agreed²⁴ that during the Events Phase, cyclists will be encouraged before entering the southern end of the Access Lane to dismount and park their bicycles, and then access the Access Lane by foot, or push their bikes. This is considered acceptable, as during the Events Phase the bases can be regarded as a destination with cyclists arriving by bike, parking and then accessing the area by foot. It will be important that as part of the Pedestrian and Cycle Management Plan, areas of secure bicycle parking provision are identified and implemented.

Vehicle Access

- 5.1.17 As shown previously in **Figure 4**, the transport related design aspects of the five syndicate bases include three vehicle accesses from Hamer Street (two, two-way accesses and one egress only access) and one access from the Northern Connector Road (entry only) into a new one-way southbound only lane, located to the west of the syndicate bases.
- 5.1.18 The concept design of the Hamer Street vehicle crossings to the bases as shown in **Figure 4** (including tracking assessment) has been reviewed, and while the designs are not 100% compliant with the design rules in the Transport Chapter of the Auckland Unitary Plan, Operative in Part, we consider the concept designs to be fit for purpose and can be used as a basis for the preliminary design. Notwithstanding this, we note that where the Hamer Street and Northern Connector Road footpaths intersect a new vehicle crossing to the bases, the overlapped area shall be designed and constructed to the same levels, using the same materials, kerbing, paving, patterns and finish as the footpath, on each side of the crossing.

Key Recommendations

- a. The detailed design and construction of access to the Wynyard Point bases, including the Access Lane, shall be to the satisfaction of Team Leader Compliance Monitoring Central in general accordance with Beca Drawing 3233847-CA-4201, Revision B, Wynyard Point Works Civil Drawing 1, General Arrangement Plan, and McIndoe Urban Boffa Miskell Drawing Wynyard Point Bases Public Realm Integration, Date 13 April 2018, Revision A. The design of the Access Lane shall have specific input from road safety engineers who have experience in the design of shared zones. A road safety audit shall be undertaken on the detailed design and after construction, and the reporting and decisions shall be provided to the Team Leader Compliance Monitoring Central.
- b. All works in the road reserve shall be finalised by Engineering Plan Approval process and be in compliance with Auckland Transport's engineering standards. Any permanent traffic and parking changes within the road reserve as a result of the development will require Traffic Control Committee (TCC) resolutions. For changes to the road reserve to be legally implemented and

²⁴ Letter dated 8 June 2018 to Council from Unio Environmental: Further Information provided in relation to America's Cup Wynyard Hobson BUN60318372 – Traffic, Page 2

enforced, the resolutions, prepared by a qualified traffic engineer, need to be provided to Auckland Transport's Traffic Control Committee. The resolution process may require public consultation to be undertaken in accordance with Auckland Transport's standard procedures. It is the responsibility of the consent holder to prepare and submit a permanent Traffic and Parking Changes report to Auckland Transport Traffic Control Committee for review and approval.

- c. All vehicle crossings to the bases over the Hamer Street and Northern Connector Road footpaths shall be designed and constructed to the same levels as the footpaths, using the same materials, kerbing, paving, patterns and finish as the footpath, on each side of the crossing, to ensure that they are perceived as driveways rather than roads.
- d. The Pedestrian and Cycle Management Plan for the Event Phase shall include the identification and implementation of secure bicycle parking.
- e. In conjunction with subsequent events, say AC37, should ETNZ successfully defend the cup during AC36, the effects of the AC Wynyard Hobson proposal on pedestrians and people cycling in the public realm of the Wynyard Bases during the Operational Phase shall be re-assessed. This process shall allow Council and Auckland Transport to understand if changes to pedestrian and cycle infrastructure resulting from the Operational Phase are required to be provided.

5.2 Halsey Wharf

- 5.2.1 The VEC will be repurposed and used as base for ETNZ for up to the 10-year period of the consent. During the Construction and Operational Phases, the fishing industry will continue to operate from the Halsey Street Extension wharf and Outer Viaduct Harbour. It is understood that no permanent changes are proposed to the transport network in relation to the proposed AC Wynyard Hobson infrastructure at Halsey Wharf. Transport related effects of the proposal are discussed in Section 7.3 of this report.

5.3 Hobson Wharf







- 5.3.1 Hobson Wharf will have a double base and public plaza area constructed on it. Access to the wharf is from the Eastern Viaduct, joining Quay Street at its intersection with Lower Hobson Street. No permanent changes are proposed to the transport network on Hobson Wharf or the Eastern Viaduct, from which access is gained to the wharf. Transport related effects of the change in use are discussed in Section 7.4 of this report.

6 TRAFFIC AND TRANSPORT EFFECTS DURING CONSTRUCTION PHASE

6.1 Construction Programme and Methodology²⁵

- 6.1.1 It is understood that the construction period will be 20 to 24 months, with the final three months being the construction of base buildings E, F and G.²⁶ It is noted that the Beca Physical Infrastructure report states that 24 hours per day, 6 to 7 days per week construction operation will be required.²⁷
- 6.1.2 The anticipated construction periods for the various sites' different components are summarised in Appendix C of the Beca TA report with a summary of this provided in **Table 1** below.

Table 1: AC36 Wynyard Hobson: Proposed Construction Programme

Works	Months	May 2018 to Oct 2018	Nov 2018 to April 2019	May 2019 to Oct 2019	Nov 2019 to April 2020
Early Works	6				
Halsey Wharf and VEC	9				
Hobson Wharf	9				
Wynyard Point Repairs to Existing Wharf	9				
Wynyard Point Landside	15				
Wynyard Point Marine Side	9				

6.2 Construction Traffic Generation and Heavy Vehicle Routes

- 6.2.1 In addition to presenting the above programming information, the Beca TA report, Appendix C contains a detailed analysis of the expected vehicle movements associated with the construction activities, which has been developed by Construction Consulting Group and has been used by Beca to predict the amount of heavy²⁸ (truck and trailers, concrete trucks and hiab trucks) and light (cars and vans) vehicle movements to the various construction sites per month. Consideration of the movement of people cycling and pedestrians (including those walking to and from downtown parking areas, the train station and bus stops) who may be part of the construction workforce are not included in their assessment.

²⁵ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 4.3.1, page 38 and Section 5.2.1, page 49

²⁶ *ibid*, page 50

²⁷ America's Cup Physical Infrastructure Technical Report, for Consent Application Wynyard Hobson Beca, April 2018, Executive Summary

²⁸ Heavy vehicles are those with a maximum gross vehicle mass of over 3,500 kilograms

6.2.2 The assumptions in delivering these estimates and the resulting truck and car/ute predictions, which are summarised in Tables 5-1, 5-2, 5-3 and 5-4, and Figure 7-5 of the Beca TA report, have been reviewed and are deemed appropriate for the purposes of assessing the transport effects of construction, noting that any construction related activity for the relocation of the ferry, fishing and seaplane activities has not been included in the Beca assessment.

Summary / Key Recommendations

Assumptions regarding concrete pours occurring in the early morning (between midnight and 6 am) and the confirmation of truck movements throughout the day should be included in the CTMP conditions of consent.

Given there is uncertainty around whether or not the Sanford fishing fleet, the SeaLink Ferry and the Auckland Seaplane facilities will remain operating from Wynyard Point and Halsey Wharfs during the Construction Phase, assumptions regarding the provision of appropriate access to these activities during construction need to be considered as a condition of consent.

Heavy Vehicle Routes

- 6.2.3 The proposed heavy vehicle routes serving each subject site are shown in Figures 7-1, 7-2 and 7-3 of the Beca TA report. We agree with Beca's assessment that these routes are suitable subject to the implementation of the recommendation that no heavy vehicles movements associated with AC36 construction shall arrive or depart the construction sites on a weekday between the peak commuter periods of 7 to 9 and 4 to 6 pm²⁹. In addition, we agree that the confirmation of these routes should be included in the CTMP allowing Auckland Transport and Council the opportunity to take into account the timing of other planned works in the area³⁰, including street upgrades to Beaumont Street, the implementation of infrastructure associated with upgrades to public transport in the Wynyard Precinct, and works to the seawall on Quay Street.
- 6.2.4 We also concur with Beca's recommendation that no heavy movements occur on Daldy Street during the day.³¹ If this street is required to be used by large construction/over dimensional vehicles accessing Bases C to G, then this should be completed before 6 am or after 9 pm.

²⁹ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Sections 7.3.2.3 and 7.3.2.4, Page 76

³⁰ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 7.1.4, page 68

³¹ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 7.3.2.5, page 77

Summary / Key Recommendations

The truck routes shown in Figures 7-1, 7-2 and 7-3 of the Beca TA report are considered appropriate for the purpose and should be included in the CTMP condition of consent. The use of these routes should be subject to confirmation by Auckland Transport and Council and heavy vehicle access and egress to and from the construction sites and layover areas should be prohibited during peak traffic periods of 7 to 9 am and 4 to 6 pm. Further, the use of Daldy Street by heavy vehicles should be limited to large construction over dimensional vehicles accessing Bases C to G between 9 pm and 6 am.

Truck Layover

- 6.2.5 Temporary truck layover areas are proposed to be established on the north-eastern side of Brigham Street and on the Eastern Viaduct for trucks to wait during the busy days and at night when concrete pours occur. Trucks waiting on Brigham Street must not impede the passing of other vehicles using this road. Similarly, trucks waiting on the Eastern Viaduct must not impede the passing of other vehicles accessing, for example, Te Wero Island. It is important that any heavy vehicle movements through the Eastern Viaduct continue to be physically separated from pedestrians and cyclists.

Summary / Key Recommendations

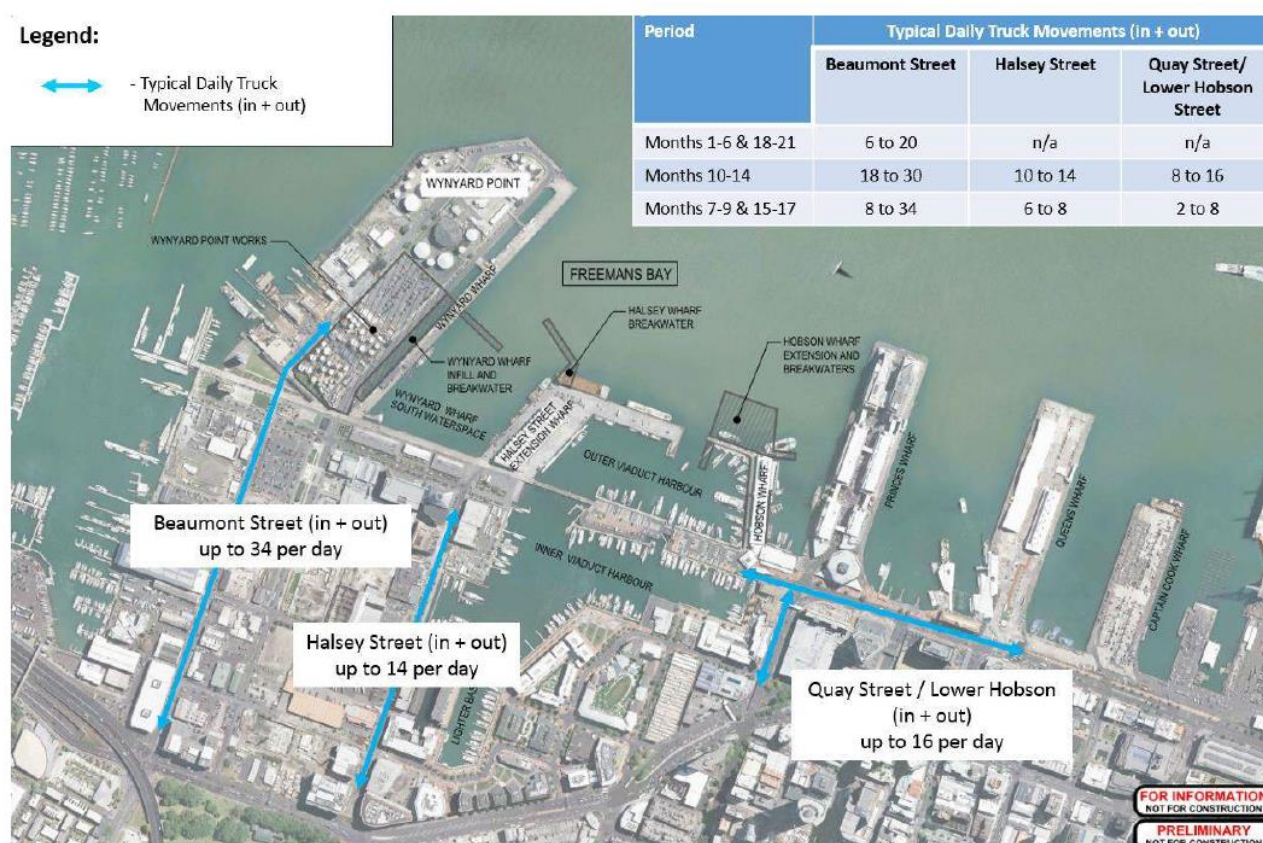
The location of the temporary truck layover areas as shown in Figure 7-4 of the Beca TA report is considered appropriate for the purpose and should be included in the CTMP condition of consent, with conditions that require them not to impede the passing of other vehicles.

All vehicle movements through the Eastern Viaduct shall be physically separated from pedestrians and people cycling.

Heavy Vehicle Traffic Demands

- 6.2.6 The Beca TA report, Figure 7-4 is copied below in **Figure 8** and highlights the estimated typical truck generation during the various stages of construction on the construction routes.

Figure 8: Proposed AC Wynyard Hobson Predicted Construction Traffic Demands³²



6.2.7 The typical daily truck generation for the AC36 construction works is predicted to occur on Beaumont Street with up to 30 to 34³³ truck movements per day, which equates to 3 to 4 truck movements per hour (assuming an 8 to 10 hour working day). This level of truck traffic is anticipated to occur for 11 months (month 7 to month 17). AC36 construction traffic is anticipated to include 1 to 2 truck movements per hour each on Halsey Street and Quay Street/Lower Hobson Street over the entire construction period.

6.2.8 During times of concrete pours, which are said to occur at night, construction-related truck movements on Beaumont Street, Halsey Street and Quay Street/Lower Hobson are predicted to almost double the above typical daily volumes to a maximum of 60 truck movements per night on Beaumont Street and a maximum of 22 truck movements per night each on Halsey Street and Quay Street/Lower Hobson Street. The extra truck movements over the typical movements are expected to occur during the two to three hour overnight period. Therefore, the daytime truck movements will remain as between 3 and 4 truck movements per hour on Beaumont Street, and 1 to 2 truck movements each on Halsey Street and Quay Street/Lower Hobson Street.³⁴

³² America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Figure 7-5, Page 74

³³ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Table 5-1, page 52

³⁴ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 5.2.5 Page 55

6.2.9 It is noted that the predicted maximum truck movements in association with the concrete pours has not taken into account the existing Firth Concrete Plant located at 58 Hamer Street in Wynyard Quarter being used by the contractor. We agree with the conclusions reached by Beca that if the contractor chooses to use the Firth Concrete Plant there will be fewer concrete truck movements to and from the wider road network using the Fanshawe Street intersections to access the Wynyard Precinct.³⁵

Staff Travel Demands

6.2.10 The Beca TA report at Table 5-3 summarises the predicted people trip generation associated with staff travel to and from the construction sites during the busiest 11 month period from month 7 to month 17. Table 5-4 of the Beca TA report summarises the predicted people trip generation associated with van/ute travel to and from the construction sites during the busiest 11-month period from month 7 to month 17. Using the spreadsheets given in Appendix C of the Beca TA report, Flow has calculated the total person movements associated with these staff and van/ute movements to be as follows:

- a. Wynyard Point construction site: 100 to 300 person movements per day
- b. Halsey Wharf construction site: 20 to 130 person movements per day
- c. Hobson Wharf construction site: 35 to 200 person movements per day.

6.2.11 It is recognised that while the Beca TA report has assumed that all these people trips occur in the typical commuter periods, if the construction methodology is such that construction occurs across most of the day and night resulting in staff shift work, it is likely that a large proportion of these people trips will occur outside the typical peak commuter period.

6.2.12 Notwithstanding this, the above staff travel demands do have the potential to generate additional traffic during the peak commuter periods, which could be as high as an additional 260 vehicle trips to and from work during the peak morning and evening periods respectively. Considering the existing peak period operation of the intersections of Fanshawe Street with Beaumont Street and with Halsey Street, this level of additional vehicle traffic demand would result in additional delays and queues at these intersections. Even though no parking is to be provided at the construction sites, it will be crucial that construction staff are required, as much as possible, to use other forms of transport, rather than driving to and from the construction site. In this regard the Applicant has suggested a condition of consent that will result in no staff parking being provided on the construction bases. While this measure may dissuade some private vehicle travel, it may not be sufficient to reduce the effects of extra vehicles on Fanshawe Street and at critical intersections, as staff are likely to try to find parking on-street or use public and private parking facilities in or near to the Wynyard and Viaduct Harbour precincts. Accordingly, we agree with the Applicant that a Construction Staff Travel Plan should be implemented that will include appropriate measures to reduce the amount of staff driving alone as part of their travel to work. This is discussed further in Section 0 below and includes a monitoring and review condition.

³⁵ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 7.1.3 Page 67

6.3 Construction Transport Effects and Mitigation Measures

6.3.1 The development and implementation of a detailed CTMP, in consultation with key stakeholders, is proposed by the Applicant as the measure to manage and minimise the potential impacts of the above described construction and contractor traffic. We agree with this proposition, however we note that the CTMP needs to ensure that the transport network operates efficiently and safely during the construction stage. It also needs to be flexible to adapt to the anticipated changes to transport and land use that may take place in the Wynyard and Viaduct Harbour precincts, and surrounding areas, before and during construction. It should also promote staff travelling in shared vans and shuttles, and by public transport, cycling and walking, as discussed in the following section, in order to reduce the number of staff driving to work at the construction sites.

Key Recommendations

The development and implementation of a CTMP shall be required as a condition of consent. The CTMP shall be developed in consultation with Auckland Transport and the Wynyard Quarter Travel Association. The CTMP shall take into account the construction management plans associated with other construction sites and street works in the vicinity of the Wynyard and Viaduct Harbour precincts. There should be a monitoring, review and revision requirement to ensure that the desired outcomes are being achieved. These outcomes should include that on-street parking is not used by construction staff, and that any changes to on street parking should be focused on the provision of short term visitor parking and goods only parking.

Staff and Van/Ute Vehicle Traffic Operational Effects

6.3.2 We concur with the assessments, conclusions and recommendations contained in Section 7.1.1 of the Beca TA report with regard to measures to reduce the amount of staff and van/ute traffic travelling to and from the Wynyard Hobson sites including:

- a. There will be no provision for construction staff parking on the Wynyard Hobson construction sites
- b. The development and implementation of a Staff Travel Plan in conjunction with the Wynyard Quarter Travel Management Association and Auckland Transport which should include, but not be limited to the following:
 - ◆ Provision of shuttles and or van pooling from contractor depots outside the Wynyard Precinct or City Centre
 - ◆ Providing staff with information on public transport to and from the construction sites, and which could include the contractor providing staff with subsidised AT Hop cards
 - ◆ Providing staff with information on parking locations and rates for those ride-sharing
 - ◆ Provision for secure cycle parking and storage facilities (for personal belongings) at the construction sites.

- ◆ Informing staff that they should not park on the streets in Wynyard Quarter.

6.3.3 In addition, we consider that the present parking constraints, parking cost and the existing demand for on-street parking within the Wynyard Precinct is likely to further discourage contractor-staff travel by private car, although through shift hours, they may be displacing existing on-street parking opportunities from local businesses. The excellent public transport accessibility afforded to the Wynyard Hobson sites from the rail, bus and ferry services at the Britomart Interchange together with the bus services on Fanshaw Street and within the Wynyard Precinct provides staff with viable alternatives to the private vehicle.

Summary / Key Recommendations

It is concluded that the effects of staff and van/ute traffic generated by the construction of the Wynyard Hobson sites will be less than minor subject to no staff parking being provided on the Wynyard Hobson sites, and the development, implementation, monitoring and review/amend of a Construction Staff Travel Plan.

These matters shall be included in the CTMP condition of consent and shall include a monitoring and review/revision condition that identifies numbers of staff on site, what measures have been put in place to facilitate and encourage them using modes of transport other than their car, what the outcomes are in relation to travel modes, and what changes are needed.

Heavy Vehicle Traffic Operational and Safety Effects³⁶

6.3.4 The effects of the above levels of heavy vehicle traffic demands predicted to be generated by the various construction stages on the operation and safety of the roads in the Wynyard and Viaduct Harbour precincts are discussed and assessed in the Beca TA report at Sections 7.3.2, 7.4.3.1 and 7.5.2. This assessment includes discussion regarding the traffic operation of Brigham Street, Hamer Street, Beaumont Street (including the Beaumont Street/ Fanshaw Street intersection), Daldy Street, Halsey Street (including the Halsey Street/ Fanshaw Street intersection) and Quay Street/Lower Hobson Street intersection.

6.3.5 We generally agree with the outcome of this assessment in relation to vehicles and concur that the additional traffic demands can be accommodated by the road network subject to certain mitigation measures and provided that there is no construction staff parking at the construction sites/bases. However, we consider that the effects on people cycling need to be considered further, and as such, appropriate measures for people cycling will need to be provided within the Wynyard Quarter and Eastern Viaduct, due to the increase in heavy vehicle traffic and the expected increase in the numbers of people cycling and pedestrians, from AC36 construction staff, as well as for example, ASB staff whose temporary parking on Hamer Street is to be removed.

³⁶ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 7.3.2, page 75; Section 7.4.3 page 85 and 7.5.2 page

Summary / Key Recommendations

It is concluded that the effects of the additional heavy vehicle construction traffic predicted to be generated by the construction of the Wynyard Hobson sites on the operation and safety of traffic on the roads in, and surrounding the Wynyard and Viaduct Harbour precincts will be less than minor subject to the following being included in the CTMP condition of consent:

- (i) The prohibiting of heavy vehicle movements to and from the construction sites and layover areas in the Wynyard Precinct and Hobson Wharf on weekdays, except public holidays, between 7 and 9 am and between 4 and 6 pm
- (ii) All significant concrete pours shall occur between midnight and 6 am
- (iii) Use of Daldy Street by heavy vehicles shall be limited to large construction / over dimensional vehicles accessing Bases C to G between 9 pm and 6 am
- (iv) Appropriate facilities for pedestrians and people cycling shall be provided within the Wynyard Quarter and Eastern Viaduct during the Construction Phase
- (v) Stopping and layover of heavy vehicles shall only occur in the truck layover areas on the north-eastern side of Brigham Street and on the Eastern Viaduct as identified in Figure 7-4 of the Beca TA report and shall not impede the travel of passing vehicles.
- (vi) All heavy vehicle movements shall be physically separated from cyclist and pedestrian movements through the Eastern Viaduct.

Pedestrian and Cyclist Safety Effects³⁷

6.3.6 We consider that the development of appropriate mitigation measures to ensure the safety of pedestrians and people cycling in the Wynyard Precinct, Eastern Viaduct and Hobson Wharf must form a fundamental part of the CTMP. In particular the following areas, which carry high pedestrian and cyclist demands, must be given special attention during the Construction Phase:

- a. Hamer Street, where it crosses Silo Park
- b. The access to the VEC and Wynyard Crossing/North Wharf area³⁸
- c. The Eastern Viaduct area
- d. The western side of Hobson Wharf³⁹. It is unclear from the Beca TA report if it is the intention that general public pedestrian and cycle access will remain on the western side of Hobson Wharf during the Construction Phase. We are of the view that there is insufficient space for this to safely occur unless additional measures are implemented, as discussed in Section 6.3.13 below.

³⁷ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 7.3.5, Page 81; Section 7.4.4, Page 86; Section 7.5.3, Page 91

³⁸ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Figure 7-9, Page 83

³⁹ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Figure 7-12, Page 89

Summary / Key Recommendations

It is concluded that the effects of the construction traffic generated by the construction of the Wynyard Hobson sites on the operation and safety of pedestrians and people cycling will be less than minor subject to the following matters being addressed as part of the CTMP:

- (i) Implement measures to raise drivers' awareness of pedestrians and people cycling travelling east-west on the North Wharf and Wynyard Crossing shared facility where it crosses Hamer Street, the driveway to the VEC and Halsey Wharf, and Brigham Street (until it is stopped).
- (ii) Implement specific measures for construction vehicles to provide safe movement through high pedestrian/cycle demand areas, and in the vicinity of all construction sites' accesses.
- (iii) Provide safe pedestrian and cyclist access/egress for construction staff to all construction sites and to the ASB building.
- (iv) No public pedestrian and cyclist access shall be permitted on the Hobson Wharf during the Construction Phase unless mitigation measures are implemented as part of the CTMP to provide suitable environment and facilities to allow heavy vehicles to mix with pedestrians and cyclists.

Public Transport Effects

- 6.3.7 Sections 7.3.6, 7.4.5 and 7.5.4 of the Beca TA report address the anticipated effects to public transport resulting from the construction of the AC Wynyard Hobson infrastructure. Considering the relatively low level of heavy vehicle traffic generation together with the restriction of heavy vehicle movements between 7 and 9 am and 4 and 6 pm, it is concluded that there will be little if no noticeable effect to public transport services as long as heavy construction vehicles do not stop and wait on any of the roads other than in the two truck layover areas on Brigham Street and on the Eastern Viaduct as described above.
- 6.3.8 Construction staff being discouraged from driving and the loss of ASB temporary parking will increase the use of public transport to and from the Wynyard and Viaduct Harbour precincts, as well as pedestrian activity, given that public transport use also requires walking to and from destinations. The effect of increased public transport use is considered to be positive, depending on the capacity of services.

Property Access Effects

Wynyard Point Properties

- 6.3.9 The effects to the properties on Wynyard Point are discussed in Section 7.3.3. of the Beca TA report with special regard to the timing of the closure of the southern section of Brigham Street. In particular if Bulk Storage Terminals ("**BST**"), SeaLink and Auckland Seaplanes remain in their current locations for an interim period, there will be a need to provide alternative access to these sites. No further assessment of effects on other property access during the Construction Phase is provided in the Beca TA report.

6.3.10 In this regard, many of the submitters have raised concern of adverse effects to property access during the Construction Phase. In particular Firth Industries, who operate from 58-108 Hamer Street and is therefore located in close proximity to the proposed Wynyard Point bases have raised concerns with regard to the operation of their Hamer Street access. In addition, Hirepool Limited, Lance Wiggs, Precinct Properties New Zealand Limited, Viaducts Harbour Holdings Limited, The Point Body Corporate, Fu Wah New Zealand, Wynyard Quarter Transport Management Association, Empire Capital Limited, Sanford Limited and Auckland Fishing Port Limited, Lighter Quay Body Corporates, Kiwi Property Group Limited, KPMG Property New Zealand Limited, Kensington Swan, Auckland Theatre Company Limited, Team New Zealand; America's Cup Event Limited, Royal New Zealand Yacht Squadron, ASB Bank Limited, Willis Bond and Company Limited, and Challenger of Record America's Cup 36 have either raised property access concerns and/or sought relief by being included as an affected person to be consulted in the proposed conditions of consent and development of management plans.

Key Recommendation

The CTMP shall identify access provisions to all operational land uses on Wynyard Point during construction, which may include temporary pedestrian, cyclist and vehicle access for BST, SeaLink and Auckland Seaplanes. Submitters need to be consulted on the development of the CTMP as it relates to property access effects during construction.

Heavy vehicle movement associated with concrete pours needs to be managed to ensure no queuing or parked vehicles occur on Hamer Street that may affect access to other properties.

Halsey Wharf

6.3.11 Even with the uncertainty around whether or not the commercial fishing activity will remain on Halsey Wharf during the Construction and Operational phases, with regard to managing the transport effects on the marine and fishing industry if they were to remain, the Applicant proposes that the transport related principles included in the VEC Marine and Fishing Management Plan (which was implemented as a condition of consent of the development of the VEC), should be included in the America's Cup Wynyard Hobson CMTP. These principles are listed at Section 7.4.1.2. of the Beca TA report and summarised in **Figure 9** below. We consider that this methodology is appropriate, subject to further consultation with the VEC and the fishing and marine industry. With regard to the latter however, we note that the submission by Sanford Limited and Auckland Fishing Port Limited ("Sanford submission") seeks that the *"consent holder shall provide... suitable and alternative berthage for Sanford Limited and Auckland Fishing Port Limited, from no later than the commencement of construction"*⁴⁰

⁴⁰ Submission on resource consent application by Sanford Limited and Auckland Fishing Port Limited dated 28 May 2018, Appendix A, Pre-Construction Conditions (A), page 10

Figure 9: Proposed Access and Traffic Management Plan for the Fishing Industry on Halsey Wharf during the Construction Phase⁴¹



Key Recommendations

The CTMP shall include the development of a Site-Specific Traffic Management Plan for the Marine and Fishing Industry addressing access, parking, traffic, cycling and pedestrian management for Halsey Wharf during construction. This shall include specific consultation with the Regional Facilities Auckland (Viaduct Events Centre) and the fishing and marine industry and shall be based on the VEC Marine and Fishing Industry Plan, which was prepared as a condition of consent for the VEC.

Hobson Wharf

6.3.12 With regard to managing the transport effects on the NZ Maritime Museum located on Hobson Wharf during AC36 construction activities, it is proposed that the transport related principles listed in Section 7.5.1 of the Beca TA report and summarised in **Figure 10** below, be included in the America's Cup Wynyard Hobson CMTP.

6.3.13 This methodology is accepted, subject to the Applicant consulting with the NZ Maritime Museum and other affected stakeholders, and provided that during the Construction Phase there is no public pedestrian or cyclist access onto Hobson Wharf due to the width of the wharf (8.5m, with pinch points of 5.2m), which is not considered suitable as a shared environment between heavy vehicles, cyclists and pedestrians. If the intention is that public pedestrian and cyclist access onto Hobson Wharf remains during the Construction Phase, then appropriate measures are required

⁴¹ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Figure 7-9, Page 83

to be installed on Hobson Wharf to protect pedestrians and people cycling from the additional heavy vehicle movements associated with construction.

Figure 10: Proposed Access and Traffic Management Arrangements for Hobson Wharf during Construction⁴²



Key Recommendations

The CTMP shall include the development of a Site-Specific Traffic Management Plan for addressing access, traffic, parking, pedestrian and cyclist management for Hobson Wharf during construction. This shall include specific co-ordination with the New Zealand Maritime Museum and other stakeholders regarding access and traffic management arrangements for Hobson Wharf. Specific measures include the safe separation of people cycling and pedestrians from construction vehicles through the high pedestrian/cyclist areas of the Eastern Viaduct.

Further, if it is the intention that general public pedestrian and cycle access will remain on the western side of Hobson Wharf during the Construction Phase, it is considered that mitigation needs to provide suitable facilities providing for their safety.

⁴² America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018; Figure 7-12, Page 89

On-street Parking Effects

6.3.14 During construction the following existing on-street parking provision (approximately) will be removed⁴³:

- a. 34 unrestricted parking spaces on the western side of Brigham Street (50% of the existing provision); and
- b. 9 (Seven P120 Goods Vehicles Only parking spaces and two unrestricted parking spaces) on Hamer Street (16% of the existing provision).

6.3.15 Assuming that the 36 unrestricted parking spaces on Brigham and Hamer Streets are used generally by workers in the Wynyard Precinct who travel to and from the area during peak times, the removal of these parking spaces can be regarded as resulting in a positive transport effect, as it is consistent with the Auckland Unitary Plan, Operative in Part (AUP-OIP) transport policy 34 of the Wynyard Precinct which is to “*constrain and manage private vehicle travel in and out of the Wynyard Precinct, particularly during peak travel periods.*” However, these people may not have viable alternatives to driving and parking here, albeit that further measures could be implemented to help educate and encourage travel by non-car modes to help mitigate the effects on these people. These might include helping provide additional exposure of the WQTMA⁴⁴, which provides help on its website in this regard. This removal of private vehicle demand in and out of Wynyard Precinct during peak times can also be seen as helping to reduce the likelihood of construction staff driving and parking in Wynyard Quarter.

6.3.16 The remaining proposed available parking provision on Hamer and Brigham streets is shown in **Figure 11** and appears to contain an appropriate balance of short term visitor parking and goods vehicles only parking to serve the needs of the adjacent properties, although clarification is sought with regard to the proposed 21 P180 parking spaces on the northern section of Brigham Street and the overlap with the proposed truck layover area shown on Figure 7-4 of the Beca TA report. It is therefore recommended that the Applicant in conjunction with Auckland Transport, prepare a Parking Management Plan, which should be implemented during the Construction Phase as part of the CTMP.

Key Recommendation

The Applicant in conjunction with Auckland Transport, shall prepare Parking Management Plan as part of the CTMP. The geographical extent of this plan shall be developed so that on-street parking effects resulting from the Construction Phase can be managed with appropriate monitoring, review and revision to ensure the desired outcomes are achieved. These outcomes should include that on-street parking is not used by construction staff, and that any changes to on street parking should be focused on the provision of short term visitor parking and goods only parking.

⁴³ America’s Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 7.3.4 Page 78

⁴⁴ <https://www.wqtma.co.nz/>

6.4 Summary of Construction Phase

- 6.4.1 Overall, we agree with the conclusion reached at Section 7.9 of the Beca TA report that the transport effects of the construction of the AC Wynyard Hobson base infrastructure can be appropriately managed and mitigated through the development and implementation of a CTMP.
- 6.4.3 During the Construction Phase, the effectiveness of the Construction Staff Travel Plan will be critical in mitigating the effects of traffic and on-street parking generated by construction staff. While we agree that these effects will be acceptable, this conclusion is based on the assumption of a successfully implemented Construction Staff Travel Plan. Accordingly, there is a risk that if this plan is not effective, the traffic and parking effects during the Construction Phase will be more than minor. We therefore recommend that a monitoring and review/amend condition be included that will allow Council, in conjunction with Auckland Transport, to early on, and on an ongoing basis if required, monitor the effectiveness of the Construction Staff Travel Plan.
- 6.4.2 In this regard, we have had regard to the Applicant's Proposed Conditions of Consents and in particular to the conditions under the headings of "Construction Traffic Management Plan" and "Construction Staff Travel Plan". In view of the number of traffic and transportation-related amendments to the Proposed Conditions of Consents, and in the interests of efficiency, we, together with Auckland Transport, have had direct input into the proposed conditions annexure to Council's planning report.

7 TRAFFIC AND TRANSPORT EFFECTS DURING THE OPERATIONAL PHASE

7.1 The AC Wynyard Hobson Operational Phase

- 7.1.1 The Operational Phase includes any time period once construction is completed when the teams are occupying the bases and the development is not in the Event Phase. For the AC36 this will occur after the completion of the construction of AC Wynyard Hobson Infrastructure described above and will commence upon completion of each base, which is likely to be achieved progressively.⁴⁵
- 7.1.2 The Operational Phase will involve the use of the syndicate bases by staff, associated servicing and deliveries, and with visitors and guests to the bases. In addition, there may also be occupancy of some super yacht berths in Wynyard Wharf South water space (accessed via Halsey Wharf) and Hobson Wharf.⁴⁶
- 7.1.3 Post AC36, this phase would occur between each Event Phase over a 10-year period, when teams are occupying the bases. We have assumed, as outlined at Section 4.4.2 of the Beca TA report, that between and after the Events Phases, if teams are not occupying the bases, that the bases will be used for permitted Port and Marine activities or consented activities at the VEC. The transport generation and effects of these permitted and consented activities have not been identified or quantified in the Beca TA report, and therefore it is not clear if these activities may generate effects more or less than those considered for the Operational Phase of the bases. Any non-permitted activities will be subject to separate resource consents, which will require an assessment of the transport effects of the proposed activity.

7.2 The Wynyard Point Bases

- 7.2.1 Previous **Figure 4** shows the site plan of the Wynyard Point bases. During the Operational Phase it will be important that traffic access/egress (and in particular heavy vehicles) to and from the Wynyard Point bases is appropriately managed so that cycling and walking as a travel mode is encouraged and to ensure the safety of pedestrians, people cycling and vehicles.
- 7.2.2 While the Beca TA report at Section 8.4 recommends that a Wynyard Point Servicing, Delivery and Guest Transport Plan be delivered and this is suggested as proposed condition of consent 179 a), we consider that additional measures need to be included in this plan to address pedestrian and cyclist safety during the Operational Phase from the wider area to and from the bases. In particular, as outlined in Section 0, further consideration should be given to provide a safe and appropriate route for people cycling from Daldy Street/Jellicoe Street to Silo Park/North Wharf and onward to the Wynyard Point bases, including for cyclists accessing the bases along

⁴⁵ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Executive Summary, Page v

⁴⁶ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 4.4.1, Page 40

the Access Lane. The design of the Access Lane needs to consider the different use of the lane during each of the phases, and with the Event Phase expecting a significant mix of pedestrians, spectators, cyclists, people being dropped off and picked up, taxis, shuttles, etc, it is considered that people cycling have not been adequately provided for and that the design of the Access Lane will need careful consideration in accommodating people cycling as they, as well as pedestrians and vehicle drivers, may be unsure on the direction of travel that cyclists are allowed to cycle. How cyclists are accommodated during the Event Phase is expected to be different to the Operational Phase.

Key Recommendations

The Wynyard Point Servicing, Delivery and Guest Transport Plan shall be developed and implemented in conjunction with the Wynyard Quarter Transport Management Association (“WQTMA”), Auckland Transport and relevant stakeholders. The purpose of this plan shall be to address the safety, management, timing and location of servicing, of deliveries and guests transport to the bases during the Operational and Event Phases.

Appropriate measures to ensure the safety of pedestrians and people cycling on the internal Access Lane of the Wynyard Point bases, pedestrians on the Hamer Street eastern footpath, and for pedestrians and cyclists travelling to and from the Wynyard Point bases shall be identified, implemented and included in the above Wynyard Point Servicing, Delivery and Guest Transport Plan. This shall include, as outlined in paragraphs 5.1.3, 5.1.4, 5.1.5, 5.1.6 and 5.1.15 and the “Key Recommendations” that follow.

7.3 The Halsey Wharf Base

7.3.1 **Figure 12** summarises the arrangements for the Halsey Wharf base during the Operational Phase.

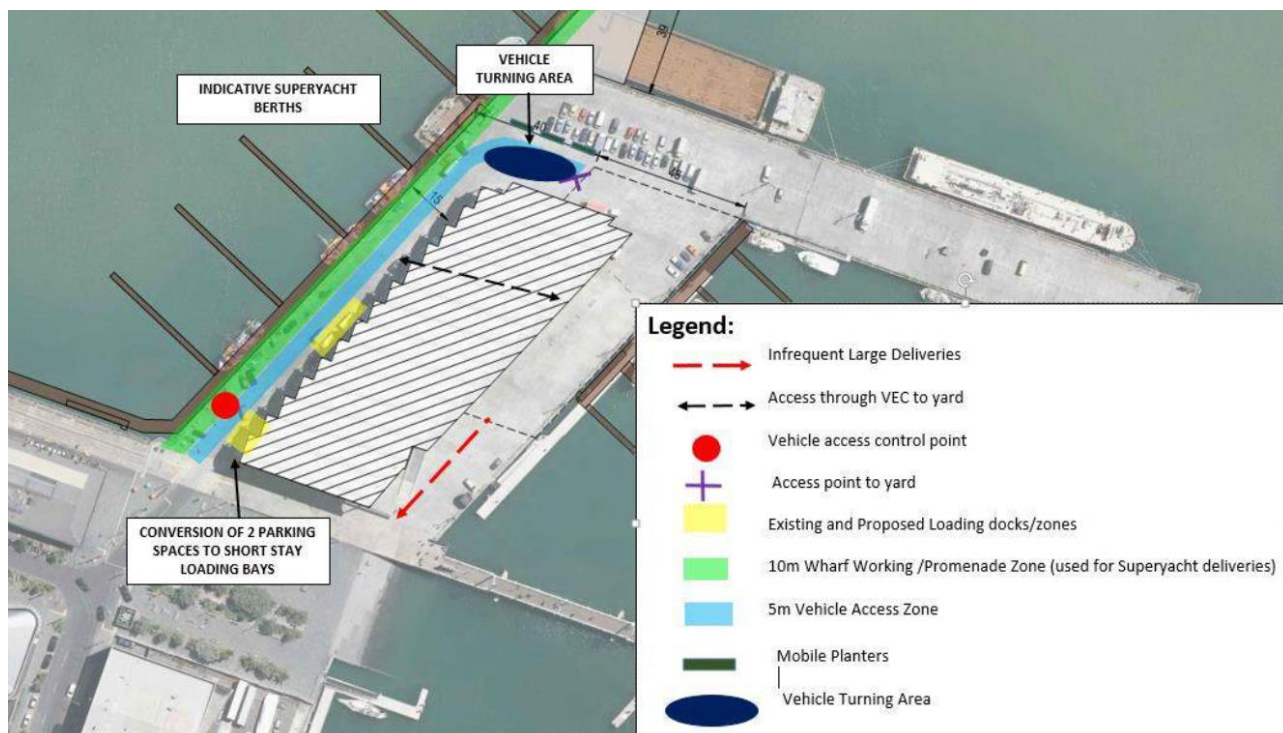
7.3.2 As the marine and fishing industry will likely still be operating when ETNZ are occupying the base, the Applicant proposes to update the June 2011 VEC Traffic Management Plan, which was prepared as a condition of consent of the VEC resource consent and sets out the overall traffic management requirements of the operation of the VEC. This VEC Syndicate Base Traffic Management Plan will be developed to manage transport to and from the area during the Operational Phase and we generally agree with the list of matters that should be included in this TMP⁴⁷, and note that a “*key design objective will be to provide for the safety of all users with particular regard to pedestrians and cyclists.*”⁴⁸ In this regard we consider it necessary to provide appropriate and safe facilities for people cycling, noting that the numbers of people cycling is likely to increase over the 10 year consent period and that the closure of the ASB temporary car park (necessitated by AC36), will also increase people cycling and pedestrians (including those also using public transport or making use of parking opportunities elsewhere). Consideration should also be given to addressing taxi parking associated with guests travelling to and from the ETNZ base during the Operational Phase.

⁴⁷ America’s Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018; Section 8.4 b, Page 97

⁴⁸ America’s Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018; Section 8.4 b, Page 97

7.3.3 Further, with regard to pedestrian and cyclist facilities, we note that if the marine and fishing industry is moved before the Operational Phase, then the 10 m “working wharf” shown in green in **Figure 12** could be separated into pedestrian and cycle zones as well as a zone to provide for the servicing of the super yachts.

Figure 12: Proposed Access and Traffic Management Arrangements for Halsey Wharf during the Operational Phase⁴⁹



Key Recommendations

The VEC Syndicate Base Traffic Management Plan shall include measures to ensure safe and efficient pedestrian and cycle access to and from Halsey Wharf and on the wharf during the Operational Phase. This shall include consideration of the provision of facilities for pedestrians and people cycling within the Wynyard Precinct and to and from the Halsey Wharf base.

In addition, a Servicing, Delivery and Guest Transport Plan for the Halsey Wharf base shall be developed and implemented in conjunction with the WQTMA, Auckland Transport, VEC and relevant stakeholders. The purpose of this plan shall be to address the safety, management, timing and location of servicing, of deliveries and guests transport to the bases and superyacht berths during the Operational and Event Phases. In particular, measures must be implemented that will encourage walking and cycling and will ensure pedestrian and cyclist safety.

7.3.4 The Beca TA report suggests that the marine and fishing industry will likely still be operating from the Western Viaduct Wharf during the Operational Phase (although we note the Sanford

⁴⁹ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018; Figure 8-1, Page 98

submission⁵⁰ that the marine and fishing fleet be moved prior to the commencement of construction). If the former occurs, we agree with the Beca TA report recommendation at Section 8.4.b (and proposed draft conditions 192 and 193) that a specific VEC Syndicate Base Marine and Fishing Industry Management Plan should be included as a consent condition, which should address the matter of efficient and safe vehicle and pedestrian access to and from Halsey Wharf for the marine and fishing industry. Cyclists should be added to this condition.

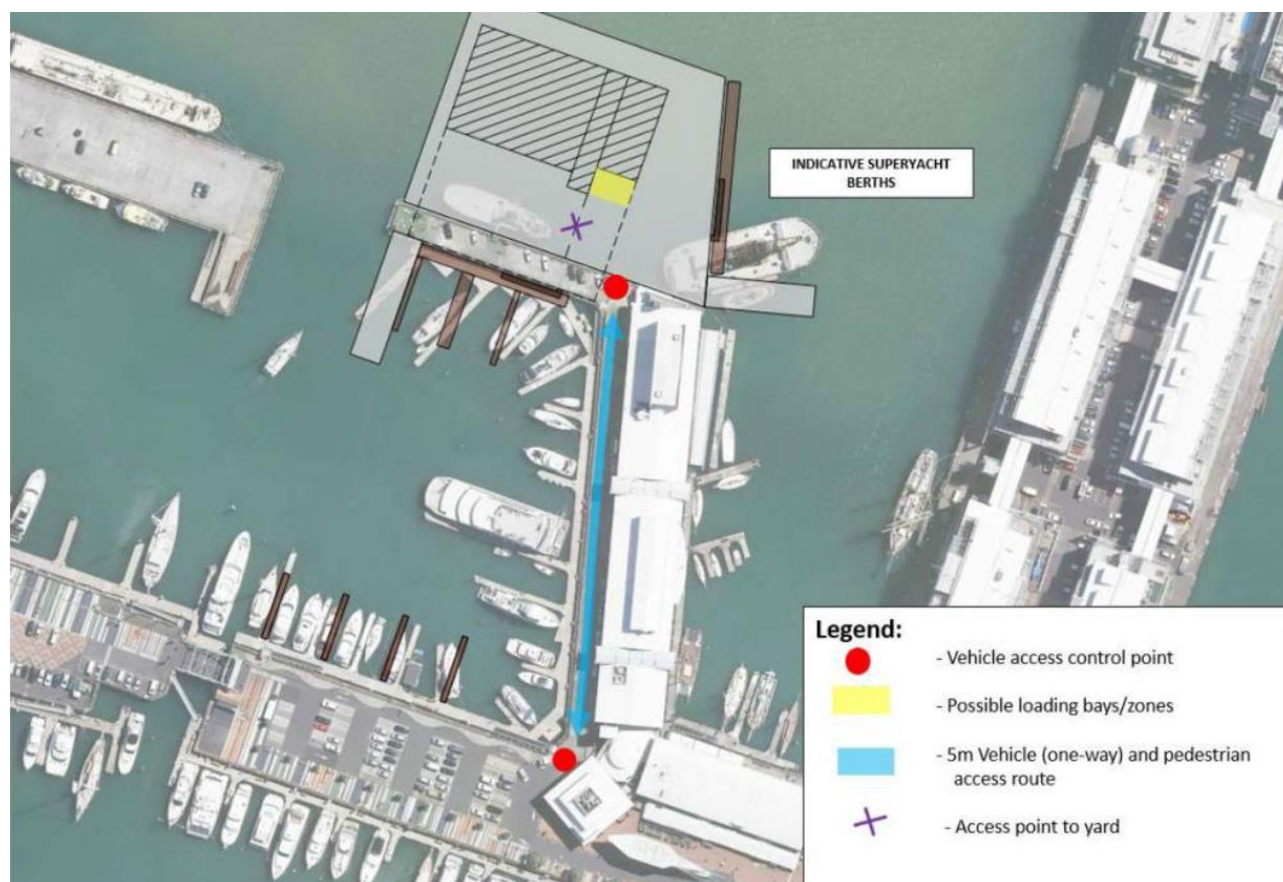
Key Recommendation

The VEC Syndicate Base Marine and Fishing Industry Management Plan shall include measures to ensure safe and efficient pedestrian, cyclist and vehicle access to and from Halsey Wharf for the marine and fishing industry during the Operational Phase.

7.4 The Hobson Wharf Base

7.4.1 **Figure 13** summarises the arrangements for the Hobson Wharf base during the Operational Phase. We understand (from a meeting with the Applicant on 6 June 2018) that no parking or drop off/pick up will be provided on the wharf. Drop off and pick up will be from existing facilities outside the Maritime Museum.

Figure 13: Proposed Access and Traffic Management Arrangements for Hobson Wharf during the Operational Phase



⁵⁰ The Resource Management Act 1991, Submission on Resource Consent Application, Sanford Limited and Auckland Fishing Port Limited, 28 May 2018

- 7.4.2 We generally agree with the details given in the Hobson Wharf Servicing, Delivery and Guest Transport Plan which will be in place during the Operational Phase, although we suggest that as part of this plan information with regard to facilities for taxis delivering guests to the base should be included.
- 7.4.3 As there will be no parking or drop off/pick up spaces on the Hobson Wharf base for staff and visitors, the amount of traffic that Beca expects to use the access way on the western side of the wharf (shown in blue in **Figure 13**) will be between 30 and 38 movements per day. However, as all this traffic will be associated with deliveries to and from, and servicing of the base (and possibly the superyachts) and therefore could include larger vehicles, we are concerned that the width of the route at around 8.5 m (and constrained to 5.2 m along part of the route)⁵¹ is not wide enough to safely accommodate pedestrians and people cycling within a shared arrangement.⁵² In this regard we note that there is proposed to be a new public space located directly to the east of Hobson Wharf base⁵³ and that up to 1,000 people will be able to access the area⁵⁴ during the Operational and Event phases. As such we consider that this matter should be further assessed and that appropriate mitigation measures be implemented to ensure safe pedestrian and cyclist movement to and from the public area on Hobson Wharf. We have liaised with Council's urban design peer reviewer, Rebecca Skidmore, on this matter and can confirm she has raised similar concerns in her peer review report regarding public accessibility between the Eastern Viaduct and Hobson Wharf public space.
- 7.4.4 To mitigate this effect during the Operational Phase, the Applicant has proposed in the UNIO 8 June 2018 letter to include measures in the Hobson Wharf Servicing, Delivery and Guest Transport Plan to enable safe access on Hobson Wharf. These measures include:
- a. The overall design of the access route will encourage a low speed environment for vehicles of no more than 10 km/hr
 - b. Demarcated areas for turning vehicles
 - c. Managed entry and exit of vehicles at the vehicle access points on the Eastern Viaduct and Hobson Wharf
 - d. No parking or pick up/drop off for guests on Hobson Wharf.
- 7.4.5 We accept that these measures are appropriate and should be included in the Hobson Wharf Servicing, Delivery and Guest Transport Plan. Further we recommend that the design of the Hobson Wharf access way be subject to a Stage 3 (detailed design) and Stage 4 (construction)

⁵¹ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018; Appendix F, Pedestrian Capacity Assessment, Section 2.1.1, Page 5

⁵² America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018; Section 8.4 c, Page 99

⁵³ America's Cup Wynyard Hobson Urban Design Report, McIndoe Urban, 6.7 page 49

⁵⁴ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018; Appendix F, Pedestrian Capacity Assessment, Section 2.1.1, Page 5

road safety audits and that the reporting and decisions be provided to the Team Leader Compliance Monitoring - Central.

Figure 14: Existing western side of Hobson Wharf



Key Recommendations

The Hobson Wharf Servicing, Delivery and Guest Transport Plan shall be developed and implemented in conjunction with the NZ Maritime Museum and Eastern Viaduct, Auckland Transport and relevant stakeholders. The purpose of this plan shall be to address the safety, management, timing and location of servicing, of deliveries and guests' transport to the bases and superyacht berths during the Operational and Event Phases. In particular, the plan shall include additional measures to ensure safe and efficient access for pedestrians and people cycling to and from Hobson Wharf and on the wharf during the Operational and Events phases as all guests will need to at least walk from Eastern Viaduct to the base.

The design of the Hobson Wharf access way be subject to a Stage 3 (detailed design) and Stage 4 (construction) Road Safety Audits and the reporting and decisions be provided to the Team Leader Compliance Monitoring - Central.

7.5 Operational Phase Traffic Generation

7.5.1 In predicting the amount of traffic that is likely to be generated during the Operational Phase, the Beca TA report has assumed that:

- a. Each double base will have around 110 staff and each single base will have around 70 staff, resulting in 430 staff on Wynyard Point bases, 110 staff on Halsey Wharf and 110 staff on Hobson Wharf
- b. There will be no more than 20 staff parking spaces for the five Wynyard Point bases, and no more than 18 parking spaces for staff on Halsey Warf and no staff parking spaces on Hobson Wharf⁵⁵. As such it has been assumed that no more than 25% of the staff will drive to work⁵⁶. We are supportive of this proposition⁵⁶ and consider that it is achievable through the implementation and monitoring of the proposed Syndicate Staff Travel Plans, together with the promotion of public transport accessibility of the area, the existing parking provision constraints in the Wynyard Quarter area, and in light of the fact that the majority of staff will be relocating to Auckland and may choose to live in close proximity to the bases. To ensure that the outcomes are achieved, we recommend that the amount of parking proposed be identified as the maximum that can be provided in the conditions of consent. Further we recommend that a monitoring and review condition be included as part of the Syndicate Staff Travel Plans which will identify the numbers of staff on the site, what measures have been put in place to facilitate and encourage them to use modes of transport other than their car, and what the outcomes are in relation to travel modes
- c. Based on information obtained by Beca from ETNZ, each syndicate will generate up to 30 service/delivery movements per day with 10% occurring during peak times⁵⁷
- d. Each base will generate 10 to 30 guests during events hosted on the bases during the Operational Phase and that these guests will travel to the bases as outlined in Section 5.4.1.3 of the Beca TA report
- e. Even though Beca expects that fewer superyachts will arrive during the Operational Phase in advance of the Events phase, in their report Beca assumes that all 17 berths will be occupied during the Operational Phase. No parking will be provided on the bases for superyacht crew, contractors or visitors and each superyacht is expected to generate four vehicle trips per day associated with deliveries and picking up/dropping off visitors.⁵⁸

⁵⁵ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 8.3, Page 95

⁵⁶ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 5.3.1.1. Page 56

⁵⁷ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Table 5-7. Page 57

⁵⁸ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Table 5-9. Page 59

7.5.2 With regard to the latter point, superyachts often require servicing from tradesmen or deliveries of large pieces of equipment that will require parking and loading close to their berths. We consider that this has been overlooked in the assessment and may not be mitigated by the suggested transport by cart of tools, equipment, etc. Further, no parking or loading is identified in any remote area for this purpose. As such, we consider that there could be adverse effects associated with ad hoc parking adjacent to superyacht berths. This may be able to be mitigated if the commercial fishing fleet has been relocated from Halsey wharf, as space may be able to be assigned for short term loading in the vicinity of the superyacht berths.

7.5.3 Taking into account the above assumptions and assuming that as part of the AC Wynyard Hobson application the 269 space ASB car park located on Wynyard Point will be removed, **Table 2** summarises the predicted changes to the daily and evening peak hour traffic volume demands associated with the Operational Phase of the seven bases. Details of this assessment can be found in **Appendix C** to this report.

Table 2: AC36 Wynyard Hobson Operational Phase: Change in Traffic Movements

Location of bases	Change in Daily Vehicle Movements	Change in Evening Peak Hour Movements	Main Route
Wynyard Point	-50	+26	Beaumont Street and Hamer Street
Halsey Wharf	+184	+54	Halsey Street
Hobson Wharf	+116	+40	Lower Hobson Street and Quay Street

7.5.4 We note that the above assessment does not include the assumption stated in the Beca TA report⁵⁹ concerning the removal from Halsey Wharf of 82 temporary parking spaces associated with the VEC and/or the 32 permanent fishing industry parking spaces, as we are unsure if this is a reasonable assumption given that it has also been assumed that the fishing industry will remain at Halsey Wharf during the Operational Phase. If the 82 temporary parking spaces associated with the VEC are removed during the Operational Phase the additional traffic movements on Halsey Street are predicted be 102 vehicles per day and 31 vehicles during the evening peak hour.

7.5.5 While the above assessment includes the assumption stated in the Beca TA report concerning the removal of the ASB carpark from Wynyard Point, we note that the ASB submission has requested that *“there will be no reduction of the current carparks available to visitors and staff of ASB.”*⁶⁰ The traffic effects of the implementation of any new staff ASB parking will be required to be assessed in its own right, and we note that if this staff parking area is relocated in the Wynyard Quarter or the Westhaven Marina area, then the associated traffic generation through the Fanshaw Street/ Beaumont Street intersection will have to be assessed.

⁵⁹ America’s Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018; Section 8.4 b, Page 98

⁶⁰ Submission of ASB Bank Limited on the Wynyard Hobson proposal, 28 May 2018

7.6 Transport Effects and Mitigation Measures during the Operational Phase

Traffic Effects

- 7.6.1 As shown in **Table 2**, the predicted change in both daily and peak hour traffic volumes associated with the operation of the various sites is low. In particular, during the peak morning and evening peak hours, the predicted increase in traffic demand on the roads accessing the sites during the Operational Phases is below 55 vehicles per hour and taking into account the existing traffic demands, this level of additional traffic is considered to have negligible effects on the operation of general traffic and buses on Fanshaw Street, Beaumont Street, Halsey Street, Lower Hobson Street and Quay Street.
- 7.6.2 This conclusion is however based on travel demand assumptions, and as such it is important that travel plans around each of these objectives are prepared, implemented, monitored, reviewed and revised to achieve the desired outcome of a maximum of 25% of base staff driving to work. In particular, for cyclists accessing the bases, secure storage facilities are necessary. As noted previously, safe and appropriate connections for pedestrians and people cycling should be retained between Daldy Street/Jellicoe Street and North Wharf/Silo Park and onward to the bases, through the provision of appropriate facilities as discussed in paragraphs 5.1.3, 5.1.4, 5.1.5 and 5.1.6.

Key Recommendations

In order to mitigate adverse traffic effects during the Operational Phase and in particular to mitigate adverse traffic effects during peak traffic times, it is recommended that:

- (i) No parking spaces shall be provided at the Hobson Wharf base.
- (ii) No more than 18 staff parking spaces shall be provided at the Halsey Wharf (VEC) base. Should the marine and fishing industry be operating via access from Halsey Wharf during the Operational Phase, then no more than 32 parking spaces shall be provided on Halsey Wharf for the fishing industry and no other parking shall be permitted on Halsey Wharf.
- (iii) No more than 20 staff parking spaces shall be provided on the Wynyard Point bases.
- (iv) Syndicate Staff Travel Plans (“**SSTPs**”) shall be developed, implemented, monitored, reviewed and revised in conjunction with the WQTMA and Auckland Transport. These SSTPs shall be active during the Operational and Event Phases and shall include a monitoring and review/amend condition that identifies numbers of staff on site, what measures have been put in place to facilitate and encourage them using modes of transport other than their car, what the outcomes are in relation to travel modes, and what changes are needed.
- (v) Appropriate facilities for pedestrians and people cycling shall be provided to cater for the increase in the number of people walking and cycling to and from the bases, and to and from the ASB building through the Wynyard and Viaduct Harbour precincts.

Pedestrian and Cyclist Safety Effects

- 7.6.3 As outlined in paragraphs 5.1.15 and 7.6.2 above, we consider that during all the Operational Phases pedestrians and cyclists travelling to and from the bases through the Wynyard and Viaduct Harbour precincts should be provided with appropriate facilities.
- 7.6.4 The increase in pedestrians and people cycling to and from the AC Wynyard Hobson bases and to and from ASB, as a result of their temporary car park possibly being removed, needs to be investigated further, with a view to ensuring that facilities are provided that can safely and efficiently cater for any increased demand.
- 7.6.5 Further, as discussed in paragraphs 7.4.3, 7.4.4 and 7.4.5 above, we are of the view that additional mitigation measures are required to ensure safe and efficient access for pedestrians and people cycling to and from Hobson Wharf and on the wharf during the each of the Operational and Events Phases over the 10-year consent period.

Property Access Effects

- 7.6.6 The effect on property access during the Operational Phase for the marine and fishing industry is proposed to be appropriately managed through the development of the VEC Base Marine and Fishing Industry Management Plan.⁶¹ The Beca TA report at Section 8.7 assumes that the SeaLink Ferry and the Auckland Seaplane facilities have been relocated.
- 7.6.7 Further, we recommend that the Servicing, Delivery and Guest Transport Plans for the Wynyard Point and Hobson Wharf sites should include measures to mitigate effects on other property access, during the Operational Phase. This should include, but not be limited to the properties that have been raised in public submissions as outlined in paragraph 6.3.10.

Key Recommendation

The VEC Base Marine and Fishing Industry Management Plan and the Servicing, Delivery and Guest Transport Plans for the Wynyard Point and Hobson Wharf sites shall include measures to mitigate effects on other property access during the Operational Phase.

Submitters need to be consulted on the development of these plans as it relates to property access effects during the Operational Phases.

⁶¹ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 8.4 b page 96

On-street Parking Effects

- 7.6.8 The on-street parking effects of the Operational Phase are similar to those identified for the Construction Phase, in as much as the removal of unrestricted parking spaces on Hamer Street and on Halsey Wharf can be regarded as resulting in a positive transport effect, as it is consistent with the AUP-OIP transport policy 34 of the Wynyard Precinct which is to “*constrain and manage private vehicle travel in and out of the Wynyard Precinct, particularly during peak travel periods.*”. However, people who presently use those parking spaces may not have viable alternatives to driving and parking here, albeit that further measures could be implemented to help educate and encourage travel by non-car modes to help mitigate the effects on these people. These measures might include helping provide additional exposure of the WQTMA⁶², which provides help on its website in this regard. This removal of private vehicles and out of Wynyard Precinct during peak times can also be seen as helping to reduce the likelihood of base staff driving and parking in Wynyard Quarter.
- 7.6.9 It is recommended that the Applicant in conjunction with Auckland Transport, prepare a Parking Management Plan, which should be implemented during the Operational Phase.

Key Recommendation

The Applicant in conjunction with Auckland Transport, shall prepare Parking Management Plan for the Operational Phase. The geographical extent of this plan shall be developed so that on-street parking effects resulting from the Operational Phase can be managed with appropriate monitoring, review and revision to ensure the desired outcomes are achieved. These outcomes should include that on-street parking is not used by syndicate staff, and that any changes to on street parking should be focused on the provision of short term visitor parking and goods only parking.

7.7 Summary of Operational Phase

- 7.7.1 Provided that our above recommendations are adopted, we generally agree with the conclusions reached at Section 8.12 of the Beca TA report that the transport effects of the Operational Phase of the AC Wynyard Hobson proposition can be appropriately managed and mitigated through the development and implementation, in consultation with various stakeholders, of the following travel demand, transport and traffic management plans:
- a. Syndicate Staff Travel Plans.
 - b. The Wynyard Point Servicing, Delivery and Guest Transport Plan
 - c. The Halsey Wharf Servicing, Delivery and Guest Transport Plan
 - d. The Hobson Wharf Servicing, Delivery and Guest Transport Plan
 - e. VEC Syndicate Base Traffic Management Plan
 - f. VEC Syndicate Base Marine and Fishing Industry Management Plan
 - g. Operational Phase Parking Management Plan.

⁶² <https://www.wqtma.co.nz/>

- 7.7.2 As such, should consent be granted, it is recommended that the development and implementation of these plans, to the satisfaction of the consenting authority, should be conditions of consent.
- 7.7.3 We note that the effectiveness of the Syndicate Staff Travel Plan during the Operational Phase will be critical in mitigating traffic operation and on-street parking effects generated by syndicate staff. We therefore recommend that a monitoring and review/amend condition of consent be included that will allow Council, in conjunction with Auckland Transport, to early on, and on an ongoing basis if required, monitor the effectiveness of the Syndicate Staff Travel Plan.
- 7.7.4 Accordingly, we have had regard to the Applicant's Proposed Conditions of Consent and in particular to the conditions relevant to travel demand, transport and traffic management during the Operational Phase. In view of the number of traffic and transportation-related amendments to the Proposed Conditions of Consents, and in the interests of efficiency, we, together with Auckland Transport, have had direct input into the proposed conditions annexure to Council's planning report.

8 TRAFFIC AND TRANSPORT EFFECTS DURING THE EVENTS PHASE

8.1 The AC Wynyard Hobson Events Phase

- 8.1.1 Section 4.5 of the Beca TA report provides a description of the Events Phase as it relates to transport matters.
- 8.1.2 The overall Events Phase is for a six-month period and will initially be held from December 2020 to May 2021 and will include the challenger series (such as the Prada Cup) and supporting and complementary regattas with the AC36 races held in March 2021. Based on the regatta format of the 35th America's Cup, it is anticipated that the major races (The Challenger finals and Americas Cup Match) will take place on the weekends.⁶³
- 8.1.3 The following key transport matters are noted:
- a. The Events Phase will generate a significant demand for travel by all kinds of transport modes to the Wynyard and Viaduct Harbour precincts, as well as to other vantage points across Auckland
 - b. The bases have the potential to generate staff travel demand as per the Operational Phase, as well as up to 300 guests per base and up to 500 guests at the VEC.

8.2 Events Phase Traffic Generation

- 8.2.1 In predicting the amount of traffic that is likely to be generated during the Events Phase, the Beca TA report has assumed that:⁶⁴
- a. With regard to staff travel to and from the bases, the traffic generation will be at a similar level to that predicted during the Operational Phase. However, we note that there could be extra staff related to hosting, entertainment, public relations and broadcasting that have not been considered
 - b. Based on information obtained by Beca from ETNZ, each syndicate will generate up to 30 service/delivery movements per day with 10% occurring during peak times. Again, though, there are likely to be extra deliveries associated with, for example, guest catering
 - c. Each base will generate up to 300 guests, and up to 500 guests at the VEC during the Events Phase, and these guests will travel to the bases as outlined in Section 5.4.1.3 of the Beca TA report, including 60% to 80% of guests arriving by shared vehicle or by taxi. Considering that there is limited public parking in the Wynyard Precinct, this assumption is reasonable and accepted, with the number of vehicles predicted to be generated as outlined in Table 5.8 in the Beca TA report

⁶³ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Table 4.2, Page 42

⁶⁴ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 5.4, Page 57

- d. During the Events Phase, it is assumed that all 17 superyacht berths will be occupied. No parking will be provided on the bases for crew, contractors or visitors and each superyacht is expected to generate four vehicle trips per day associated with deliveries and picking up/dropping off visitors.⁶⁵ As per the Operational Phase, no specific parking or loading space has been identified for these vehicles. Notwithstanding this we note that during the Events Phase there are likely to be more guests on the super yachts when compared to the Operational Phase and as such there is likely to be more deliveries than during the Operational Phase.

8.2.2 Taking into account the above assumptions including our conclusions regarding additional vehicle movements associated with extra staff and deliveries, and assuming that as part of the AC Wynyard Hobson application, the 269 space ASB car park located on Wynyard Point is going to be removed, and the 32 permanent fishing industry parking spaces and 82 temporary VEC parking spaces on Halsey Wharf will also be removed, **Table 3** summarises the predicted changes to the daily and evening peak hour traffic volume demands associated with the seven bases during the Events Phase, assuming that the bases are hosting events during the early evenings. Details of this assessment can be found in **Appendix C**.

Table 3: AC36 Wynyard Hobson Events Phase: Change in Traffic Demands (vehicle trips)

Location of bases	Change in Daily Vehicle Movements	Change in Evening Peak Hour Movements	Main Route
Wynyard Point	+1,300	+670	Beaumont Street/ Hamer Street
Halsey Wharf	+500	+220	Halsey Street
Hobson Wharf	+340	+160	Lower Hobson Street/ Quay Street

8.3 Transport Effects and Mitigation Measures during the Events Phase

Traffic Effects

- 8.3.1 As shown in **Table 3**, the Events Phase, and particularly on race days when the bases are hosting guests, has the potential to generate a significant increase in traffic especially through the Fanshaw Street/Beaumont Street intersection, which in turn will result in increased traffic delays and effects to bus and other vehicles' travel times to and from Wynyard Precinct and on Fanshaw Street especially during the evening peak period.
- 8.3.2 As such while we agree that these effects are temporary in nature and that as with any large event a degree of disruption is anticipated by the community,⁶⁶ we consider it vital that as part of the Event Transport Plans (which form part of the overall Event Management Plan), that a

⁶⁵ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 5.4.2, Page 59

⁶⁶ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 12.1; Page 116

travel demand strategy is implemented to provide residents and employees in Wynyard Precinct and the wider Auckland public with information and encouragement for using alternative forms of transport rather than driving to and from central Auckland on those days when the bases are anticipating a high number of guests. Increased bus services may be required and appropriate pedestrian and cycle facilities are considered necessary to accommodate the increased numbers of pedestrians and cyclists travelling to and from the bases and spectator areas.

Summary / Key Recommendations

In order to mitigate adverse traffic effects during the Events Phase and in particular to mitigate effects during peak evening periods, similar recommendations as to staff travel to and from the bases as described in paragraph 7.6.2 (and the “Key Recommendations” that follow) are proposed, except that no staff parking should be allowed on the Wynyard Point bases during the Events Phase, as well as the development and implementation of the Event Transport Plan, as part of an Event Management Plan, as outlined in Table 4-3 of the Beca TA report. The development of this plan shall be completed in consultation with relevant stakeholders which shall include (but not be limited to) WQTMA, Auckland Transport, New Zealand Transport Agency, VEC, NZ Maritime Museum, NZ Bus, local businesses, residents’ associations, Westhaven Marina Users Association, cycling groups and marina user groups (we note in passing that not all of these stakeholders are reflected in the Applicant’s proposed condition 36, as presently drafted).⁶⁷

In addition to this, the above recommended Servicing, Delivery and Guest Transport Plans for Wynyard Point, Halsey Wharf and Hobson Wharf shall include further measures to restrict timing of deliveries in order to avoid conflicts with the peak periods of visitors/spectators within the Event area, as well as any hosting activities occurring within the bases.

Pedestrian and Cyclist Safety Effects

- 8.3.3 Our previous discussion and recommendations regarding effects and mitigation measures for pedestrians and people cycling during the Operational Phase remains valid during the Events Phase, and more importantly, will need to accommodate the much larger numbers of pedestrians and cyclists coming to Wynyard and Viaduct Harbour precincts as spectators.
- 8.3.4 We acknowledge that detailed pedestrian modelling of the Events Phase overlay is still to be completed and consider this to be acceptable subject to the development and implementation of the Pedestrian and Cycle Management Plan which will form part of the Events Management Plan, that can achieve the desired outcomes of safe travel for pedestrians and people cycling, and the encouragement of these modes of travel.
- 8.3.5 The Pedestrian Capacity Assessment contained in Appendix F of the Beca TA report concludes that during the Events Phase up to 3,000 people can be accommodated on Halsey Wharf and that 1,000 people can be accommodated on Hobson Wharf. We note that this latter figure may need

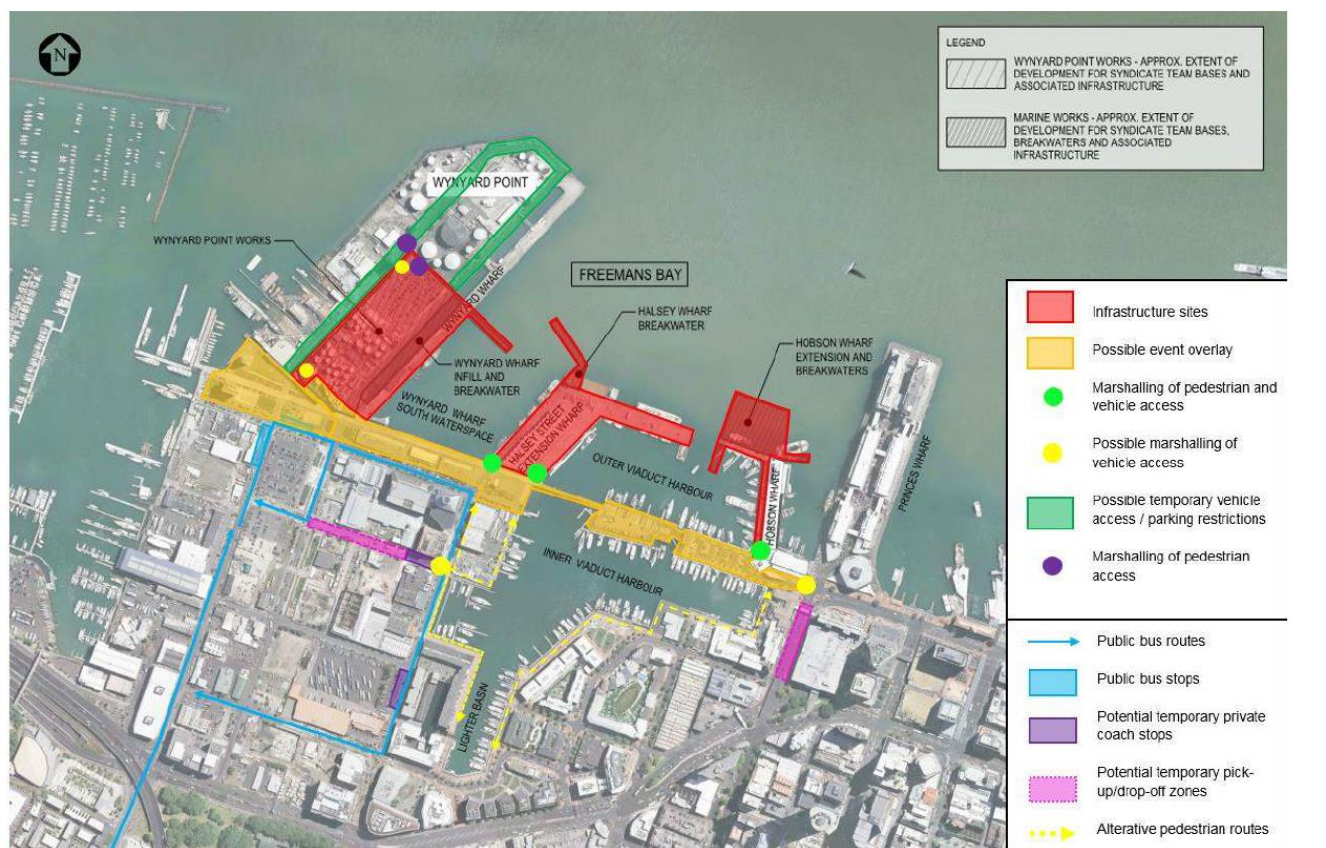
⁶⁷ America’s Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Table 4-3, Page 47

to be reduced if the Viaduct Harbour Holdings Limited's submission⁶⁸ that there is no need for the northern most 10 m of Hobson Wharf extension, is accepted. From a transport point of view the removal of this 10 m extension will reduce the pedestrian capacity of the area.

- 8.3.6 We are of the view that the recommendations contained in Appendix F of the Beca TA report should be used to inform the pedestrian part of the Pedestrian and Cycle Management Plan, but that this plan needs to consider the wider area, including Beaumont Street, Halsey Street, Daldy Street, Fanshawe Street and Quay Street, and also importantly include an assessment of the effects on people cycling.
- 8.3.7 We consider that the biggest risks for pedestrians and people cycling during the Events Phase include crossing of Fanshawe Street, which can be mitigated by directing people to cross at traffic signal controlled intersections, cyclists mixing with vehicular traffic where shared facilities (eg along Beaumont Street and Daldy Street) become too busy, and the potential for conflicts between pedestrians and people cycling on existing shared pedestrian/cycle facilities including Wynyard Crossing bridge, North Wharf, Te Wero Island, Beaumont Street and the Eastern Viaduct during busy times. The mixing of spectators, pedestrians, cyclists and vehicles is also of concern in relation to the Access Lane.
- 8.3.8 With regard to the Access Lane, mitigation suggested by the Applicant (at our meeting on 6 June 2018) included cycle parking being provided somewhere to the south of the Access Lane to encourage spectators and guests to leave their bikes away from the Access Lane and therefore reduce the potential for conflicts with vehicles and pedestrians. Such cycle parking facilities could be provided elsewhere for spectators who have cycled to the Event, which would help to reduce potential conflicts with pedestrians. Subject to suitable locations being found, these could be located at the Eastern Viaduct, Karanga Plaza and Silo Park.
- 8.3.9 As boats have right of way over pedestrians and cyclists using the Wynyard Crossing bridge and because boat movements in and out of the Viaduct are likely to increase during the Events Phase, pedestrians and cyclists will experience significant delays and queuing at the bridge. While the Applicant has suggested that a measure to mitigate this effect could be to encourage pedestrians and people cycling to use the alternative route along the southern edge of the Inner Viaduct Harbour as shown in yellow in **Figure 15**, this is a much longer route and is not as attractive or suitable for all people.

⁶⁸ The Resource Management Act 1991, Submission on resource consent applications (AC Wynyard Hobson Proposal) Viaducts Harbour Holdings Limited, Items (j and k) page 5

Figure 15: Indicative Event Management Approach⁶⁹



8.3.10 We are not convinced that this alternative proposition is viable, as the distance to travel on this southern route is considerably longer for pedestrians, and cyclists would face the busy section of path in front of restaurants around the Eastern Viaduct, when compared to using the Wynyard Crossing bridge.

Summary / Key Recommendations

In conjunction with Auckland Transport, the Applicant shall prepare and implement a Pedestrian and Cycle Management Plan for the Events Phase. In this regard additional assessment is required with regard to the pedestrian and cyclist capacity of the operation of Wynyard Crossing bridge crossing. Appropriate and reasonable mitigation measures shall be pursued.

Public Transport Effects

8.3.11 The additional traffic generation resulting from guests traveling to the syndicate events during the weekday evening peak period (assuming that no events will be held during the morning peak period) during the Events Phase has the potential to impact on buses traveling within the Wynyard Precinct and on Fanshaw Street, resulting in them being delayed and not meeting timetables. Sections 9.4.2, 9.4.3 and 9.4.4 of the Beca TA report outline the proposed Servicing, Delivery and Guest Transport Plans for each base, which include measures to be implemented to

⁶⁹ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Figure 4-7, Page 48

manage the demand for taxis and guests travelling in and out of the Wynyard Precinct during the evening peak periods. Notwithstanding this, it is considered that the Applicant will need to liaise and work closely with Auckland Transport in the preparation of these plans to ensure that bus services within and around Wynyard Quarter continue to operate efficiently.

8.3.12 During the Event Phase and especially on race days, and in conjunction with the Event Transport Plan, there will be a significant increase in the use of train, ferry and bus services to and from the bases. The Beca TA report has stated that any increase in public transport demand associated with racing days will be addressed in consultation with Auckland Transport by the Event Management Plan.⁷⁰ We agree with this strategy and suggest that a specific public transport management plan should be developed as part of the Event Transport Plan which will include the delivery of additional services as required. Early anticipation of increased demands for public transport services should be addressed with Auckland Transport and monitoring and review will be key to ensure that responses can be made if increased public transport services are required.

Key Recommendation

In conjunction with Auckland Transport, the Applicant shall include in the Event Transport Plan, a Public Transport Management Plan for implementation in association with the Events Phase.

Property Access Effects

8.3.13 In assessing the effects on property access during the Events Phase, we have assumed that the Ferry and Fishing Industries, including Sanford, SeaLink and Auckland Seaplanes have been relocated from their current locations. With regard to effects on access provision to other properties during the Event Phase, the Beca TA report does not contain any specific information or assessment and proposes to mitigate any effects through the implementation of the Traffic and Parking and the Pedestrian and Cycle Management Plans.

8.3.14 We consider that during the Events Phases and in particular on race days, there is the potential that access to businesses on Hamer Street and Brigham Street, and possibly wider in the Wynyard and Viaduct Harbour precincts may be affected. This concern has been raised in numerous submissions by businesses in the Wynyard Precinct including Firth Concrete which is located on Hamer Street. As little detail around the proposed Traffic and Parking, and Pedestrians and Cycle Management Plans is available at this time, we consider it reasonable that these businesses be included as relevant stakeholders (as outlined in draft condition of consent 36) with regard to the development and implementation of the Traffic and Parking, and Pedestrian and Cycle Management Plans which should form part of the Event Management Plan.

⁷⁰ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 9.8, Page 110

Key Recommendations

The effects to property access during the Events Phase shall be appropriately managed through the development of the various Traffic and Parking, and Pedestrian and Cycle Management Plans. These plans shall be developed and implemented in consultation with Auckland Transport, the WQTMA and relevant stakeholders.

On-Street Parking Effects

8.3.15 It is proposed that on racing days during the Events Phase (around 30 days) all on-street parking for private vehicles, excluding Goods Only Vehicles parking spaces, be temporarily removed on Hamer and Brigham Streets⁷¹. Based on the number of parking spaces shown in the Beca TA report Figure 8-3, this proposition results in nine P120 Goods Only Vehicle parking located in the south of Hamer Street on the eastern side and 21 P120 Goods Only Vehicle parking located in the middle of Hamer Street on the eastern side being retained. These spaces should be made available for use on weekends as well as weekdays. Overall, we consider that a Parking Management plan should form part of the Events Management Plan and should be developed in conjunction with Auckland Transport and other relevant stakeholders.

Key Recommendation

An Event Phase Parking Management Plan shall be prepared, as part of the proposed Event Management Plan to manage parking effects in the Wynyard Precinct during the Events Phase.

8.4 Summary of Events Phase

8.4.1 Provided that our above recommendations are adopted, we generally agree with the conclusions reached at Section of the Beca TA report that the transport effects of the Events Phase of the AC Wynyard Hobson proposition can be appropriately managed and mitigated through the development and implementation, in consultation with various stakeholders, of the following travel demand, transport and traffic management plans:

- a. Event Transport Management Plan
- b. Syndicate Staff Travel Plans
- c. Pedestrian and Cycle Management Plan
- d. Public Transport Management Plan
- e. Traffic and Parking Management Plan for the Wynyard and Viaduct Harbour precincts
- f. The Wynyard Point Servicing, Delivery and Guest Transport Plan
- g. The Halsey Wharf Servicing, Delivery and Guest Transport Plan
- h. The Hobson Wharf Servicing, Delivery and Guest Transport Plan.

⁷¹ America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, Beca, April 2018, Section 9.5, Page 109

- 8.4.2 As such, should consent be granted, it is recommended that the development and implementation of these plans, to the satisfaction of the consenting authority, should be conditions of consent.
- 8.4.3 Accordingly, we have had regard to Proposed Conditions of Consents and in particular to the conditions concerning travel demand, pedestrian, cycle, public transport, parking and traffic management during the Events Phases. We, together with Auckland Transport, have had direct input into the proposed conditions annexure to Council's planning report.

9 SUBMISSIONS

- 9.1 A total of 83 submissions have been made on the notified America's Cup Wynyard/Hobson proposal. Just under half of these submissions (40 of the 83 submissions) have raised issues in relation to transport adverse effects and concerns in relation to the proposal. It is noted that 24 of the 40 submissions who have raised concerns in relation to transport matters, either support the proposal in full or provide conditional support on the proposal subject to the issues raised being addressed adequately. This leaves 16 transport related submissions remaining in opposition to the proposal and one submission with a neutral position.
- 9.2 The submitters who have raised concerns in relation to transport effects can be categorised into the following groups:
- Residents body corporates representing residents within the areas
 - Businesses located within the areas
 - Business associations representing land owners and businesses within the areas
 - Community groups and individuals.
- 9.3 Generally, submitters have raised the following transport and traffic effects/ matters in relation to the proposal during the Construction, Operational and Events Phases:

Pedestrians and Cyclists

- The impacts on pedestrian and cycle access to and from public spaces e.g. Hobson Wharf and Princes Wharf
- The conflicts between pedestrians, cyclists and vehicles accessing the many activities between Downtown, Viaduct and Wynyard areas
- Provision for pedestrians and cyclists' safety in the areas during the Construction and Events Phases
- Ensure pedestrians and cyclists linkages between the Downtown, Viaduct and Wynyard areas are not undermined and such linkages are future proofed
- Pedestrian connectivity and safety on Halsey Street Extension Wharf and Western Viaduct Replacement Wharf, within Wynyard Quarter and between Wynyard Quarter and the CBD
- Recognise there will be an increase in pedestrians and cyclists using the areas within the near future and provide for these adequately e.g. physically separated cycleway and end of use facilities
- Reprioritise Wynyard Crossing bridge so pedestrians and cyclists have priority over boats.

Parking Effects

- Parking spaces for construction vehicles are limited in the Wynyard and Viaduct Harbour precincts and mitigation measures must be provided
- Ensure parking and access for users and businesses in the Wynyard and Viaduct Harbour precincts are not undermined or adversely affected during all phases of the proposal

- j. Parking management to be provided to avoid adverse effects on the operation of current and future commercial development in Wynyard Quarter; this is in particular for the construction phase of the proposal.

Site Access for Properties and especially for those in Wynyard Quarter

- k. Continued site access must be provided for operators within Wynyard Quarter during construction and events. In particular Firth Industries has submitted and stated that their activities generate 200 heavy vehicle trips per day involving concrete trucks, truck and trailers delivering aggregates and cement tanker deliveries. This submitter operates from 58-108 Hamer Street, is located in close proximity to the proposed Wynyard Point bases and is concerned with access effects especially during the Events Phase when a significant number of visitors will be accessing this part of Wynyard Quarter using various modes of transport including walking and cycling
- l. Affected parties must be consulted in the preparation of the various management plans
- m. Continued site access must be provided to all sites within the Wynyard and Viaduct Harbour precincts for all modes of transport including pedestrians, cyclists, vehicles and delivery vehicles.

Traffic Conditions within Wynyard Quarter

- n. Concerns are raised in relation to the existing traffic conditions and congestion in the area due to the current and consented development that is occurring or is due to occur
- o. The proposal will increase traffic effects within the areas during construction and events
- p. Vehicular traffic will affect pedestrians and cyclists' safety, as these activities will conflict with each other. Sufficient mitigation measures will need to be provided to address these concerns
- q. Recognise that there are limited routes options for traffic travelling within and accessing Wynyard Quarter
- r. Submitters are uncertain if proposed management plans can adequately mitigate these adverse effects.

Construction Management Plans and Events Management Plans

- s. The lack of details provided in the application do not assist submitters to ascertain the potential adverse effects on transportation and traffic for users and activities within the areas
- t. Key stakeholders e.g. WQTMA are concerned with the number of people that will be accessing the area during events
- u. Insufficient details are provided in the application in relation to number of people anticipated during events and the expected modes of transport that visitors will take
- v. Consultations with key stakeholders including businesses and residents are requested for the preparation of management plans. This should form part of the conditions of consent.

- 9.4 The transport effects of the proposal including the transport matters raised in the submissions have been reviewed and assessed in Sections 5, 6, 7, 8 of this report. We are satisfied that sufficient information has been provided by the Applicant to address the transport issues raised in the submissions above, although we note that information and supporting assessment relies on the Applicant mitigating and managing adverse transport effects through the development, implementation, monitoring and review of numerous transport plans during the Construction, Operational and Events Phases of the proposal.
- 9.5 As these plans are yet to be fully developed, it is considered reasonable that submitters should be given the opportunity to be consulted on the transport matters raised in their submissions. Subject to this consultation occurring, we consider that implementation, monitoring and review of the transport management plans will be adequate to avoid, remedy and mitigate adverse effects on the transport network during the Construction, Operational and Events Phases of the proposal, including future phases (within the 10-year consent period) should ETNZ successfully defend the cup during AC36.

10 CONDITIONS OF CONSENT

10.1 Applicant's Proposed Conditions of Consent

10.1.1 We have reviewed the Applicant's "Version 2 Transport" of the Proposed Conditions of Consent provided on 8 June 2018, which includes tracked changes to some of the Applicant's proposed traffic conditions. We, together with Auckland Transport, have had direct input the proposed transportation related conditions attached to the Council's planning report.

10.2 Additional Transport Matters included as Conditions of Consent

Monitoring and Review Conditions

10.2.1 Auckland Transport considers that there should be a mechanism to allow Council and Auckland Transport to evaluate the effectiveness of the various transport management plans at key stages of the project. We agree and recommend that Transport Evaluation Reports should be completed for the Construction, Operational and Event Phases so that the effectiveness of the various transport plans during each phase can be assessed. The outcomes of the evaluation should be supported by conditions that will allow the Council (and Auckland Transport) to request additional transport management measures to mitigate any adverse transport effects, backed by the ability to initiate a section 128 review of the conditions, if need be

Construction Staff Travel Plan Monitoring and Review Conditions

10.2.2 The effectiveness of the Construction Staff Travel Plan will be critical in mitigating traffic and on-street parking effects generated by construction staff. We therefore recommend that a monitoring and review/amend condition be included that will allow Council, in conjunction with Auckland Transport, to early on, and on an ongoing basis if required, monitor the effectiveness of the Construction Staff Travel Plan.

Syndicate Staff Travel Pan Monitoring and Review Conditions

10.2.3 Similarly during the Operational Phase, the effectiveness of the Syndicate Staff Travel Plan will be critical in mitigating traffic and on-street parking effects generated by syndicate staff. We therefore recommend that a monitoring and review/amend condition of consent be included that will allow Council, in conjunction with Auckland Transport, to early on, and on an ongoing basis if required, monitor the effectiveness of the Syndicate Staff Travel Plan.

Review of Detailed Design

10.2.4 Auckland Transport require that they, through the Council's compliance monitoring team, are afforded the opportunity to review and approve all transport related detailed design elements of the Proposal. The transport related detailed design elements must be in accordance with Auckland Transport Urban Street and Road Design Guide, Auckland Transport Code of Practice and Chapter 27, Transportation of the Auckland Unitary Plan, Operative in Part.

11 CONCLUSIONS AND RECOMMENDATIONS

- 11.1 Our main conclusions are that we generally agree with the information and proposed mitigation measures in the Beca TA report. We are however of the view that, as the majority of the transport related mitigation measures relate to the effectiveness of management plans, as well as having regard to the 10-year period of the consent, there needs to be the opportunity for Council in conjunction with Auckland Transport, to monitor and review the transport related mitigation measures.

Construction Phase

- 11.2 In particular during the Construction Phase, the effectiveness of the Construction Staff Travel Plan will be critical in mitigating traffic and on-street parking effects generated by construction staff. While we agree that these effects will be acceptable if the mitigation measures are successful, this conclusion is based on the assumption of successful outcomes from the Construction Staff Travel Plan. Accordingly, there is a risk that if this plan is not effective, the traffic and parking effects during the Construction Phase will be more than minor. We therefore recommend that a monitoring and review/amend condition be included that will allow Council, in conjunction with Auckland Transport, to early on, and on an ongoing basis if required, monitor the effectiveness of the Construction Staff Travel Plan, and amend it if need be.

Operational Phase

- 11.3 Similarly during the Operational Phase, the effectiveness of the Syndicate Staff Travel Plan will be critical in mitigating traffic and on-street parking effects generated by syndicate staff. We therefore recommend that a monitoring and review/amend condition of consent be included that will allow Council, in conjunction with Auckland Transport, to early on, and on an ongoing basis if required, to monitor the effectiveness of the Syndicate Staff Travel Plan, and amend it if need be.
- 11.4 The provision of appropriate pedestrian and cyclist facilities allowing staff to walk, run, scooter and cycle to and from the syndicate bases during the Operational Phase, is considered to be a critical factor in the successful delivery of the Syndicate Staff Travel Plan. While separated facilities for pedestrians and people cycling is safer than shared facilities, given the likely volume of cyclists generated by the syndicate staff, we agree with the Applicant that this is unlikely to be sufficient to require them to upgrade the existing facilities provided in Wynyard Quarter during the AC36 Operational Phase. However, considering the unknown take up of cycling as a mode of travel by syndicate staff, we recommend that mode share and the need for separated facilities be reviewed as part of the monitoring and review/amend condition.
- 11.5 Further, considering the 10-year time period for the consent, and the changes to land use activity and associated increase in pedestrians and people cycling that is likely to occur in the Wynyard and Viaduct Harbour precincts over this time period, we recommend that, in conjunction with subsequent events (for example, say, AC37 should ETNZ successfully defend the cup during AC36), effects to pedestrians and cyclists during the Operational Phase of that event be re-evaluated. This process should allow Council and Auckland Transport to understand if changes

to pedestrian and cycle infrastructure, on-street parking management and property access provisions resulting from future Operational Phases are required to be provided, as well an opportunity to update and amend the requirements the Syndicate Staff Travel Plan and the requirements in the Servicing, Delivery and Guest Transport Plans for Wynyard Point, Halsey Wharf and Hobson Wharf.

Events Phase

- 11.6 During the Events Phase of the projects, we conclude that transport effects on the operation of the immediate environment will be more than minor and will include a significant increase in pedestrians, people cycling, private vehicle and taxi movements to and from the Wynyard and Viaduct Harbour precincts and surrounding areas, especially on race days. Further, during this time there will be an increase in people travelling by bus and train to and from Fanshaw Street and the downtown area, as well as an increase in the demand for car and bicycle parking within, and on the outskirts of the Wynyard and Viaduct Harbour precincts. There may also be the requirement to close and/or manage certain parts of the road network, including on-street parking, during this time.
- 11.7 These significant transport effects are considered to be acceptable subject to the successful outcomes of the various transport management plans included in the Event Management Plan, and therefore their review and refinement need to be on-going requirements to ensure that the desired outcomes are achieved.
11. As for the Operational Phase, we recommend that for future events following AC36, Council and Auckland Transport have the opportunity, following a monitoring and review process, to update and amend the requirements relating to the transport plans in the Event Management Plan.
- 11.9 Finally we note that due to the lack of detailed information associated with the transport design aspects of the bases' infrastructure and specific matters to be included in the various management plans, the majority of transport related submissions are from businesses and residents in the Wynyard and Viaduct Harbour precincts who are concerned about transport effects during the Construction, Operational and Events Phases of the project. As such we consider that the Proposed Conditions of Consent should be amended to allow for submitters to be consulted on the development, implementation and operation of the various management plans during each phase of the AC Wynyard Hobson proposal.

APPENDIX A

Bridge Operation letter

Bridge Operation

1. Introduction

- 1.1 It is proposed that an opening pedestrian and cycling bridge connecting Te Wero and the western side of Viaduct Harbour will be in operation by mid 2011
- 1.2 Viaduct Harbour is at times subject to large numbers of vessel movements. To provide adequate levels of safety it is necessary to exercise direct control of vessel traffic in this area and its approaches as part of Viaduct Harbour waterspace control operations.
- 1.3 Marine traffic has priority at all times in accordance with the operational procedures outlined below.

2. Command Structure

- 2.1 Overall control of navigation in Viaduct Harbour and bridge operation will be managed by the Waterspace Management Committee, appointed in accordance with the Viaduct Basin Management Policy as contained in the Environment Court Consent Order dated 10 February 1998.
- 2.2 Events in Viaduct Harbour Waterspace shall be managed in accordance with the Policy and Management Deed.
- 2.3 Any other variation to the normal navigation and bridge operations provided for in this Schedule is subject to the approval of the Waterspace Management Committee in accordance with clause 3.4.4 of the Management Deed. The Committee will only consider the adverse effects on navigation, berthage, marine passage and use of the Waterspace arising from the variation.
- 2.4 Review of and amendments to the operational procedure will be managed by the management committee.
- 2.5 Operation of the bridge and management of vessel movement with regard to bridge operation will be the responsibility of the bridge master. The Bridge Master will be instructed by and report to the Waterspace Management Committee.
- 2.6 The NZ Police, the NZ Fire Service and the Auckland Regional Council Harbourmaster retain their statutory authorities to give directions in their respective areas of responsibility. These directions must be complied with.

3. Bridge Operation

- 3.1 It is anticipated that the bridge will be operated 24 hours per day however at any time the bridge is not in operation the default position is open to marine traffic.
- 3.2 In the event of machinery failure or during maintenance the bridge is to be locked in the open position. There must be an alternative opening method in case of failure (possibly barge or land based crane).

- 3.3 Good communication between the Bridge Master and marine users is essential.
- 3.4 An absolutely rigid opening timetable will not work as well for boats or pedestrians as a system with flexibility.
- 3.5 Scheduled tourist trips (Fullers, Maritime Museum boats etc) will be catered for by holding the bridge open while they do a short circuit of the harbour (say 5 minutes from passing in through the bridge to passing out) The schedule for these trips is to be agreed with tourism operators however it will be designed to avoid the morning and evening commuter peaks.
- 3.6 The channel from the outer entrance of Viaduct Harbour to the south side of the bridge should be considered to be one way for large vessels or vessels restricted in their ability to manoeuvre (restrictions to be defined in consultation with the Harbourmaster).
- 3.7 Large vessels will have to stand off outside Viaduct harbor until the bridge is fully open before moving in through the main entrance.
- 3.8 Vessels departing should call the Bridge Master prior to leaving their berth.
- 3.9 Incoming vessels should call when they arrive at the Viaduct Harbour outer green buoy and await clearance from the Bridge Master before transiting the outer entrance.
- 3.10 Signs will be required at the outer entrance instructing vessels to call the Bridge Master for instructions. Navigation lights on the bridge or bridge approaches will be designed in consultation with the Harbour Master and take into account any relevant IALA or Maritime New Zealand regulations or guidelines.
- 3.11 The scheduled opening time for the bridge is every 20 minutes during the morning and evening peak pedestrian periods (nominally 0730 – 0900 and 1600-1730) At all other times the bridge will open on demand. However it is recognised that flexibility in the timing will be beneficial to all concerned.

For example:

- If there is no demand from marine users at a scheduled opening time then the bridge will not open.
- Operations involving large vessels, vessels under tow (e.g. AC Yachts) and other vessels restricted in their ability to manoeuvre may require the bridge to be open for extended periods. Where possible these operations will be timed to avoid the morning and evening pedestrian peak periods.

4. Communications

- 4.1 Communications between the bridge master and vessels will be by VHF Radio Channel 73.

*Document issued 6th May 2010
Issue purpose: final for agreement
Subject to Legal audit & VVHL Board review & ACC Legal audit*

APPENDIX B

Updated Safety Record

PROJECT ACXX 338
SUBJECT AMERICA'S CUP WYNYARD HOBSON: HISTORIC SAFETY ASSESSMENT
DATE 15 MAY 2018

This technical note updates Section 3.4.12, Existing Road Safety Record of the America's Cup Traffic and Transport Technical Report for Consent Application Wynyard Hobson, prepared by Beca and dated A (Beca TA report). In particular the assessment has been undertaken for the past most up to date years being 2013 to 2017, compared to the assessment dates of 2012 to 2016 contained in the Beca TA report.

Reported crash records for roads close to, and within the Wynyard Hobson bases have been obtained from the New Zealand Transport Agency's Crash Analysis System. Particular focus has been given to understanding the type and severity of fatal, serious injury and minor injury crashes and if any of these involved pedestrians or bicycles. The pedestrian and cyclist crashes are marked in green and blue, respectively in Figures A1 and A2. Figure A1 presents a summary of collision diagrams for fatal and serious injury crashes and Figure A2 presents a summary of collision diagrams for the minor injury crashes

Figure A1: Fatal and serious injury crashes between 2013 and 2017 (red circle shows fatal crash)

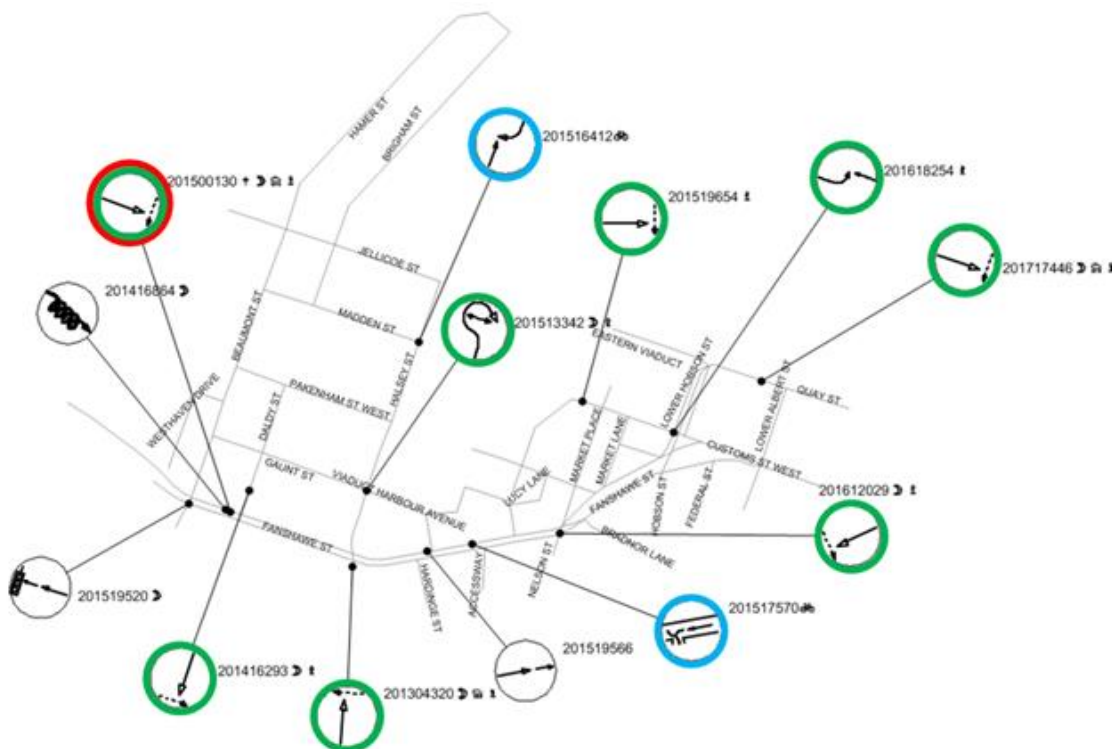
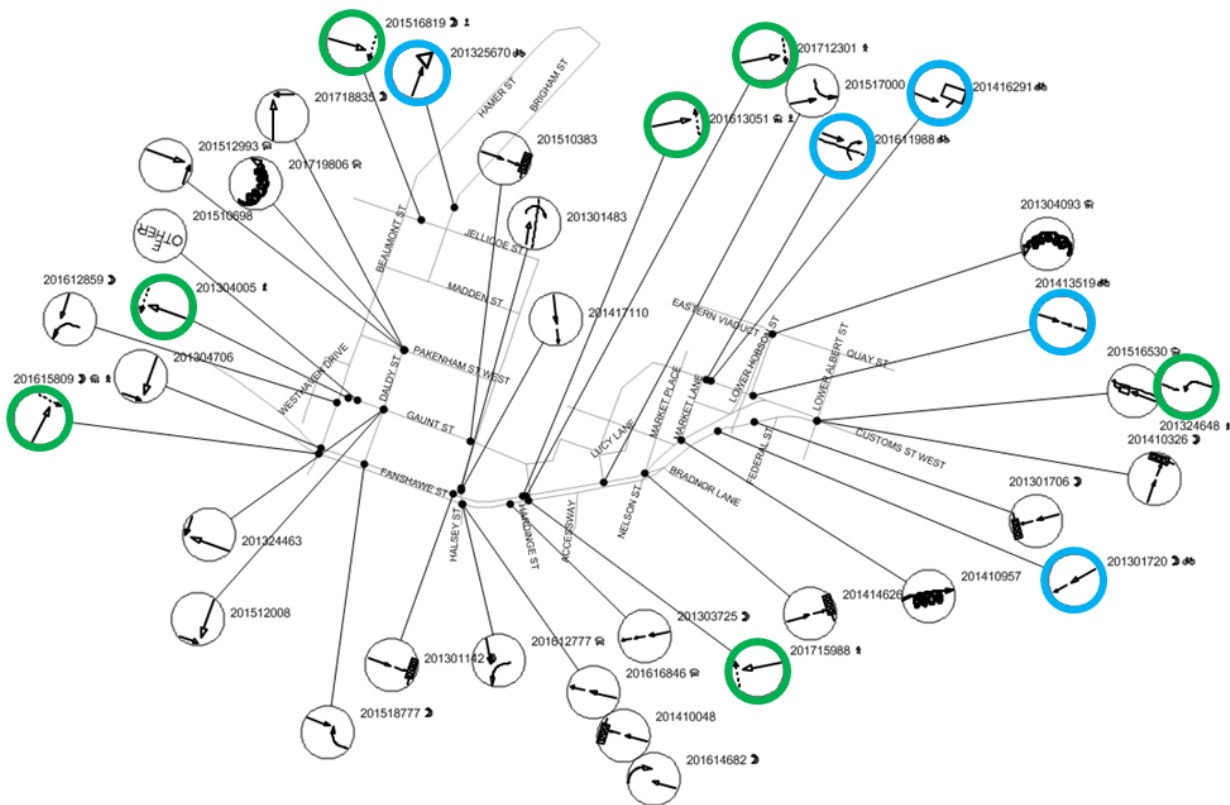


Figure A2: Minor injury crashes between 2013 and 2017



In summary, in the study area there has been 253 crashes reported in total, with one being a fatal crash, 13 being serious crashes, 42 being minor injury crashes and 198 being non-injury crashes. Further 18 of these crashes were pedestrian crashes and nine cyclist crashes. Most of pedestrian and cyclist crashes resulted in serious and minor injuries.

The one fatal crash involved one pedestrian killed by a truck on Fanshawe Street and is highlighted in red in Figure A1. The truck was travelling east and the pedestrian was crossing south at a signalled crossing from the northern side of Fanshawe Street. The pedestrian had been seen at late notice in a wet and dark environmental condition. In addition to this three serious and five minor injury pedestrian crashes and one serious and one minor injury bicycle crashes have occurred on Fanshawe Street. This highlights the high traffic volumes of this route together with the increasing demand by pedestrians to cross Fanshawe Street. Further the severity of the crashes show that pedestrian and cyclists are more likely to result in a serious injury or minor injury crash.

Reference: P:\ACXX\338 AC36 WYNYARD HOBSON Proposal Peer Review\Peer Review report\CAS 2013-2017\R1A180515_Technote_Safety Assessment.docx - Yanfei Hong

APPENDIX C

Predicted changes to traffic demand during the Operational and Events Phases

AC Wynyard Hobson Traffic Generation during Operational Phase

Wynyard Point											
				Daily	AM Peak			PM Peak			
		25%			In	Out	Total	In	Out	Total	
Staff	430	108	demand	215	91	0	91	0	91	91	<i>Assumptions 85% arrive/depart in peak hour</i>
Bases deliveries	30	veh mov per day per base		150	8	7	15	7	8	15	<i>10% occurs in peak</i>
Base Guests (taxi)	10% of Event phase	17	taxis	34	0	0	0	9	9	19	<i>55% arrive/depart in peak hour</i>
Base Guests (drive)	10% of Event phase	45	cars	89	0	0	0	25	25	49	<i>55% arrive/depart in peak hour</i>
less				488	99	7	106	41	133	174	
ASB car park	269	spaces		538	148	0	148	0	148	148	<i>55% arrive/depart in peak hour</i>
TOTAL				-50	-49	7	-42	41	-15	26	
Halsey Wharf											
				Daily	In	Out	Total	In	Out	Total	
Staff	110	28	demand	55	23	0	23	0	23	23	<i>85% arrive/depart in peak hour</i>
Bases deliveries	30	veh mov per day per base		30	2	1	3	1	2	3	<i>10% occurs in peak</i>
Base Guests (taxi)	10% of event	5	taxis	9	0	0	0	2	2	5	<i>55% arrive/depart in peak hour</i>
Base Guests (drive)	10% of event	15	cars	30	0	0	0	8	8	16	<i>55% arrive/depart in peak hour</i>
Superyachts	15	berths		60	3	3	6	3	3	6	<i>10% occurs in peak</i>
TOTAL				184	28	4	32	15	39	54	
Hobson Wharf											
				Daily	In	Out	Total	In	Out	Total	
Staff	110	28	demand	55	23	0	23	0	23	23	<i>85% arrive/depart in peak hour</i>
Bases deliveries	30	veh mov per day per base		30	2	1	3	1	2	3	<i>10% occurs in peak</i>
Base Guests (taxi)	10% of Event phase	3	taxis	5	0	0	0	1	1	3	<i>55% arrive/depart in peak hour</i>
Base Guests (drive)	10% of Event phase	9	cars	18	0	0	0	5	5	10	<i>55% arrive/depart in peak hour</i>
Superyachts	2	berths		8	1	0	1	0	1	1	<i>10% occurs in peak</i>
TOTAL				116	26	1	27	7	33	40	

AC Wynyard Hobson Traffic Generation during Events Phase (weekday)

Wynyard Point											
				Daily	AM Peak			PM Peak			
		25%			In	Out	Total	In	Out	Total	
Staff	430	108	staff	215	91	0	91	0	91	91	<i>Assumptions 85% arrive/depart in peak hour</i>
Additional staff	150	38	staff	75	32	0	32	0	32	32	<i>assume 20 staff per base, 50 media</i>
Bases deliveries	60	veh mov per day per base		300	8	7	15	7	8	15	<i>plus double the Operational Phase 10% occurs in peak</i>
Base Guests (taxi)		170	taxis	340	0	0	0	94	94	187	<i>55% arrive/depart in peak hour</i>
Base Guests (drive)		446	cars	892	0	0	0	245	245	491	<i>55% arrive/depart in peak hour</i>
less				1,822	131	7	138	346	470	816	
ASB car park	269	spaces		538	148	0	148	0	148	148	<i>55% arrive/depart in peak hour</i>
TOTAL				1,284	-17	7	-10	346	322	668	
Halsey Wharf											
				Daily	In	Out	Total	In	Out	Total	
Staff	110	28	demand	55	23	0	23	0	23	23	<i>85% arrive/depart in peak hour</i>
Additional staff	20	5	staff	10	4	0	4	0	4	4	<i>assume 20 staff per base</i>
Bases deliveries	60	veh mov per day per base		60	2	4	6	1	5	6	<i>plus double the Operational Phase 10% occurs in peak</i>
Base Guests (taxi)		45	taxis	90	0	0	0	25	25	50	<i>55% arrive/depart in peak hour</i>
Base Guests (drive)		149	cars	298	0	0	0	82	82	164	<i>55% arrive/depart in peak hour</i>
Superyachts	15	berths		120	3	3	12	3	3	12	<i>plus double the Operational Phase 10% occurs in peak</i>
less				633	33	7	46	111	142	259	
VEC temporary car park	82	spaces		82	23	0	23	0	23	23	<i>50% are used and 55% arrive/depart in peak hour</i>
Fishing Industry car park	32	spaces		54	18	0	18	0	18	18	<i>85% arrive/depart in peak hour</i>
TOTAL				497	-8	7	5	111	102	219	

Hobson Wharf											
				Daily	In	Out	Total	In	Out	Total	
Staff	110	28	demand	55	23	0	23	0	23	23	85% arrive/depart in peak hour assume 20 staff per base
Additional staff	20	5	staff	10	4	0	4	0	4	4	
Bases deliveries	60	veh mov per day per base		30	2	1	3	1	2	3	plus double the Operational Phase 10% occurs in peak
Base Guests (taxi)		27	taxis	54	0	0	0	15	15	30	55% arrive/depart in peak hour
Base Guests (drive)		89	cars	178	0	0	0	49	49	98	55% arrive/depart in peak hour
Superyachts	2	berths		16	1	0	2	0	1	2	plus double the Operational Phase 10% occurs in peak
TOTAL				343	31	1	32	65	94	160	

APPENDIX N

RICHARD SIMONDS

GROUNDWATER REPORT

Technical memo - Specialist Unit

To: Nicola Broadbent, Team Leader - North West Resource Consenting Unit, Auckland Council

From: Richard Simonds, Senior Specialist - Coastal & Water Allocation, Resource Consents, Auckland Council

Date: 19 June 2018

1.0 APPLICATION DESCRIPTION

Application and property details

Applicant's Name/
Application Name: Panuku Development Auckland / America's Cup Wynyard Hobson

Service Centre Application
Number & Water Allocation
Consent Number: BUN60318372 & WAT60318377

Activity type: The take and diversion of groundwater as a result of ground improvements along Brigham Street.

Site address: Wynyard Point & Wynyard Wharf, Auckland CBD

Application Documents

1.1 This report provides a regulatory review and assessment of the effects of taking and diverting groundwater associated with the America's Cup Wynyard Hobson resource consent application, which I refer to in this memo as "**the Application**".

1.2 The following application documents are particularly relevant to this report:

- a) Application for Resource Consent: Assessment of Environmental Effects (**AEE**), America's Cup Wynyard Hobson, 13 April 2018, prepared by UNIO Environmental Limited (**UNIO**);
- b) Document 7 to the AEE, Applicant's Proposed Draft Consent Conditions, 13 April 2018, prepared by UNIO (the **Applicant's Draft Conditions**);
- c) Document 26 to the AEE, America's Cup Groundwater Technical Report for Resource Consent Application, Wynyard Hobson, 11 April 2018, prepared by Beca Limited (the **Beca Groundwater Report**).

- d) Document 9 to the AEE, America’s Cup Physical Infrastructure Technical Report for Resource Consent Application, Wynyard Hobson, 11 April 2018, prepared by Beca Limited (the **Beca Infrastructure Report**).
- e) An email received from UNIO dated 16 May 2018, providing an amended set of draft groundwater conditions (the **Amended Groundwater Conditions**).

2.0 PROPOSAL, SITE AND LOCALITY DESCRIPTION

Aspects of the Proposal considered to be Permitted Activities

- 2.1 The proposed shallow excavations and filling activities required as part of the America’s Cup Wynyard Hobson development comply with the Permitted Activity Standards E7.6.1.6 and E7.6.1.10 for the take and diversion of groundwater.
- 2.2 In relation to the proposed maritime activities such as coastal works and the Hobson Wharf extension, I concur with the statement in Section 1.2 of the Beca Groundwater Report that “they will not have any impact on the groundwater regime “and are therefore these activities are not considered further in this report.
- 2.3 In the Beca Groundwater Report the following activities are described that may encounter the groundwater table:
 - a) Piling for buildings
 - b) Ground improvements.
- 2.4 In relation to piling for buildings, Section 3.1.2 of the Beca Groundwater Report states that piles of up to 600 mm diameter may extend to a depth of greater than 20 metres below ground level (mbgl). The Beca Report states:

... Driven and screw piles will not require any dewatering. Bored pile holes are expected to be cased and either locally dewatered for only very short periods (days) before concreting, or, will be constructed as wet pours with no dewatering. As the piles are not contiguous (overlapping) they are unlikely to result in any impedance of groundwater flow or mounding.
- 2.5 Based on these measurements, I consider that a consent for take and diversion of groundwater is not required in relation to piling for buildings.

Aspects of the Proposal relevant to this permit/consent only

- 2.6 Development of the south-eastern portion of Wynyard Point is proposed to accommodate five bases as part of the America’s Cup Wynyard Hobson Application.
- 2.7 Ground improvements, also referred to as stabilisation in the Beca Groundwater

Report, are required for the proposal over approximately 230m of Brigham Street as shown on Figure 1 below, which also shows the Wynyard Point reclamation.

2.8 The term “ground improvements” has been defined at Section 3.1.2 (page 11) of the Beca Groundwater Report as:

“... improvements that will likely comprise cement-stabilised columns (or stone columns), placed in a lattice pattern and extending some 20 m landward of the existing seawalls. These columns are likely to extend to depths of 10 m to 15 m. Ground improvements could also include a cement stabilised “raft” in the upper few metres of the soil profile (i.e. more akin to the in-situ stabilisation used for roading upgrades in Wynyard Quarter) over the full extent of the lattice and / or piling at a diameter of up to 2 m.”



Figure 1

2.4 The key matters to note, for the purposes of assessing the permitted activities and the actual and potential effects of the Application, are as follows:

- a) Only shallow excavations, less than 1m below existing ground level are proposed to create level building platform or for the installation of services.
- b) The piling for buildings may require dewatering for very short periods (days) from within cased holes.
- c) The ground improvements will be permanent.
- d) The length of the area for ground improvements will be approximately 230 m and the depth of ground improvement will be approximately 13 m below groundwater level.
- e) The cement-stabilised columns or stone columns to be used in ground improvements may exceed 1.5 m in diameter.
- f) Site-specific geotechnical investigations across Wynyard Point indicate that the ground conditions consist of reclamation fill materials overlying a variable thickness of recent marine sediments and Tauranga Group alluvial deposits that have infilled an old valley system. East Coast Bays Formation rock is encountered at a variable depth, ranging from -15 m to -23 m Chart Datum (CD) with the axis of the paleo-valley inferred to run parallel to (and beneath) Wynyard Point reclamation.
- g) Groundwater levels and flow directions across the Wynyard Point reclamation are complex as a result of the heterogeneous nature of the reclamation fill and presence of seawalls (of a wide range of construction types), both of which result in varying local permeabilities, tidal lags and tidal ranges over relatively small distances.
- h) Where the outer reclamation walls are permeable, it is expected that groundwater levels will be principally controlled by sea level. Where the outer reclamation walls are impermeable, groundwater levels will be controlled by local soil conditions as well as the presence of service trenches which may act as preferential flow paths.
- i) Historic groundwater level monitoring of the former BP Hamer Street site located adjacent to the southern extent of Wynyard Wharf, indicates slightly elevated groundwater levels, at 2.0 to 2.5 m RL, however elsewhere on Wynyard Point, groundwater levels tend to be in the range of 0.0 to 1.1 m RL (1.9 m to 3.0 m below ground level, based on a typical ground level of 3 m RL).

Background and site history relevant to this permit/consent only

2.5 No groundwater take and diversion consents have been or are held for the site or within 150m of the site.

3.0 REASON FOR CONSENT – GROUNDWATER DIVERSION

Reasons for consent

3.1 The proposed ground improvements will encounter groundwater and will not fully comply with the following permitted activity standards in Chapter E7 of the Auckland Unitary Plan (Operative in Part) (**AUP**) relating to the “Taking, using, damming and diversion of water and drilling”:

- a) E7.6.1.10 (1)(c), which provides an exemption from the standards for piles up to 1.5 m in external diameter (as noted, the cement-stabilised columns or stone columns may be greater than 1.5m in diameter); and
- b) E7.6.1.10 (4), which provides that:

Any structure, excluding sheet piling, that remains in place for no more than 30 days, that physically impedes the flow of groundwater through the site must not:

(a) impede the flow of groundwater over a length of more than 20m; and

(b) extend more than 2 m below the natural groundwater level.

As noted, the length of the ground improvements will be approximately 230 m and may partially impede groundwater flow, and the depth of the ground improvements is approximately 13 m below natural groundwater level.

3.2 As such, the proposed activity of ground improvements will require a permit for the diversion of groundwater as a **Restricted Discretionary Activity**. The trigger for this can be found in Activity Table E7.4.1 at (A28).

4.0 TECHNICAL ASSESSMENT OF EFFECTS

Effects that may be disregarded – Permitted Baseline Assessment

4.1 It is difficult to separate effects of permitted activity scale development from that likely to result from this proposal. The permitted baseline does not therefore assist in this assessment.

Assessment of Effects

4.2 I consider that :

- a) There are no adjacent ecosystems that may be adversely affected as a result of the groundwater related activities. In addition there are no nearby take and diversion of groundwater consents and therefore there are no cumulative

effects occurring on the surrounding sites. I consider that there will not be any adverse effects on the underlying East Coast Bays Formation aquifer due to the proposed activities and hence the effects on any other users of the aquifer will be less than minor.

- b) Overall I consider there to be less than minor effects on the environment as a result of the proposed activities.

I concur with the key findings of the effects assessment detailed in the Beca Groundwater Report at Section 7 (page 25), which I summarise as follows:

- c) The pile holes required for buildings are likely to be cased and either locally dewatered for only very short periods (days) or will be constructed as wet pours with no dewatering.
- d) There is negligible up-gradient driving head and groundwater levels under Wynyard Point are expected to be principally controlled by the tide and local soil conditions.
- e) The ground improvements will be parallel, or at an oblique angle to the direction of groundwater flow. Therefore, they are unlikely to act as a dam but may partially impede groundwater flow.
- f) Modelling of changes in groundwater level associated with previous ground improvements in the Wynyard Quarter area calculates typically less than 0.2 m of mounding (i.e. less than seasonal / tidal range in this area).
- g) Previous roading upgrades that have required ground improvements in the wider Wynyard Quarter area have resulted in negligible change in groundwater levels post-construction (i.e. previous modelling is conservative).
- h) Groundwater drawdown is not anticipated. In the unlikely event that groundwater mounding does occur, the groundwater levels will remain more than 1.2 mbgl and so no buoyancy effects on services or surface structures are anticipated.

Monitoring

4.3 Section 6.1 Monitoring Considerations (page 22) of the Beca Groundwater Report states that “*No significant excavations are proposed and as such ground and building settlement is not expected to occur. For this reason, no survey monitoring (ground or building), or, building or utility condition surveys are proposed.*” I support this statement.

4.4 Beca Limited has however, proposed groundwater monitoring boreholes in order to more fully understand the groundwater regime adjacent to the area of proposed ground improvements. Groundwater level monitoring is proposed in standpipe piezometers installed in three new machine drilled boreholes (AC36_PZ01 to PZ03). The proposed locations of the groundwater monitoring boreholes are shown on

Figure 5 (page 22) of the Beca Groundwater Report.

- 4.5** Beca Limited has recommended that the groundwater monitoring boreholes be installed as soon as practical, in order to allow for a sufficient period of baseline monitoring to confirm the tidal (and if possible seasonal ranges) at each site ahead of any ground improvement works or piling for buildings (thus constituting “pre-construction” monitoring). Beca Limited recommends that as a minimum, one month of baseline readings will be required.
- 4.6** The proposed groundwater trigger levels (alert levels 1 & 2) and rationale for the selection of the groundwater trigger levels is outlined at paragraph 6.1.2 (page 23) of the Beca Groundwater Report. They indicate that final trigger levels for the groundwater monitoring will be set once baseline pre-construction groundwater monitoring data is available. I consider that the proposed scope of monitoring and trigger levels in the Beca Groundwater Report is appropriate.
- 4.7** In section 6.2, of their report, Beca Limited indicates that once all instruments have been installed and the results of baseline groundwater monitoring are available to set final trigger levels, a Groundwater Monitoring and Contingency Plan (**GWMCP**) will be submitted to Council for certification prior to any ground improvements commencing. Beca propose that the GWMCP will need to include the following:
- a) Confirmation of the nature of ground improvements.
 - b) Final location and as-built details of piezometers.
 - c) Results of baseline monitoring data taken in advance of works.
 - d) Establishment of final trigger levels and appropriate contingency measures.
 - e) Details of monitoring to be undertaken (type, frequency and review).
 - f) Review and reporting requirements.
 - g) Roles and responsibilities.
 - h) A system of review to determine at what stage after construction, monitoring can be reduced or cease.
- 4.8** I consider that it would be appropriate for a GWMCP to be required as a condition of consent, if granted. In addition, I consider that the proposed contents of the GWMCP, as listed above, are appropriate.

Submissions

- 4.9** None of the submissions received have raised any concerns regarding the groundwater diversion consent.

Conclusions

- 4.10** I concur with the assessment of groundwater effects provided by the applicant and conclude that:

- a) There have been adequate on site geotechnical investigations to provide appropriate and suitably conservative geotechnical and groundwater level data for an adequate assessment of effects.
- b) On the basis of the effects assessment, a GWMCP is required to ensure that groundwater levels remain within the predicted envelope.
- c) The effects of the proposed take and diversion of groundwater are considered to be less than minor for neighbouring buildings, structures and services and less than minor for the environment.

5.0 STATUTORY CONSIDERATIONS

Objectives and policies of the AUP

- 5.1** The objectives and policies relevant to the groundwater diversion aspects of the application in relation to the **AUP** are provided in Chapter E7 “Taking, using damming and diversion of water and drilling”, in particular Standards E7.2 & E7.3 and in Chapter E2 “Water quantity , allocation and use”, in particular Standards E2.3 (6), (7) and (23). Whilst the assessment of objectives and policies is a matter for the Council’s reporting planner, I have read the objectives and policies stated above, and as I have set out in Section 4 of this memo from a technical perspective, subject to implementation of the project in a manner consistent with best practice and adherence to the recommended conditions of consent, I consider the proposal to not be inconsistent with them.

Other relevant matters

- 5.2** There are no other matters considered relevant and reasonably necessary to consider with respect to the proposed groundwater take and diversion.

Duration of consent: Section 123

- 5.3** It is considered appropriate to set a term of 35 years for the groundwater diversion consent because the groundwater diversion will occur in the long-term and effects on the environment will be less than minor.

6.0 RECOMMENDATION AND CONDITIONS

Recommendation

- 6.1** The assessment in this memo does not identify any reasons to withhold consent and the aspect of the proposals considered by this memo could be granted consent subject to recommended conditions set out below.

Draft Consent Conditions

- 6.2** Conditions concerning groundwater were provided as Conditions 93 to 102 of the

Applicant's Draft Conditions. Subsequently an email was received from UNIO on 16 May 2018 with a set of Amended Groundwater Conditions.

6.3 I have reviewed the Amended Groundwater Conditions and consider that they are appropriate with the exception of the following:

- (a) Throughout the groundwater conditions reference is made to the "Team Leader – Central Monitoring." This is not the correct role description. The correct role description is "Team Leader Compliance Monitoring Central" and the groundwater conditions should be amended accordingly.
- (b) Delete the monitoring location plan from condition 96(a) (condition 4(a) in the Amended Groundwater Conditions), and replace it with a cross-reference to Figure 5 in the Beca Groundwater Report.
- (c) The text following the table in condition 99 should be amended as follows, for consistency with other groundwater conditions, which generally refer to "stabilisation":

...

The monitoring frequency may be changed as part of the certification process by the Team Leader Compliance Monitoring – Central ~~Monitoring~~. Any change shall be specified in the GWMCP. In addition, the 6 month monitoring period post Completion of Dewatering/Stabilisation may be extended, by the Team Leader Compliance Monitoring – Central ~~Monitoring~~, if measured groundwater levels are not consistent with inferred seasonal trends or predicted groundwater movement.

Advice Note: If groundwater level measurements show an inconsistent pattern immediately prior to the Commencement of Dewatering/Stabilisation (for example varying more than +/-200mm during a month), then further readings may be required to ensure that an accurate groundwater level baseline is established before dewatering commences.

- (d) The Amended Groundwater Conditions employ a number of terms and expressions, which I consider should be defined. I recommend that the following definitions be inserted in the definitions condition (condition 1):

Definitions

Words in the groundwater diversion conditions have specific meanings as outlined in the table below.

Alert Levels	Specific groundwater levels at which actions are required as described in the conditions.
--------------	---

Commencement of Dewatering/Stabilisation	Means when ground improvements commence.
Completion of Dewatering/Stabilisation	Means when all ground improvements are complete.
GWMCP	Means Groundwater Monitoring and Contingency Plan.
Monitoring Station	Means a groundwater monitoring borehole.
Seasonal Low Groundwater Level	Means the annual lowest groundwater level – which typically occurs in summer.
Services	Include fibre optic cables, sanitary drainage, stormwater drainage, gas and water mains, power and telephone installations and infrastructure, road infrastructure assets such as footpaths, kerbs, catch-pits, pavements and street furniture.
Damage	Includes Aesthetic, Serviceability, Stability, but does not include Negligible Damage as described in the table below:

<i>Table 1: Building Damage Classification</i>			
Category of Damage	Normal Degree of Severity	Description of Typical Damage <i>(Building Damage Classification after Burland (1995), and Mair et al (1996))</i>	General Category <i>(after Burland – 1995)</i>
0	Negligible	Hairline cracks.	Aesthetic Damage
1	Very Slight	Fine cracks easily treated during normal redecoration. Perhaps isolated slight fracture in building. Cracks in exterior visible upon close inspection. Typical crack widths up to 1mm.	
2	Slight	Cracks easily filled. Redecoration probably required. Several slight fractures inside building. Exterior cracks visible, some repainting may be required for weather-tightness. Doors and windows may stick slightly. Typically crack widths up to 5mm.	

3	Moderate	Cracks may require cutting out and patching. Recurrent cracks can be masked by suitable linings. Brick pointing and possible replacement of a small amount of exterior brickwork may be required. Doors and windows sticking. Utility services may be interrupted. Weather tightness often impaired. Typical crack widths are 5mm to 15mm or several greater than 3mm.	Serviceability Damage
4	Severe	Extensive repair involving removal and replacement of walls especially over door and windows required. Window and door frames distorted. Floor slopes noticeably. Walls lean or bulge noticeably. Some loss of bearing in beams. Utility services disrupted. Typical crack widths are 15mm to 25mm but also depend on the number of cracks.	
5	Very Severe	Major repair required involving partial or complete reconstruction. Beams lose bearing, walls lean badly and require shoring. Windows broken by distortion. Danger of instability. Typical crack widths are greater than 25mm but depend on the number of cracks.	Stability Damage

Note: 'Description of Typical Damage' applies to Masonry buildings only. The 'General Category' applies to all buildings.

7.0 REVIEW

Memo prepared by:

Richard Simonds




Senior Specialist – Coastal & Water Allocation, Resource Consents

Date:

19 June 2018

Reviewed and approved for release by:

Andrew Benson



Team Leader, Coastal & Water Allocation, Resource Consents

Date:

19 June 2018

APPENDIX O

GLEN WRIGHT

LIGHTING REPORT

21 June 2018

Auckland Council
Private Bag 92300
Victoria Street West
Auckland 1142

Attention: Tracey Grant

Dear Tracey,

**RESOURCE CONSENT APPLICATION LODGED BY PANUKU DEVELOPMENT
AUCKLAND LIMITED FOR AMERICA'S CUP WYNYARD HOBSON**

PEER REVIEW - LIGHTING EFFECTS

1.0 Introduction

- 1.1 At the request of Tracey Grant, Principal Project Lead, Premium Resource Consents, Auckland Council I have carried out the following with respect to the above resource consent application:
- a) Identification of the relevant parts of the Auckland Unitary Plan – Operative in Part (**AUP**), that I believe are applicable to the application;
 - b) Peer review of the lighting effects parts of the applicant's resource consent application, including review of the applicant's proposed conditions of consent;
 - c) Review of submissions that included comments on the proposed lighting.
- 1.2 The application includes proposed lighting for construction, business as usual (**BAU**) and America's Cup events. A brief outline of the lighting proposed follows:
- a) Construction lighting is proposed because construction activities will also occur at night, proposed construction lighting levels of 100-150 lux, with construction lighting consisting of temporary light poles with zero tilt luminaires placed around the work areas. Proposed luminaires at 12 to 18 metres above wharf structures or 10 metres high if located on barges;
 - b) BAU lighting is proposed along the Hobson Wharf Extension and will consist of zero tilt street lighting luminaires at a height of 8 metres on lighting poles, similar to existing lighting on Halsey Street Extension, Western Viaduct and Hobson Wharves. Lighting to Syndicate Bases will be similar and similar to the existing lighting on the ASB carpark; and
 - c) America's Cup Event lighting is proposed to consist of supplementing the existing outdoor lighting with temporary event lighting to provide sufficient lighting for event visitors at night as well as for safety security and night-time working purposes.

- 1.3 Temporary event lighting is proposed at the following locations:
- a) The Eastern Viaduct;
 - b) Te Wero Island including the stage and LED screen at the eastern end of the Te Wero island; and
 - c) The team bases.
- 1.4 The temporary event lights will be attached to lighting poles between 6 to 10 metres high.
- 1.5 The event lighting will be covered in a Lighting Management Plan.

2.0 Auckland Unitary Plan – Operative in Part

- 2.1 Proposed Bases A and B are located within the Coastal – General Coastal Marine Zone, while proposed Bases C, D, E, F and G are located within the Business – City Centre Zone.
- 2.2 The following is a summary of the AUP section E24 Lighting permitted activity standards for lighting that I consider apply to the application:
- a) For the purpose of the standards in E24, the curfew time is 10pm – 7am and the pre – curfew time is 7am – 10pm¹.
 - b) The spill light (illuminance) and glare (luminous intensity) limits only apply at any adjacent site containing a lawfully established dwellings².
 - c) The Coastal – General Coastal Marine Zone is a “Lighting category 2 (low brightness)” zone. The only lawfully established dwellings adjacent to the application sites are those of the Hilton Hotel and the Princes Wharf Apartments.
 - d) The Business – City Centre Zone is a “Lighting category 4 (high brightness)” zone. All of the other nearby lawfully established dwellings are within this zone, these include Park Hyatt Hotel, Lighter Quay Apartments, The Point Apartments, The Quays Apartments and various recently constructed and consented apartment developments within Wynyard Quarter.
 - e) The spill light (illuminance) limits apply to the “added illuminance from the use of any artificial lighting on any site” and therefore existing spill light from other sites need not be considered³.
 - f) Two choices of spill light limit are provided in E24.6.1(6), either at the site boundary or at the windows of habitable rooms of a lawfully established dwelling, as outlined below.
 - g) First, in accordance with E24.6.1(6)(a) and Table E24.6.1.2 the horizontal and vertical illuminance limits at a boundary (for all lighting categories) applicable to this application are:

¹ E24.6.1(5).

² E24.6.1(6)

³ E24.6.1(6).

Time	Illuminance limit
Pre-curfew	100 lux above the background level
Curfew	10 lux above the background level

- h) Alternatively, in accordance with E24.6.1(6)(b) and Table E24.6.1.3 the vertical illuminance limits at a window applicable to this application are:

Time	Lighting category 2 Coastal - General Coastal Marine Zone	Lighting category 4 Business - City Centre Zone
Pre-curfew	10 lux	25 lux
Curfew	1 lux	4 lux

- i) While compliance with the boundary limits in E24.6.1(6)(a) is strictly speaking acceptable in terms of the AUP, for this application, where the dwellings are located on or very near to the boundary, effects on dwellings are the primary concern, therefore it is my opinion that the latter limits in E24.6.1(6)(b) at the “windows of habitable rooms of a lawfully established dwelling” should be considered and applied (even though a choice is provided). Based on the type of lighting proposed I would expect that the lighting can be designed to meet both limits.
- j) From Table E24.6.1.5 (pre-curfew) and E24.6.6 (curfew) the luminous intensity (glare) limits at a window applicable to this application are:

Time	Lighting category 2 Coastal - General Coastal Marine Zone	Lighting category 4 Business - City Centre Zone
Pre-curfew	7,500 candela	25,000 candela
Curfew	500 candela	2,500 candela

- k) From E24.6.1(9) the average surface luminance (brightness) limits for an intentionally artificially lit building façade applicable to this application are:

Lighting category 2 Coastal - General Coastal Marine Zone	Lighting category 4 Business - City Centre Zone
5 cd/m ²	25 cd/m ²

- l) It is also noted that the applicable assessment criteria for Council when assessing a restricted discretionary activity resource consent application are set out in E24.8.2 as follows:

(1) For traffic safety:

(a) The extent to which any artificial lighting will adversely affect traffic safety;

(2) For the effects of artificial lighting and glare on amenity values:

- (a) Whether the number, placement, design, height, colour, orientation and screening of light fittings and light support structures minimises light spill, glare and loss of night time viewing;
- (b) The extent to which the amount of light falling beyond the site during the hours of darkness is minimised to control effects on indoor amenity values and sleep quality; and
- (c) Whether the artificial lighting is necessary, suitably designed and adequately protects the amenity values of the surrounding environment.

3.0 Light Sensitive Locations

3.1 In **Figure 1** below I have identified the location of lawful established dwellings (via orange highlights and noted each with the associated hotel or apartment building name) that I consider to be sensitive to light effects from the proposal and these have been considered in my assessments.



Figure 1 – Light sensitive locations

4.0 Review of Application

- 4.1 I carried out a review of the applicant's technical reports to identify relevant discussion of potential lighting effects. The application documents I identified for review and have reviewed included the following:
- a. America's Cup - Wynyard Hobson - 1. Application for Resource Consent
 - b. America's Cup - Wynyard Hobson - 4. Assessment of Environmental Effects (AEE)
 - c. America's Cup - Wynyard Hobson - 7. Proposed Consent Conditions (13 April 2018)
 - d. America's Cup - Wynyard Hobson - 9. Physical Infrastructure Technical Report
 - e. America's Cup - Wynyard Hobson - 11. Landscape and Visual Assessment
 - f. America's Cup - Wynyard Hobson - 12. Urban Design Report
 - g. America's Cup - Wynyard Hobson - 17. Coastal Environmental Effects
 - h. America's Cup - Wynyard Hobson - 19. Navigational Safety and Utility
 - i. America's Cup - Wynyard Hobson - 28. Stormwater and Services Technical Report
 - j. America's Cup - Wynyard Hobson – DS4a. Architectural Drawing Set [Part B].
- 4.2 I record that no specific lighting design has been provided by the applicant.

5.0 Application Documentation Review Comments

- 5.1 In this section of my report, I provide comments from my review of the application documents listed above, with the exception of Application Document 7 (the Proposed Consent Conditions), which I address in Section 7.0 of my Report.

America's Cup - Wynyard Hobson - 1. Application for Resource Consent

- 5.2 The application notes that lighting and signage will be included in the development.

America's Cup - Wynyard Hobson - 4. AEE

- 5.3 Content in this AEE that is identical to content I have commented on in my review of the application's specialist technical reports is not repeated here.
- 5.4 Pages 91-92 and 116 of the AEE confirm that signage is an integral component for the America's Cup bases, but a detailed proposal for the comprehensive development signage required has yet to be developed, and it will potentially utilise projection and light effects. I have recommended a condition of consent to address this (see paragraph 7.5 below).

- 5.5 Section 10.14 of the AEE, at page 183, addresses lighting and states that any light spill from construction lighting to the Princes Wharf apartments will be less than 10 lux and will comply with the AUP. A similar statement is included at page 236 of the AEE. I recommend a number of amendments to the applicant's proposed condition 113, which concerns the contents of the Construction Lighting Management Plan in section 7.0 below, including a change to address this issue.
- 5.6 Section 10.14 of the AEE, also provides an outline of the proposed event lighting and proposes that such lighting will be covered in a Light Management Plan. I agree that an event Lighting Management Plan is required and that a condition of consent should be proposed to require this. I have proposed some improvements to the applicant's proposed condition 183(e) in Section 7.0 below.

America's Cup - Wynyard Hobson - 9. Physical Infrastructure Technical Report

- 5.7 Section 3.6.2.3 of this report (on page 24) describes "*Lighting poles at a height of eight metres with zero tilt luminaires, similar to the existing lighting on Halsey Street Extension and Hobson Wharves*" and states that these "*will be situated along the length of the new wharves at a spacing to provide a safe illumination level across these structures*".
- 5.8 I consider the proposed lighting to be appropriate.
- 5.9 Section 5.4 of this report (on page 36), relating to Construction Lighting, outlines that construction lighting will be provided to facilitate 24 hour, 6-7 day per week construction. It states that:
- Due to the relatively constrained site working areas and amount of plant likely to be in operation, it is recommended that the illumination level for safe working conditions be increased to 100-150 lux within the construction site(s). This illumination level is similar to that provided for football/rugby training ground on Auckland Council Parks.
- 5.10 I consider the proposed lighting levels to be appropriate.
- 5.11 Also, construction lighting is described as being provided by temporary 12-18m high lighting poles with zero tilt floodlights. I consider the proposed height of the lighting poles to be appropriate, with the pole height required to mitigate glare and spill light.
- 5.12 Section 5.4 Construction Lighting, also states that (pages 36-37):
- Preliminary estimates of spill light towards the Princes Wharf hotel boundary indicate that the initial vertical and horizontal illuminance will be less than 10 Lux, estimates also indicate that the spill at the windows of the Princes wharf apartments satisfy the conditions as described in E24.6.1.6a and b.
- 5.13 Compliance with the spill light limits of AUP E24.6.1(6)(b) should be a condition, and I have recommended an amendment to condition 113 to address this (see Section 7.0 below). Based on the type of lighting proposed I would expect that the lighting can be designed to meet both limits.
- 5.14 In addition, section 5.4 Construction Lighting, states that (page 37):
- Overall, construction lighting will be installed and operated in accordance with the Construction Environmental Management Plan lighting controls to reduce glare and

spill. The effects of construction lighting on non-maritime users are therefore considered to be minor.

- 5.15 Reference should be to the “Construction Lighting Management Plan (CLMP)” rather than “Construction Environmental Management Plan” as this aligns with the applicant’s draft conditions of consent. Again, I agree that a CLMP is required. Refer to Section 7.0 for my proposed amendments to the applicant’s CLMP condition 113.

America's Cup - Wynyard Hobson - 11. Landscape and Visual Assessment

- 5.16 Section 6.6.3 Lighting in this report, provides a description of the proposed lighting poles with street light luminaires (zero tilt), at a height of approximately 8m (at pages 31 and 32). It also provides an outline of assumed event lighting based on 2018 Volvo Ocean stop over. No comment is provided on any effects associated with lighting, and it is noted that Event lighting details are yet to be developed.

America's Cup - Wynyard Hobson - 12. Urban Design Report

- 5.17 Pages 50, 59, 69, 70, 74, and 77 of this report provide comment on the urban design considerations for the proposed lighting.

America's Cup - Wynyard Hobson - 17. Coastal Environmental Effects

- 5.18 Section 6.13 Lighting, states (at page 59) that “no adverse effects of additional lighting on ecological resources in Freemans Bay are anticipated”. I concur with this statement.

America's Cup - Wynyard Hobson - 19. Navigational Safety and Utility

- 5.19 Section 5.1.16 of this report, Aids to Navigation, includes comment at page 31 that modification to some existing navigation lights will be required and that navigation lights will be required on the ends of each breakwater. It states:

All such changes will be developed in full consultation with and will require the approval of, the Harbour Master.

- 5.20 Based on the nature of navigation lights and the fact that they are to be to subject to the Harbour Master’s approval I would not expect these proposed modification and addition of navigation lights to create any obtrusive effects to surrounding dwellings or motorists using SH1.

- 5.21 Section 7.9 of this report, Construction Activities, third paragraph on page 36, proposes that the Harbour Master will require a Maritime Safety Management Plan (MSMP) that includes requirements such as: the showing of day mark, placement of buoys and temporary beacon lights, the shielding or use of other means to prevent glare and reflection or confusion with navigation lights from construction related lights and area flood lighting, as well as operational communications. I understand that Christiaan Moss, the Deputy Harbourmaster, has recommended a condition addressing the requirement for a MSMP in his report. I expect the recommended MSMP to appropriately manage the identified lighting effects.

America's Cup - Wynyard Hobson - 28. Stormwater and Services Technical Report

5.22 Section 4.4.1 of this report, concerning BAU Lighting, provides an outline of 'business as usual' lighting consisting of 8m poles with zero tilt streetlight luminaires situated along the Hobson Wharf Extension to provide safe illumination level, similar to the existing lighting on Halsey Street Extension, Western Viaduct and Hobson Wharves (see page 22).

5.23 The approach to provision of lighting to the Syndicate Bases is stated as being similar to the above. The Report states:

Consideration of mounting zero tilt lights on the Base buildings would be of benefit.

I agree and consider that the use of zero tilt lights on the Base buildings should be a condition of consent. I have proposed a condition of consent to address this (see Section 7.0 below).

5.24 Section 4.4.3, Event Lighting state that (see pages 22 and 23):

The event details are yet to be fully developed at this stage of the project. However it is assumed that the event lighting will be similar in principle to that of the 2018 Volvo Ocean Stop Over. It is expected that America's Cup entertainment events will take place during the hours of 7am – 10pm (pre-curfew hours).

And further that:

The event lighting will be covered in a Lighting Management Plan as part of the Event Management Plan.

5.25 I concur with the proposed use of a Lighting Management Plan that addresses the items listed, as a means of managing any adverse effects of any event lighting and that proposed condition 183(e) is appropriate, subject to the amendments recommended in this report in Section 7.0 below.

5.26 Section 5.3.1.1, BAU Lighting, notes at pages 26 and 27 that with the proposed use of zero tilt luminaires and the fact that the lighting will be designed in accordance with AUP requirements, the effects of the proposed lighting can be expected to be less than minor. Use of zero tilt luminaires and compliance with AUP section E24 Lighting should be a condition of consent (and I have proposed an amendment to the conditions to require this).

5.27 Section 6 on page 28 relates to "Mitigation, Monitoring and Draft Conditions of Consent". I concur with the various recommendations relating to the "*Inclusion of event lighting in the Event Management Plan*", and note that these are reflected in condition 183(e). However, I recommend inclusion of a number of additional conditions of consent with respect to BAU lighting (see paragraph 7.0 below).

America's Cup - Wynyard Hobson – DS4a. Architectural Drawing Set [Part B]

5.28 The drawings indicate that the exterior cladding of the proposed Bases B through to G will have Danpalon transparent cladding randomised colour bands (although I note the flexibility potentially provided by condition 24). The translucent cladding material will glow at night when the interior lighting is on. The AUP has permitted activity standards

for façade brightness of intentionally artificially lit building façades (refer AUP E24.6.1(9)). The question is whether this translucent façade when lit by the internal lighting is considered to be an “intentionally artificially lit building façade” and therefore compliance with the limits of AUP E24.6.1(9) should be considered. The alternative is for this translucent cladding to be considered as glazing, in which case there are no applicable AUP standards. From a lighting obtrusive effects perspective, I consider the proposed translucent cladding to be glazing, and therefore there are no applicable AUP standards to be considered.

6.0 Submissions

6.1 I carried out a review of submissions and provide the following comments on submissions that address the proposed lighting.

Submission by The Point Body Corporate, dated 28 May 2018

6.2 At paragraph 31 a concern is expressed about adverse effects from event lighting. The submitter states that it *“is appropriate that they be included as a stakeholder and be consulted with on the Event Management Plan”*.

6.3 I understand that Nicola Broadbent, the Council’s planner, recommends that this submitter (and a number of others) be added to the list of stakeholders in condition 36, who would be consulted on the EMP.

Submission by Barry Jeffery via Email dated 23 May 2018

6.4 The submitter proposes consideration of night strobe lit flags atop VEC building. I do not support this proposal based on the upward projection of light required and the obtrusive nature of flashing/strobing light.

7.0 Conditions

7.1 In this section of my report I recommend a number of amendments to the applicant’s proposed conditions, or new conditions, to address the matters discussed above in Section 5.0.

Construction Lighting Management Plan

7.2 The applicant’s proposed conditions 111 to 113 relate to the preparation of a Construction Lighting Management Plan (**CLMP**).

7.3 I recommend the following amendments to the applicant’s proposed condition 113, concerning the contents of the CLMP:

The CLMP shall include:

- a) Construction lighting poles and luminaires that project light forward and sideways (i.e., zero tilt); ~~and~~

- b) No lights being directed towards the night sky;
- c) A map of the surrounding light sensitive areas;
- d) Design to comply with the E24.6.1 General Standards in the AUP:OP, including rule E24.6.1(6)(b);
- e) Planning and setup measures to minimise spill light and glare;
- f) Other measures such as construction vehicle headlight sweep, construction vehicle warning lights/beacons, construction vessel lights.

Event Lighting Management Plan

7.4 Proposed conditions 181 and 183(e) concern the lighting related effects of the Event. Condition 183(e) requires the preparation of a Lighting Management Plan (**LMP**), as a component of the overarching Event Management Plan. I am content with these proposed conditions, as drafted, save that I recommend the inclusion of the following items as matters to be addressed in the LMP:

- e) A **Lighting Management Plan** (LMP) that shall include:
 - (i) A map of surrounding light sensitive areas;
 - (ii) Design to comply with the E24.6.1 General Standards in the AUP:OP, including rule E24.6.1(6)(b) AUP:OP requirements for pre curfew and curfew levels for spill light and glare and general lighting planning rules;
 - (iii) Design to be in accordance with CPTED principles ~~and consistent with E24.6.1 General Standards in the AUP:OP Rules as applicable;~~
 - (iv) Layout and luminaire type of temporary lighting;
 - (v) Location and orientation of big screens, feature lighting and lighting for hospitality features;
 - (vi) Outside broadcast area location; and
 - (vii) 10pm shut down time for temporary additional event lighting.

Additional Conditions

Illuminated Signage

7.5 I recommend that the following additional condition be imposed to address illuminated signage:

The following requirements shall apply to any signage involving internally illuminated signs, LED digital signs, light projection and light effects (in addition to any other requirements in the conditions of these consents):

- (a) A lighting design shall be submitted to the Team Leader Compliance Monitoring – Central for approval; and
- (b) The lighting design shall be accompanied by a lighting assessment by a suitably qualified lighting specialist.

BAU Lighting

7.6 I recommend the following further conditions to address 'business as usual' lighting:

'Business as usual' lighting (i.e. other than construction or event lighting) shall comply with the following requirements:

- (a) Exterior lighting on new bases shall be zero tilt luminaires with no light projected above the horizontal;
- (b) Pole mounted lighting is to have zero tilt luminaires with no light projected above the horizontal;
- (c) Design of lighting is to be in accordance with CPTED principles; and
- (d) Lighting must comply with the E24.6.1 General Standards in the AUP:OP, including rule E24.6.1(6)(b).

8.0 Conclusions

8.1 My conclusions are:

- a) No specific lighting design has been provided and therefore no light effects assessment calculations have been provided. Therefore, the control of adverse effects from BAU, base building, construction and event lighting will be reliant on the final lighting designs complying with the AUP E24 Lighting permitted activity standards including compliance with E24.6.1(6)(b).
- b) While the absence of a detailed lighting design to review is not ideal, I am confident that lighting solutions meeting the requirements of the AUP and the conditions proposed above can be provided.
- c) I agree with the applicant's Coastal Environmental Effects statement that no adverse effects on ecological resources in Freemans Bay are anticipated from the proposed lighting.
- d) It is my expert opinion that provided the final design and installation of the proposed lighting complies with the relevant conditions of consent (amended in accordance with my recommendations above), the proposal's effects will be less than minor.

Yours faithfully

Stephenson &Turner NZ Limited



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STEPHENSON & TURNER ENGINEERS

APPENDIX P

CHRISTIAAN MOSS

NAVIGATION REPORT

Memorandum

To: Nicola Broadbent, Team Leader
North West Resource Consenting Unit, Auckland Council

From: Christiaan Moss, Deputy Harbourmaster

Date: 15 June 2018

Subject: Navigation Safety, Wynyard/Hobson – America’s Cup

1. OVERVIEW

1.1 The Harbourmaster is responsible for navigation safety within the Auckland Region. Under that mandate, this report provides a peer review of the navigational safety requirements for the Wynyard/Hobson resource consent application.

1.2 In undertaking this peer review, the following documents have been reviewed:

- Section 10.10 Navigation and Safety, of the America’s Cup Wynyard Hobson Assessment of Environmental Effects (**AEE**) dated 13 April 2018 (Application Document 4);
- The Applicant’s Proposed Conditions of Consent (Application Document 7);
- The Navigational Safety and Utility Report prepared by Navigatus Consulting dated 12 April 2018 (**Navigatus Report**) (Application Document 19);
- The Marine Traffic Survey prepared by Beca Ltd (Application Document 20);
- The DS5 Concept Engineering Drawings, and in particular the drawing entitled “Marine Works Civil Drawing 1 Overall General Arrangement Layout Plan” (drawing number 3233847-CA-4101 Rev B, at DS5.1) (the **Layout Plan**).

1.3 In reviewing the above documents, I have had regard to:

- The Auckland Council Navigation and Safety Bylaw 2014 (**Navigation and Safety Bylaw**);
- The New Zealand Port and Harbour Marine Safety Code (**Marine Safety Code**);
- Relevant provisions of the Maritime Transport Act 1994 (**MTA**).

1.4 In accordance with the Navigation and Safety Bylaw, the proposed Wynyard/Hobson site must comply with the following clauses and controls where applicable:

- Clause 29(1) (Navigation Aids), which states that the “Harbourmaster may require a person to erect or maintain a navigation aid”;

- Clause 29(2), which provides that a “person must not erect or alter a navigation aid without the prior written approval of the Harbourmaster and Director”;
- Clause 36(1)(a) concerning prohibited anchorage areas¹, and in this case the Hauraki Gulf prohibited anchorage area depicted in Map 3.0;
- Clause 36(1)(b) concerning restricted anchorage areas², and in this case the Waitemata Harbour restricted anchorage area depicted in Map 3.4.

1.5 The Marine Safety Code is a code aimed at promoting good practice in the conduct of safe marine operations in ports and harbours. The primary objective of the Marine Safety Code is to:³

... ensure the safe management of ships navigating in New Zealand ports and harbours, including the prevention of:

- injury to people or loss of life; and
- damage to the environment, particularly to the marine environment, but also to property.

1.6 The Council has the ability to make navigation bylaws under Section 33M of the MTA. In addition, section 33E of the MTA sets out the functions of Harbourmasters and provides that a Harbourmaster may exercise the powers and perform the duties conferred by the MTA or any other enactment for the purpose of ensuring maritime safety in relation to the ports, harbours, or waters for which he or she has been appointed as a Harbourmaster by the regional council.

2. WYNYARD/HOBSON – WYNYARD BASIN DEVELOPMENT

2.1 **Figure 1** below is a reproduction of the Layout Plan in the Wynyard/Hobson application. When reviewing this plan, the area can be broken down into three areas of navigational interest to the Harbourmaster. Those areas are:

- (a) Princes Wharf west;

¹ A person must not, except in an emergency, anchor or moor a vessel within a prohibited anchorage under the Bylaw without the prior approval of the Harbourmaster.

² A person must not, except in an emergency, anchor a vessel within a restricted anchorage under the Bylaw, unless the vessel is kept ready to make immediate departure and an anchor watch on board the vessel is maintained at all times.

³ Maritime New Zealand, 2016 Edition, page 13.

Memorandum

- (b) The Viaduct entrance fairway; and
- (c) Wynyard Quarter (referred to in the Navigatus Report as the “Wynyard Wharf South Waterspace”).

Princes Wharf West

- 2.2 The Princes Wharf west location current accommodates a mixture of Maritime Museum vessels and commercial vessels of various sizes, including the Spirit of Adventure tall ship.
- 2.3 The Layout Plan (**figure 1**) indicates that the Hobson Wharf breakwater will extend 35m into the Princes Wharf west fairway. The remaining fairway width distance is in excess of 60m.
- 2.4 I am satisfied that vessel-manoeuving area required for the Princes Wharf west location provides sufficient room for vessels to manoeuver and berth safely.

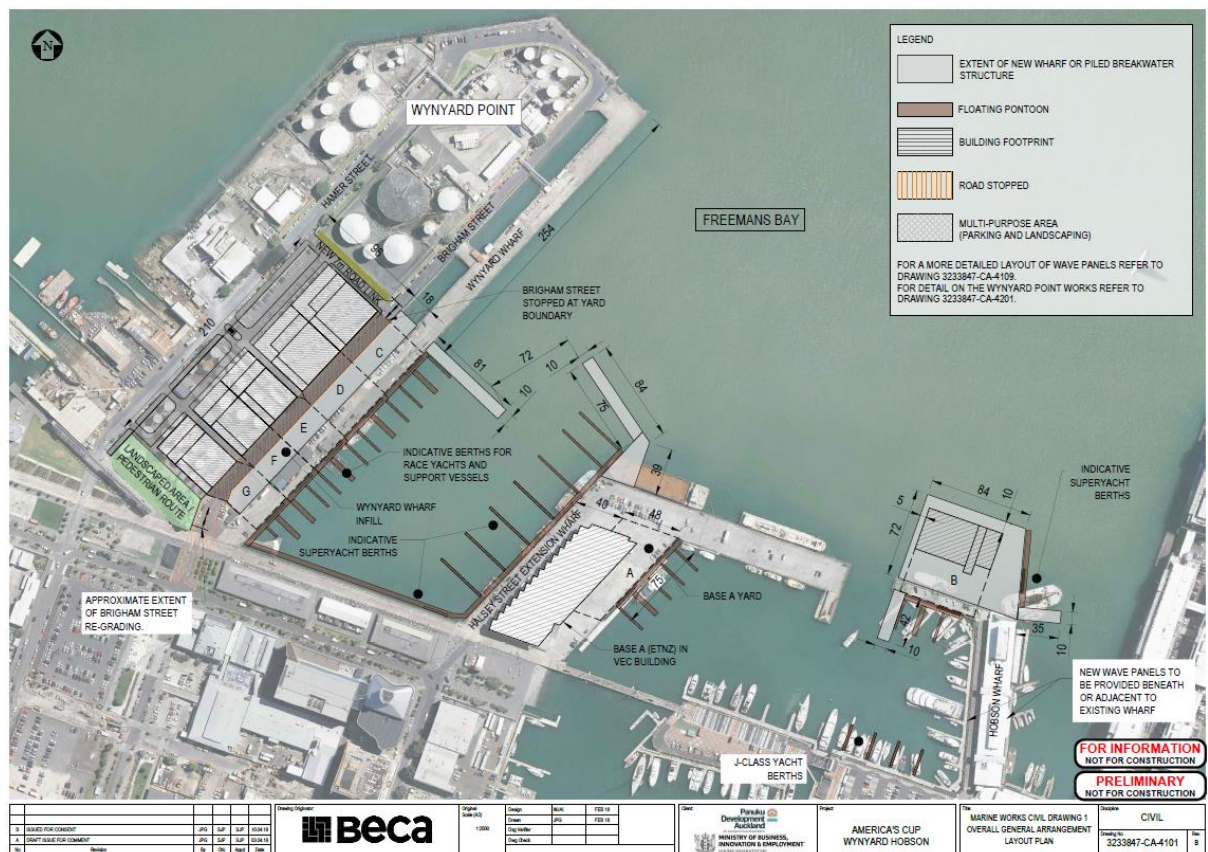


Figure 1. Reproduction of the Layout Plan (from DS5.1)

Viaduct Fairway Entrance

- 2.5 The Viaduct fairway entrance width remains at 40m. This width is sufficient for the vessels currently using the Viaduct basin. Vessels report into Viaduct control on VHF channel 73 before entering the Viaduct basin. With the inclusion of a large structure on the proposed Hobson extension, I am satisfied that vessels currently using the Viaduct basin can continue to do so in a safe manner.

Wynyard Quarter

- 2.6 The Wynyard Quarter location will primarily affect the berthing operation of tankers on Wynyard wharf. As per the Navigatus Report the available berthing area will be reduced, as well as the berthing window (what time you can berth). The Navigatus Report suggests 1 hour either side of the tide, equating to “tankers having to restrict berthing to a total of 8 hours within 24”⁴. This methodology is not uncommon, as during these times the vessel will experience minimal current effect while berthing. In addition to this, Ports of Auckland Limited (who supply the pilots) are satisfied with this proposal.
- 2.7 The berthing of superyachts or other vessels within the proposed Wynyard Quarter breakwaters should be done with due consideration of the appropriate mooring configuration while alongside. Sufficient fairway clearance is required at all times, and no mooring lines or anchors are to be placed in such a way that they may impede vessels while transiting this breakwater.
- 2.8 Dependant on the final configuration of superyacht berths within the breakwater, the Harbourmaster reserves the right to impose maximum size limits for vessels berthing, and/or other conditions such as ‘day light transit only’.
- 2.9 If it is necessary to impose formal restrictions (e.g. as to the maximum size limits for vessels berthing), the Harbourmaster will typically do this by making a direction under section 33F(1)(c) of the Maritime Transport Act 1994. See, for example, current Harbourmaster’s Direction 2-16 concerning “Vessel Operating Requirements”⁵, which includes directions for vessels within Viaduct Harbour and within the Westhaven fairway.
- 2.10 With regard to the Wynyard Quarter location, section 5.1.16 of the Navigatus Report states:

⁴ Navigatus Report, section 7.4, page 35.

⁵ <https://at.govt.nz/media/1973137/harbourmaster-direction-2-16-vessel-operating-requirements.pdf>

The Proposal will require modification to some existing aids to navigation (buoys, posts, navigation lights etc. It is likely the entrance fairway will require marking with buoys similar to those currently in place and that navigation lights will be required on the ends of each breakwater. All such changes will be developed in full consultation with, and will require the approval of, the Harbour Master.

- 2.11 New navigation marks may need to be installed, or existing aids re-aligned to ensure they are in the correct position. In section 4 below, I propose a condition of consent to address this.
- 2.12 All vessels over 500 gross tonnes (which would include most superyachts over 50m length) operating in this area are subject to Maritime New Zealand Pilotage rules (Maritime Rules, Part 90). Applicable vessels are required to have a licensed pilot on board whilst underway. The pilots, prior to entering the Wynyard Basin area, would conduct their own risk assessments to ascertain if they would be prepared to take vessels into the berth.

3 SUBMISSIONS

Submission by Spirit of Adventure Trust (Submission #2)

- 3.1 The Spirit of Adventure Trust (**Trust**) has made a submission concerning “access to and from the West Side of Princes Wharf”. The Trust wishes “to ensure the arrival, berthing and departure of the Spirit of New Zealand is not affected by the proposed works and event”.
- 3.2 The establishment of a Navigation Safety Management Plan (**NSMP**) for on water construction activities (which I address in more detail in section 4 below) will help address the Trust’s concerns. The NSMP will include information on how access will be maintained for vessels using berthing facilities within the construction zone.
- 3.3 The Harbourmaster does not envisage the Trust being impacted during the running of the America’s Cup event. However, it is recognised that there will be periods of high density vessel traffic that may impede vessel operations on some days during the event. It should be noted that vessel traffic density (which is unpredictable) is beyond the control of the Harbourmaster.

Submission by Lance Wiggs (Submission #11)

- 3.4 Lance Wiggs has made a submission concerning the traffic management aspects of the AC36 proposal. One aspect of Mr Wiggs’ submission includes discussion around the

operation of the lifting bridge on Te Wero Island. More specifically, the submission refers to the “re-prioritisation of Te Wero bridge to pedestrians rather than boats”.

- 3.5 The operation of the Te Wero Island lifting Bridge does not fall under the remit of the Harbourmaster (it is operated by Panuku), however I can confirm that:
- (a) The current operational bridge procedures (timings) have caused no concerns in relation to navigation safety; and
 - (b) The Harbourmaster has received no correspondence to the contrary.

Submission by SeaLink and Westhaven Marina Users Association (Submissions #47 & #66)

- 3.6 Both the SeaLink and the Westhaven Marina Users Association submissions discuss the same issue concerning navigation safety. Both parties are concerned with the potential impact on navigation safety, if the SeaLink ferries and the fishing fleet are relocated to a site within the Westhaven fairway. The Harbourmaster’s office is aware that discussions are taking place regarding the potential relocation of the SeaLink ferries and fishing fleet. However, no finalised plans have been presented to the Harbourmaster office.
- 3.7 The Harbourmaster’s office does recognise that if plans do eventuate for the relocation of the SeaLink ferries and the fishing fleet to the Westhaven fairway, careful planning and consideration will need to be given to the impact on navigation safety, as there will be an increase in traffic density within the fairway.

4 **CONDITIONS OF CONSENT**

- 4.1 A number of proposed conditions in Application Document 7 relate to maritime safety and navigation, or refer to the Harbourmaster:
- Proposed conditions 46 to 50 (including the advice note after condition 50) relating to coastal notifications and documentation; and
 - Proposed condition 143 requiring a report to the Harbourmaster or Auckland Council’s 24 hour water pollution hotline in the event of certain spills.
- 4.2 I am satisfied with the proposed conditions, subject to my comments and suggested changes below.

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- 4.3 As noted above, I recommend that a condition be imposed requiring the consent holder to establish a Navigation Safety Management Plan (**NSMP**) for on-water construction activities. The NSMP shall include information/procedures on how access shall be maintained for vessels using berthing facilities within the construction zone. I set out the wording for a possible condition below:

The Consent Holder shall establish a Navigation Safety Management Plan for on-water construction activities (**NSMP**). The NSMP shall include information/procedures on how navigation access shall be maintained for vessels using berthing facilities within the construction area, including the maintenance of navigation access to and from the Viaduct Harbour. The NSMP shall also include requirements such as: the showing of day mark; placement of buoys and temporary beacon lights; the shielding or use of other means to prevent glare and reflection or confusion with navigation lights from construction related lights and area flood lighting; as well as operational communications. The NSMP shall be prepared in consultation with the Harbourmaster, and a draft NSMP shall be submitted to the Team Leader Central Monitoring for approval at least 20 working days prior to the Commencement of Construction.

- 4.4 I consider the NSMP should be included as one of the documents listed in condition 31, relating to the Construction Environmental Management Plan, and that condition 35(b) – relating to the “Site Management” component of the CEMP – be amended to require the following to be addressed:

- b) The extent to which barges and other machinery are expected to operate within the affected water space and the measures that will minimise the disruption to other craft and users, including ensuring navigation access to and from the Viaduct Harbour is maintained at all times;

- 4.5 I also recommend the following minor amendment to condition 46 (new text underlined):

Prior to the date of Commencement of Construction, the Consent Holder shall consult the Auckland Harbourmaster to identify the appropriate location, number and type of navigational aids and lighting required for the proposal (including for the temporary and/or permanent structures in the CMA). The navigational aids and lighting, as approved by the Harbourmaster, will be provided and maintained by the Consent Holder at its cost, and in accordance with Maritime New Zealand guidelines, and the Port and Harbour Marine Safety Code.

5 CONCLUSION

- 5.1 The applicant has addressed the primary navigation safety concerns for the Wynyard/Hobson proposal. As noted in this peer review, any navigational safety concerns can be appropriately managed if the applicant adheres to the proposed

Memorandum

conditions of consent as set out at Section 4 above. I am in general agreement with the summary of effects on existing maritime users in section 8 of the Navigatus Report.

APPENDIX Q

FIONA HARTE

REGIONAL EARTHWORKS REPORT

Technical Memo – Specialist Unit

To: Nicola Broadbent – Team Leader, North West Resource Consenting Unit, Auckland Council

From: Fiona Harte – Specialist (Earth and Stream Works), Specialist Unit, Auckland Council

Date: 13 June 2018

1.0 APPLICATION DESCRIPTION

Application and property details

Applicant's Name: Panuku Development Auckland

Application numbers: LUC60318373 (BUN60318372)

Activity types: Earthworks

Purpose description: Earthworks to facilitate the construction of infrastructure associated with the America's Cup 36.

Site addresses: 11-99 Brigham Street, Brigham Street (legal road), Hamer Street (legal road), Jellicoe Street (legal road), 1 Brigham Street, 9 Brigham Street, 8-34 Brigham Street / 8 Hamer Street, 36-54 Brigham Street, 51E Brigham Street, 58 Brigham Street, 90 Brigham Street, 49-63 Jellicoe Street, 65-75 Jellicoe Street / 2-8, 12 Hamer Street, 37-55 Madden Street, North Wharf Section 5, Section 3 and Section 1, 141-177 Halsey Street, 155-161 Halsey Street, Te Wero Island, 220 Quay Street, 149-159 & 161-173 Quay Street, 149 Quay Street.

2.0 PROPOSAL, SITE AND LOCALITY DESCRIPTION

2.1 Proposal relevant to this consent only

2.2 This report provides an earthworks review / assessment of the America's Cup resource consent application, which I refer to in this memo as the "**AC36 Application**" or simply the "**application**". It is noted that the specific contaminated land aspects of the proposal that are closely related to the earthworks are addressed in separate reports from Rob van de Munckhof and Marija Jukic for the Council.

2.3 The applicant is seeking resource consent for earthworks in relation to the construction of infrastructure associated with the America's Cup 36 event. A full description of the proposal is provided in the Assessment of Environmental Effects (**AEE**) for the application prepared by UNIO Environmental Limited (**UNIO**) and dated 13 April 2018.

2.4 The following application documents are particularly relevant to this report and the earthworks consent required:

(a) Reports:

- *'America's Cup Wynyard Hobson Application for Resource Consent: Assessment of Environmental Effects'*, prepared by UNIO and dated 13 April 2018 (**AEE**) (Application Document 4);
- The applicant's Proposed Conditions of Consent (Application Document 7);
- *'America's Cup Physical Infrastructure Technical Report for Resource Consent Application, Wynyard Hobson'*, prepared by Beca Ltd and dated 11 April 2018 (the **Infrastructure Report**, Application Document 9);
- *'Outline Erosion and Sediment Control Plan'*, prepared by Beca Ltd and dated 11 April 2018 (Appendix C to the Infrastructure Report);
- *'America's Cup Preliminary Site Investigation (Contamination) for Resource Consent Application, Wynyard Hobson'*, prepared by Beca Ltd and dated 11 April 2018 (the **PSI Report**, Application Document 27);
- A draft *'Remediation Action Plan'*, prepared by Beca Ltd and dated April 2018 (Appendix F to the PSI Report).

(b) Plans:

- *'America's Cup, Engineering Concept Drawings for Resource Consent Application, Wynyard Hobson'*, Application Documents DS5.1, DS5.2 and DS5.3, drawing package prepared by Beca Ltd and dated April 2018.

2.2 In brief:

- (a) Earthworks are required over approximately 25,400m².¹
- (b) Earthworks will involve excavations for ground improvements and construction of new services, piling, creation of building platforms and re-paving.

2.5 Site Description

2.6 The applicant provides a description of the site in section 8 of the AEE. The proposed earthworks are to be undertaken in Wynyard Quarter, Auckland City Centre. The area is flat and almost completely impervious apart from areas which have been recently upgraded to create public

¹ Area of earthworks as provided in the Outline Erosion and Sediment Control Plan.

space and infrastructure upgrades such as rain gardens. The area is well known for soil contamination due to historical land use and reclamation of the coastal marine area. The immediate receiving environment is the adjacent coastal marine area (CMA) and the existing stormwater network. The stormwater network discharges directly into the CMA being the Waitemata Harbour and ultimately the Hauraki Gulf.

3.0 REASON FOR CONSENT – EARTHWORKS

- 3.1 Regional land use consent for earthworks is required under the provisions of Chapter E.11 Land Disturbance – Regional, of the Auckland Unitary Plan (Operative in Part) (**AUP**). Activity (A9) in Activity table E.11.4.1 provides that general earthworks in the City Centre Zone and on roads, greater than 2,500m² within the Sediment Control Protection Area² are to be assessed as a restricted discretionary activity. The AC36 Application requires earthworks over an area of 25,400m². As such, the application requires regional consent with the proposed earthworks assessed as **restricted discretionary activity**.

4.0 TECHNICAL ASSESSMENT OF EFFECTS

Assessment of effects on the environment

- 4.1 The applicant identifies and assesses the effects of the proposed earthworks activities on the environment that are likely to arise and any mitigating factors in section 10.17 of the AEE (section entitled “Land Disturbance & Contamination Effects”). The potential adverse environmental effects of the proposed earthworks activities are in relation to potential sediment discharges.

Earthworks

- 4.2 In order to manage the effects related to the potential sediment discharges associated with the earthworks, the applicant has provided an Infrastructure Report including an “Outline Erosion and Sediment Control Plan” (**Outline ESCP**) at Appendix C, and a draft “Remediation Action Plan” (**draft RAP**) as Appendix F to the PSI Report. The applicant’s reports propose a variety of controls to be established across the site to minimise the potential for erosion to occur and for sediment to be discharged during the earthworks operation. The applicant has also proposed to undertake the earthworks in accordance with Auckland Council’s Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region, June 2016, Guideline Document 2016/005 (**GD05**).
- 4.3 The Outline ESCP in conjunction with the draft RAP provides an overview of the erosion and sediment controls to be used during the proposed earthworks. The applicant has not provided a set of detailed erosion and sediment control drawings to complement the plans and has advised that detailed drawings in the form of final site specific Erosion and Sediment Control Plans, showing the location and specifications of controls for the respective earthworks areas, will be submitted by the nominated earthworks contractor following issue of consents and prior to earthworks commencing. Due to the contaminated nature of soils

² With reference to Note 1 below E11.4.1 Activity table in the AUP, the site is located in a Sediment Control Protection Area being within 100m landward of the coastal marine area.

within the proposed earthworks area, standard control of potentially sediment laden water prior to its discharge will not suffice when dealing with contaminants such as hydrocarbons. The applicant has proposed where possible to allow dirty water to infiltrate back into the excavation area or be pumped to a dedicated sump within the site where it will be managed as discussed below. Where this cannot be achieved, dewatering to the sewer has been outlined as a possibility in the Outline ESCP and the draft RAP. Retention devices (i.e., a dedicated sump, treatment tank or similar) and flocculation of these devices has also been proposed as a possibility to reduce total suspended solids (TSS) to meet the relevant water quality standards to discharge to the sewer network. The applicant has proposed that specific details of the chosen dewatering and treatment methodology be included in the contractor's site specific Erosion and Sediment Control Plans. As these details (including copies of any relevant trade waste permits) are required prior to earthworks commencing, a requirement for final details regarding dewatering and water treatment has been included below. This is to ensure the final methodology is appropriate and consistent with the options noted in the Outline ESCP and draft RAP. If trade waste permits cannot be obtained to discharge to the sewer, intensive onsite treatment of runoff generated during excavations will need to be undertaken and it is expected that details of this treatment would be included in the site specific erosion and sediment control plans.

- 4.4 It is recommended that a final set of erosion and sediment control plans (including site drawings) be provided to Council for approval prior to earthworks commencing. This is to ensure that the plans detail the specifications and location of controls to be used and will also ensure that the plan has been drafted in conjunction with the final Remediation Action Plan for contaminated soil to avoid discrepancies. Further recommendations within this assessment can also be incorporated into the finalised plans for completeness.
- 4.5 In the Outline ESCP, stabilised construction entrances are proposed to ensure the entrances to the site at Hamer Street and Brigham Street, reducing the risk of construction vehicles tracking sediment out onto the public roads. The applicant identifies that wheel washes may be used at the stabilised construction entrances to further prevent tracking onto the public roads. The wheel washes are proposed to be drained or pumped to an approved sediment retention device or dewatering device and the applicant has proposed that details in this regard will be included in the contractor's site specific Erosion and Sediment Control Plans prior to earthworks commencing. Based on the nature and type of earthworks proposed, I consider this to be an acceptable method to minimise the potential sediment related effects of the earthworks.
- 4.6 Controlling the amount of clean water entering the site with clean water diversion bunds has also been proposed. This will ensure surface water is directed around the respective earthworks areas to prevent clean water from entering the area and contributing to the amount of water that needs to be treated on the site. The applicant has envisaged that the existing road kerb and gutter will act as clean water diversion for many of the required earthworks areas and that specific concrete/asphalt bunds will be required in some locations. Concrete and asphalt bunds are also proposed where conveyance of dirty water is proposed to ensure dirty water does not flow offsite and can be directed to the excavations

or dewatered to an approved treatment device.

- 4.7 The applicant has proposed to protect adjacent stormwater cesspits with geotextile filter cloth and silt socks. Generally speaking, contaminants bind to soil and the filtration provided by the cesspit protection may aid in reducing some contaminants from being discharged into the stormwater system, however, it is highlighted that this is a contingency measure only and that the focus should be on avoidance of sediment discharges, in particular to the reticulated system. In some scenarios, capping of the existing stormwater infrastructure may be more appropriate, especially where existing cesspits are located within the areas proposed to be excavated. It is recommended that any cesspits proposed to be protected or blocked off during the works be detailed in the finalised set of erosion and sediment control plans.
- 4.8 The need for stockpiling of soil has been identified within the Outline ESCP. Stockpiles are proposed to be covered with polythene and bunded to prevent ingress of rain water which could lead to erosion. The applicant has acknowledged that any proposed stockpile areas will be detailed in the contractor's site specific Erosion and Sediment Control Plan and will align with the procedures to be detailed in the final Remediation Action Plan. The draft RAP also notes that stockpiles are to be minimised and kept to a height no greater than 3m and shall not be placed in an area where runoff cannot be controlled. I concur with the applicant's proposed measures in this regard.
- 4.9 A seasonal restriction has not been recommended for the proposed earthworks due to the nature and type of earthworks to be undertaken. The sites are flat and although some of the proposed earthworks areas border the CMA, the earthworks to be undertaken are generally below ground excavations where dirty water has limited potential to flow directly to the CMA. Water can be contained within excavations where necessary and soak back into the ground or be pumped to a containment and treatment device before being discharged.
- 4.10 Progressive stabilisation is proposed to limit the exposed area of earthworks at any one time, however no detail has been provided in this regard. The applicant has stated that they will endeavour to complete the earthworks during the Auckland Council earthworks season (1st April – 30th April) however have also stated that works may occur outside of these months, during winter. Although a seasonal restriction has not been recommended (as above), it is recommended that details of staging and open areas be included in the Construction Environmental Management Plan for Council approval, prior to works commencing.
- 4.11 There are some works proposed at the interface between land and CMA. This includes ground improvement and shoreline remediation. The applicant has envisioned that the use of a coffer dam or temporary seawall will be used to retain any sediment laden runoff from land within a dry area. I concur with this approach and note that a coffer dam was successfully used to create a dry working area and avoid sediment discharges while constructing a stormwater outfall into the CMA off Halsey Street during the Halsey and Daldy Street upgrade and infrastructure works. It is recommended that final details and specifications of the cofferdam/ temporary seawall be provided for Council approval prior to

works commencing.

Conclusion

- 4.12 Although detailed erosion and sediment control drawings have not been provided with the application, the detail within the Outline ESCP and draft RAP is deemed sufficient to demonstrate that the applicant can appropriately manage the effects relating to potential sediment discharges resulting from the proposed earthworks.
- 4.13 For the proposed earthworks, provided the erosion and sediment controls are installed, constructed and maintained in accordance with the AEE, supporting documentation, the recommendations above and any additional requirements as deemed necessary by the guidance outlined in GD05, I consider the resulting effects on the environment from sediment discharges during the earthworks will be appropriately managed.
- 4.14 I accept the applicant’s proposed consent conditions in Application Document 7 relating to erosion and sediment control including the incorporation of finalised site-specific Erosion and Sediment Control Plans to be provided within an overarching Construction Environmental Management Plan. However, I have suggested some minor amendments to the applicant’s proposed wording. These have been incorporated into my recommendations in section 6 below.
- 4.15 **Affected parties**
- 4.16 Due to the nature of the effects considered in this memo, and for the reasons set out above, it is considered that no persons are adversely affected by the proposed earthworks activities.

5.0 STATUTORY CONSIDERATIONS

Objectives and Policies of the AUP

- 5.1 The relevant regional land disturbance objectives and policies are found in sections E11.2 and E11.3 of the AUP (Objectives 1-3 and Policies 1-8). These objectives and policies seek to ensure that earthworks are undertaken in a manner that protects people and the environment, does not exacerbate natural hazards and minimises sediment generation.

Other Statutory documents

- 5.2 The following statutory documents are considered relevant to the planner’s assessment of the application:

AUP Regional Policy Statement (AUP RPS)

- a. Chapter B7, Natural Resources of the AUP RPS is considered relevant as the objectives and policies in section B7.4 seek to ensure the progressive improvement of degraded coastal water, the quality of good or excellent coastal water is maintained and that any adverse effects are avoided, remedied or mitigated.

New Zealand Coastal Policy Statement 2010 (NZCPS)

- b. As the ultimate receiving environment of the proposed activity is the CMA and the Hauraki Gulf, the NZCPS is considered relevant to this application. The NZCPS seeks to protect the coastal environment and its special values and states that adverse effects of development should, as far as practicable, be avoided. As potential discharges from the development will ultimately reach the CMA, this statutory document is considered relevant.

Hauraki Gulf Marine Park Act (HGMPA) 2000

- c. As the ultimate receiving environment includes the Hauraki Gulf, the HGMPA is considered relevant to this application. The HGMPA seeks to recognise the national significance and life-supporting capacity of the Hauraki Gulf along with enhancing its natural, historic and physical resources where appropriate.

The assessment of objectives and policies is a matter for the Council's reporting planner, however I have read the provisions referred to above, and from a technical perspective, subject to implementation of the recommended conditions of consent, I consider the proposal to be consistent with them.

6.0 RECOMMENDATION AND CONDITIONS

Adequacy of information

- 6.1 The above assessment is based on the information submitted as part of the AC36 Application. It is considered that the information submitted is sufficient to enable the consideration of the above matters on an informed basis:
- a. The level of information provides a reasonable understanding of the nature and scope of the proposed activities as they relate to the relevant planning documents.
- b. The extent and scale of any potential adverse effects on the environment are able to be understood and assessed, however detail around the final works approach is incomplete and further recommendations have been made to bridge the information gaps.

Recommendation

- 6.2 The assessment in this memo does not identify any reasons to withhold consent, and the aspects of the proposal considered by this memo relating to earthworks could be granted consent, subject to recommended conditions, for the following reasons:
- a. The sensitivity of the receiving environment to the potential adverse effects of sediment discharge will not be compromised given the expected level of discharge, suitable control technologies and appropriate on-site management techniques.

- b. Subject to the imposition of suitable consent conditions, it is considered that the potential effects on the receiving environment will be appropriately managed.

Conditions

- 6.3 The applicant has provided a set of proposed conditions that are consistent with Council's standard earthworks conditions and have subsequently been incorporated into my recommended conditions below. However, some minor wording changes have been made to ensure the conditions are clear and enforceable and also to incorporate the addition of extra detail for the site-specific Erosion and Sediment Control Plan requirements. It is also considered appropriate to recommend consent conditions regarding progressive stabilisation during the works and permanent stabilisation of the site on completion or abandonment of works. The inclusion of these conditions is consistent with similar earthworks operations for which consent has been granted in the Auckland Region, and the wider site, and will ensure that the effects of the proposed earthworks will be appropriately managed.

General conditions

- 6.4 I recommended that a number of general conditions are imposed covering:
- Access to the site (I note that proposed condition 9 addresses this); and
 - Works undertaken in accordance with the plans (I note that proposed condition 13 requires the construction of physical infrastructure to be undertaken "in general accordance with the drawings provided in Document DS5". I suggest that this be amended to read "in accordance with". I understand that the Council's planner, Nicola Broadbent, is recommending a number of other improvements to this condition).

6.5 The following conditions or amendments to conditions are recommended:

Pre-commencement meeting

- 6.5 I recommend the following minor amendments to proposed condition 40:

Within 15 working days prior to Commencement of Construction, the Consent Holder shall arrange and conduct a pre-start meeting that:

- a) Is located on the subject site;*
- b) Is scheduled not less than five days before the anticipated Commencement of Construction;*
- c) Includes Council Compliance Monitoring representatives;*
- d) Includes representation from the contractors who will undertake the works; and*
- e) Includes an invitation to Mana Whenua.*

6.6 A minor amendment to the advice note following condition 44 is proposed as follows:

Advice Note: To arrange the pre-start meeting please contact the Team Leader – ~~Central Monitoring~~ Compliance Monitoring - Central to arrange this meeting on monitoring@aucklandcouncilgovt.nz, or 09 301 01 01. The conditions of consent should be discussed at this meeting. All additional information required by the Council should be provided no later than 2 days prior to the meeting.

Construction Environmental Management Plan

6.7 I recommend that condition 32(b) be amended as follows:

b) Construction works programming, including:

(i) an outline construction programme;

(ii) confirmation of the proposed staging and sequence of construction;

(iii) the open area of earthworks throughout construction;

(iv) the indicative timing of the submission of Site Specific Erosion and Sediment Control Plans to be submitted to Council for approval for each stage.

Erosion and Sediment Control

6.8 The applicant's proposed erosion and sediment control conditions are split between conditions 70 to 74 (controls generally) and conditions 75 to 84 (relating to erosion and sediment control plans). There is some repetition and overlap. In my amended set of conditions below, I have endeavoured to minimise repetition. Specifically:

- a. The applicant's proposed condition 70 is very similar to condition 83. I have merged the two conditions as a new condition 77.
- b. Similarly, condition 71 is very similar to condition 82, and I again recommend merging the two conditions as a new condition 76.
- c. I have relocated conditions 72 and 73 relating to inspection / maintenance and progressive stabilisation to conditions 78 and 79 respectively.
- d. I have relocated condition 74 (concerning notification of completion of earthworks).

6.9 The proposed set of re-organised and amended conditions is set out below:

Erosion and Sediment Control

~~70. During construction, the Consent Holder shall take all practicable measures to minimise erosion and prevent the discharge of sediment beyond the boundaries of the site of earthworks on land. This includes~~

~~deposition of mud or other debris on any road or footpath beyond the boundary of the site resulting from earthworks activity on the subject site. In the event that such deposition does occur, it shall immediately be removed.~~

~~71. Erosion and sediment control measures shall be implemented throughout land based Construction Works. They shall be constructed and maintained so as to operate and perform in accordance with Auckland Council GD2016/005: Erosion Sediment Control Guide for Land Disturbing Activities in the Auckland Region and any amendments to this document, except where a higher standard is detailed in the conditions below in which case the higher standard shall apply.~~

~~**Advice note:** Standard E26.7.5.1 of the Auckland Unitary Plan (Operative in Part) outlines the Accidental Discovery Rule in relation to Land Disturbance for infrastructure. Except as authorised by this consent and provided for in Condition 45, this standard must be complied with at all times, and should these requirements be unable to be complied with, a further resource consent may be required.~~

~~7570. At least 10 working days prior to Commencement of Construction for each stage of the Project, an **Site-Specific Erosion and Sediment Control Plan (SSESCP)**, shall be prepared by a suitably qualified person in general accordance with Auckland Council Guideline GD05, Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region. The SSESCP shall be submitted to the Team Leader Compliance Monitoring - Central for certification in terms of the matters in Condition 72. No earthworks activity on the subject site shall commence until written approval for the relevant SSESCP is received from the Team Leader Compliance Monitoring - Central.~~

~~7671. The purpose of the SSESCP is to set out the measures to be implemented during construction to minimise erosion and the discharge of sediment beyond the boundaries of the site.~~

~~7772. The SSESCPs shall include, but not be limited to, the following information as appropriate to the scale, location and type of earthworks:~~

- ~~a) Drawings showing location and quantities of earthworks and any mudcrete placement on land, contour information, catchment boundaries and erosion and sediment controls (location, dimensions, capacity);~~
- ~~b) Supporting calculations for erosion and sediment controls;~~
- ~~c) Catchment boundaries and contour information;~~
- ~~d) Reference to details of measures for contaminated land;~~
- ~~e) Details of construction methods to be employed, including timing and duration;~~

- f) *Dewatering and pumping methodology (if applicable);*
- g) *Details of the proposed water treatment measures, devices and appropriate trade waste permits (if applicable);*
- h) *Specific location of stockpile areas (if applicable);*
- i) *Detail of adjacent cesspits to be protected or capped (if applicable);*
- j) *Final details and specifications of the coffer dam or temporary seawall;*
- k) *A programme for managing exposed areas, including progressive stabilisation considerations;*
- l) *Roles and responsibilities under the SSESCP and identification of those holding roles including the suitably qualified person; and*
- m) *Monitoring, maintenance and record-keeping requirements.*

~~7873.~~ *Prior to any earthworks commencing, a certificate signed by an appropriately qualified and experienced person shall be submitted to the Team Leader Compliance Monitoring - Central, to certify that the erosion and sediment controls have been constructed in accordance with the approved SSESCPs erosion and sediment control plans and Auckland Council Guideline GD05.*

~~7974.~~ *Certified controls shall include but not be limited to the dewatering and treatment devices, stabilised construction entrances, cesspit protection and clean and dirty water diversions. The certification for these and any subsequent measures shall be supplied immediately upon completion of construction of those measures. Information supplied if applicable, shall include:*

- ~~a)~~ *Contributing catchment area;*
- b) *Treatment capabilities and capacities;*
- ~~c)~~ *Shape and capacity of structure (dimensions of structure);*
- ~~d)~~ *Position of inlets/outlets;*
- ~~e)~~ *Stabilisation of the structure; and*
- ~~f)~~ *A statement regarding the appropriateness of the device with respect to Auckland Council Guideline GD05.*

~~80.~~ *At least 10 working days prior to commencement of construction associated with each stage of the Project, the consent holder shall submit the ESCP to the Team Leader – Central Monitoring for certification in terms of the matters in Condition 77. No earthworks activity on the subject site shall commence until written certification for the relevant ESCP is received from the Team Leader – Central Monitoring.*

~~8175.~~ *The operational effectiveness and efficiency of all erosion and sediment control measures required by the ESCP SSESCPs shall be maintained throughout the duration of earthworks activity, or until the site is*

permanently stabilised against erosion.

~~8276.~~ *Erosion and sediment control measures shall be constructed and maintained in general accordance with Auckland Council Guideline ~~GD05~~ GD2016/005: Erosion Sediment Control Guide for Land Disturbing Activities in the Auckland Region and any amendments to this document, except where a higher standard is detailed in the conditions of this consent or in the SSESCP documents referred to the ESCP, in which case the higher standard shall apply.*

~~8377.~~ *Earthworks shall be managed to avoid ~~There shall be no~~ deposition of earth, mud, dirt or other debris on any road or footpath beyond the subject site resulting from earthworks activity on the subject site. In the event that any deposition does occur, it shall immediately be removed. In no instance shall roads or footpaths be washed down with water without appropriate erosion and sediment control measures in place to prevent contamination of the stormwater drainage system, watercourses or receiving waters.*

Advice Note: *In order to prevent sediment laden water entering waterways from the road, the following methods may be adopted to prevent or address discharges should they occur:*

- *Provision of a stabilised entry and exit(s) point for vehicles;*
- *Provision of wheel wash facilities;*
- *Ceasing of vehicle movement until materials are removed;*
- *Cleaning of road surfaces using street-sweepers;*
- *Silt and sediment traps; and*
- *Catchpit protection.*

In no circumstances should the washing of deposited materials into drains be advised or otherwise condoned.

It is recommended that the consent holder discusses any potential measures with the Council's monitoring officer who may be able to provide further guidance on the most appropriate approach to take. Please contact the Team Leader ~~—Central Monitoring Compliance Monitoring - Central~~ for more details. Alternatively, please refer to Auckland Council Guideline GD05, Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region.

~~7278.~~ *The sediment and erosion controls at the site of the works shall be constructed and maintained in accordance with the approved SSESCP and shall be inspected on a regular basis and within 24 hours of each rainstorm*

event that is likely to impair the function or performance of the controls. A record shall be kept of the date, time and any maintenance undertaken in association with this condition, and shall be forwarded to the Team Leader ~~–Central Monitoring Compliance Monitoring - Central~~ on request.

~~7379.~~ The site shall be progressively stabilised against erosion at all stages of the earthwork activity and shall be sequenced to minimise the discharge of sediment to surface water. ~~The site shall be stabilised against erosion as soon as practicable, and in a progressive manner, as earthworks are finished over the sites. Areas of earthworks not actively worked for a period of two weeks shall be stabilised until such time as further earthworks occur in a specific area.~~

Advice Note: Earthworks shall be progressively stabilised against erosion during all stages of the earthwork activity. Interim stabilisation measures may include:

- The use of waterproof covers, geotextiles, or mulching;
- Top-soiling and grassing of otherwise bare areas of earth; and
- Aggregate or vegetative cover that has obtained a density of more than 80% of a normal pasture sward.

It is recommended that the consent holder discusses any potential measures with the Council's monitoring officer who may be able to provide further guidance on the most appropriate approach to take. Please contact the Team Leader ~~–Central Monitoring Compliance Monitoring - Central~~ for more details. Alternatively, please refer to Auckland Council Guideline GD05, Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region.

80. Upon completion or abandonment of earthworks on the subject site all areas of bare earth shall be permanently stabilised against erosion to the satisfaction of the Team Leader Compliance Monitoring - Central.

Advice Note: Should the earthworks be completed or abandoned, bare areas of earth shall be permanently stabilised against erosion. Measures may include:

- The use of mulching;
- Top-soiling, grassing and mulching of otherwise bare areas of earth;
- Aggregate or vegetative cover that has obtained a density of more than 80% of a normal pasture sward; and

The on-going monitoring of these measures is the responsibility of the consent holder. It is recommended that the consent holder discusses any potential measures with the Council's monitoring officer who will guide you on the most appropriate

approach to take. Please contact the Team Leader —~~Central Monitoring Compliance Monitoring - Central~~ for more details. Alternatively, please refer to Auckland Council Guideline GD05, Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region.

~~84. The Consent Holder shall carry out monitoring in accordance with the ESCP and shall keep records detailing:~~

~~a) The monitoring undertaken;~~

~~b) The erosion and sediment controls that required maintenance;~~

~~c) The time when the maintenance was completed; and~~

~~d) Areas of non-compliance with the erosion and sediment control monitoring plan (if any) and the reasons for the non-compliance.~~

~~This information shall be made available to the Team Leader — Central Monitoring upon request.~~

~~7482. Written nNotification shall be given to the Team Leader —~~Central Monitoring Compliance Monitoring - Central~~ within 20 working days of completion of earthworks.~~

7.0 REVIEW

Memo prepared by:

Fiona Harte




**Specialist - Earth and Stream works
Specialist Unit, Resource Consents**

Date:

13 June 2018

Matt Byrne



**Earthworks, Streamworks & Sediment Management Consultant
Specialist Unit, Resource Consents**

Date:

13 June 2018

Technical memo reviewed and approved for release by:

David Hampson



**Team Leader – Earth, Streams and Trees
Specialist Unit, Resource Consents**

Date:

13 June 2018

APPENDIX R

ADRIAN LAMONT

ARBORIST REPORT



MEMORANDUM

To: Nicola Broadbent and Tracey Grant, Auckland Council 30 May 2018

From: Adrian Lamont, Arb-Eco Limited

Subject: Application for Resource Consent for the 'Wynyard Hobson Proposal' for the staging of America's Cup Regatta No.36, Central Auckland

Ref: BUN60318372

Introduction

1. Arb-Eco Limited has been engaged by Auckland Council to provide an arboricultural assessment of an application for resource consent by Panuku Development Auckland (**Panuku**) to undertake various works in and around the Wynyard and Hobson wharves on Auckland's waterfront (**Wynyard Hobson Application**). The works are proposed in order to establish the facilities necessary for the staging of the 36th America's Cup regatta, due to be held in 2021. This will require the removal of up to seven trees growing within the road reserves of Brigham and Hamer Streets, five of which are protected under the Auckland Unitary Plan – Operative in Part version (**AUP**) and an additional unprotected tree and a group of shrubs growing on private property (No.90 Brigham Street). It will also require works in the root zone of up to fourteen street trees, eleven of which are protected.
2. The potentially affected protected trees are growing on land zoned as road. There are no plan overlays that would convey additional protection to the trees, however the affected trees on Brigham Street are growing within 20m of mean high water springs* (MHWS). Accordingly, the following vegetation protection rules must be considered:

* Assumed to equate to the 'indicative coastline' annotation on the planning maps.

E15.4.1 (A21) Vegetation alteration or removal of greater than 25m² of contiguous vegetation or tree alteration or tree removal of any indigenous tree over 3m in height within 20m of MHWS (in this zone) is a *restricted discretionary activity*.

One of the affected trees on Brigham Street is within 20m of MHWS *and* exceeds the specified height *and* is of an indigenous species. No other affected tree is protected by this rule.

E.17.4.1 (A7) Works within the protected root zone (of a street tree) that comply with Standard E17.6.3 are a *permitted activity*.

Wynyard Hobson Proposal (America's Cup 36)

The proposed works within the root zones of up to eleven protected street trees shall meet the relevant standards. No roots over 80mm diameter will require removal and no more than 20% of the root zone of any tree is likely to be disturbed.

E17.4.1 (A9) Tree removal of any tree (growing in a road) less than 4m in height and less than 400mm in girth is a *permitted activity*.

Two of the affected street trees meet these criteria.

E17.4.1 (A10) Tree removal of any tree (growing in a road) greater than 4m in height or greater than 400mm in girth is a *restricted discretionary activity*.

Five of the affected street trees meet these criteria.

3. Overall, the activity status of the proposed works with respect to protected vegetation is **restricted discretionary**.
4. The principal documentation that has been relied upon in making this assessment is as follows:
 - An Assessment of Environmental Effects (**AEE**) report titled 'America's Cup Wynyard Hobson' provided by *Unio Environmental Limited*, dated 13 April 2018 (Application Document 4).
 - A report titled 'America's Cup Wynyard Hobson – Landscape and Visual Effects Assessment' provided by John Goodwin of *Boffa Miskell Limited*, dated April 2018 (Application Document 11).
 - A report titled 'Arboricultural Assessment Report America's Cup 36 – Wynyard Hobson' provided by Stuart Barton of *Arbor Connect Limited* dated 12 April 2018 (Application Document 18).
 - A list of proposed conditions of consent provided by *Unio Environmental Limited*, dated 13 April 2018 (Application Document 7).
 - A set of plans titled 'America's Cup 36 Wynyard Hobson Proposal Urban Design, Landscape and Planning Figures' provided by *Boffa Miskell Limited*, dated 13 April 2018 (Application Document DS1).
5. Additionally, a site inspection was conducted on 18 April 2018.
6. The purpose of this memo is to review the information provided with the Application as it relates to protected trees, provide an assessment of the potential effects of the proposal on those trees, and to give a recommendation with respect to the proposed tree works. It also provides suggestions for conditions of consent to be included within your report on the application.

Assessment

7. The proposal is described in detail in the referenced documents. The applicant proposes to undertake various construction and enabling works in and around the Wynyard, Halsey and Hobson wharves in order to establish facilities for the staging of the 36th America's Cup regatta, scheduled to take place in 2021. Principally, this will involve constructing five team bases on the southern half of Wynyard Point (between Hamer Street and Wynyard Wharf), modification of the Viaduct Events Centre on Halsey Wharf to accommodate another team base and the extension of Hobson Wharf to accommodate a further team base. Associated works include construction of breakwaters and private yacht berths, installing services and providing access to the various facilities.

Wynyard Hobson Proposal (America's Cup 36)

8. The aspects of the proposal that will affect protected trees are the closing of the southern half of Brigham Street and incorporating it into the team bases to be provided on Wynyard Point (Bases C-G), enabling works in the southern part of Hamer Street (to the immediate west of the proposed team bases) and installation of underground services in Jellicoe Street.
9. The principal application document of relevance to this memorandum is the arboricultural assessment provided by Stuart Barton of *Arbor Connect Limited* (Application Document 18). This provides an accurate assessment of the arboricultural aspects of the proposal. I broadly agree with the content of this report, the principal points being:
 - 9.1. The three affected pohutukawa trees within the Brigham Street road reserve require removal as they directly conflict with the proposed footprints of the team bases. One of these trees (Tree 1, as shown on the plan at Appendix D to the Arbor Connect report) is a mature, established, protected tree of good overall quality. The other two (Trees 2 and 3) are small, recently planted, unprotected specimens.
 - 9.2. The four affected street trees within the Hamer Street road reserve are outside the footprint of the team bases but will be vulnerable to adjacent construction effects as well as any enabling works such as service installation, footpath relocation and vehicle accessways to the team bases. It is proposed to remove at least one of these trees, being a willow myrtle (Tree 17) that is within the footprint of a proposed vehicle access. The level of adverse effects on the three remaining trees (Trees 15, 16 and 18, a pohutukawa and two willow myrtles) will not be known until detailed design is carried out. As a precaution the applicant has elected to seek consent for their removal but they will be retained if feasible.
 - 9.3. Due to their growing environment, the trees that will (or may) be removed are not considered to be performing any significant ecological, hydrological, sediment control or ground stability function. The effects of the potential tree removals will therefore be limited to local adverse effects on visual amenity.
 - 9.4. There is potential to transplant some of the trees that will (or may) require removal. The report identifies four trees for which this option could be considered feasible, subject to detailed analysis. These are two mature pohutukawa and two mature willow myrtle (Trees 1, 16, 17 and 18). Other trees potentially requiring removal are not considered by the applicant to be suitable for transplanting either due to their poor quality, their growing environment or (in the case of recently planted trees) the ease and relative cost-effectiveness of planting replacement trees instead.
 - 9.5. Transplanting and/or suitable replacement planting will provide adequate mitigation for any local loss of tree cover.
 - 9.6. Other trees in the Brigham Street and Hamer Street road reserves are a sufficient distance from the works such that they will not be directly impacted and can be adequately isolated from the works by installation of temporary protective fencing.
 - 9.7. The potentially affected street trees in Jellicoe Street are unlikely to suffer any adverse effects from service installation in the adjacent road carriageway as they are growing in a rain garden, the

Wynyard Hobson Proposal (America's Cup 36)

structure of which will be providing a very effective root barrier between the trees and the subsurface of the road.

10. In addition to the trees and vegetation described in the arboricultural assessment, the proposal has the potential to affect a group of cabbage trees and pohuehue growing on a patch of land between No.34 Brigham Street and the Te Wero Walkway to the south. However, none of this vegetation is protected as the land on which it is growing is zoned for business use and is in excess of 20m from MHWS.
11. The affected protected trees are generally healthy specimens but mostly with poor shape and form due to extensive pruning that has been carried out to maintain clearance from overhead power lines. As such they make only a modest contribution to visual amenity at the location and do little to mitigate the intensity of the surrounding industrial structures. In my opinion it is likely that, when detailed analysis is undertaken, it will be concluded that the benefits of transplanting Trees 16, 17 or 18 will not justify the costs and effort. However Tree 1, which is a better quality specimen in good health that has not been structurally or visually compromised by powerline clearance pruning, may prove to be an exception.
12. Overall, in my opinion removal of the subject trees will give rise to only minor adverse environmental effects, i.e. effects that are noticeable but will not cause any significant adverse impacts.
13. The applicant has offered to plant a 5m tall replacement tree for each tree that is removed and cannot be transplanted. In my opinion, the proposed combination of transplanting and replacement planting will provide adequate mitigation for any loss of amenity that will arise due to tree removals.
14. For the reasons provided above, it is recommended that the proposed tree works are supported, with conditions.

Recommended conditions of consent

15. The draft conditions provided by the applicant contain a number of tree protection provisions, which have been recommended by their arborist or are from other recent consents that have been sought by the applicant for similar activities. These are conditions 33(m) and 120-135. In my opinion these are generally suitable to ensure adverse effects on the subject trees will be avoided, minimised or mitigated, with the following amendments and additions:

Amendments to suggested conditions

- 15.1. Suggested condition 120 should be amended to read 'Conditions 121 to 135 apply to Trees 1, 15, 16, ~~and~~ 17 and 18 as identified on the Tree Location Plan...'
- 15.2. Suggested condition 125 should be amended to read '...the relocation of any of Trees 1, 16, ~~or~~ 17 or 18 identified to be transplanted...'

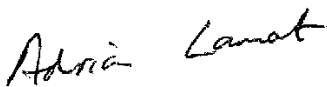
Wynyard Hobson Proposal (America's Cup 36)

Additional conditions

- 15.3. The appointed arborist shall provide advice during the detailed design phase and development of the construction methodologies and enabling works to be undertaken in Hamer Street to ensure the potential effects on trees and the number of tree removals required are minimised.
- 15.4. All reasonable care shall be taken during the works to ensure that the trees within Hamer Street that are growing outside the project area are retained in a safe and healthy condition. Only in instances where the Appointed Arborist (taking into consideration the tree species, age, condition and tolerance to damage, root zone disturbance and pruning) can demonstrate to the satisfaction of Council's Arborist that the stability and / or long-term health of a tree is likely to be compromised by the works may the tree be removed.
- 15.5. If feasible and proportionate to the value of the tree (in the opinion of the Appointed Arborist), any tree to be removed may be transplanted to another location or stored and replanted back within the vicinity of the project area, subject to the approval of Council's Arborist.
- 15.6. All works required to install services within Jellicoe Street shall be undertaken outside the below-ground rain garden structures.
- 15.7. The Consent Holder shall supply a completion memorandum to the Team Leader Compliance Monitoring – Central upon completion of all works on site. This memorandum shall include minutes of the pre-commencement meeting that is required as a condition of consent, a log of all site visits and actions undertaken by the Appointed Arborist, confirmation of the number, size, species and location of all replacement or transplanted trees, and confirmation that all required tree protection measures were adhered to for the duration of the works.

If you have any queries about the content of this memo please do not hesitate to contact me at adrian@arbeco.co.nz or tel.: 027 5858 587.

Regards



Adrian Lamont (Dip. Arb.)
Arb-Eco Limited

APPENDIX S

PAUL CRIMMINS

AIR DISCHARGES REPORT

Technical memo for a resource consent application relating to air discharges

To: Nicola Broadbent, Team Leader – North/West Consenting;
Tracey Grant, Principal Project Lead – Premium Resource Consents

From: Paul Crimmins, Senior Specialist – Contamination, Air & Noise

Date: 6 June 2018

1 Application details

Applicant's name: Panuku Development Auckland

Application number: BUN60318372 (air discharge: DIS60319096)

Activity type: Discharge of contaminants into air

Site address: 8-34 Brigham St and surrounds, Wynyard Quarter

2 Introduction

- 2.1 As requested, I have reviewed the America's Cup Wynyard Hobson resource consent application (**Application**) and relevant supporting information with reference to the requirements of Chapter E14: Air Quality of the Auckland Unitary Plan (Operative in Part) (**AUP**).
- 2.2 The following documents relevant to the Application have been reviewed:
- *America's Cup Wynyard Hobson Application for Resource Consent: Assessment of Environmental Effects*, prepared by UNIO Environmental Limited and dated 13 April 2018 (**AEE**) (Application Document 4);
 - *America's Cup Preliminary Site Investigation (Contamination) for Resource Consent Application, Wynyard Hobson*, prepared by Beca Limited and dated 11 April 2018 (**PSI**) (Application Document 27);

- *America's Cup Draft Remediation Action Plan for Resource Consent Application, Wynyard Hobson*, prepared by Beca Limited and dated 11 April 2018 (**RAP**), at Appendix F to the PSI;
- *America's Cup Wynyard Hobson: Proposed Conditions of Consent*, prepared by UNIO Environmental Limited and dated 13 April 2018 (Application Document 7);
- Submissions received during the period of public notification.

3 Summary of proposal and air discharge assessments

3.1 Proposal as relevant to air discharges

3.1.1 Panuku Development Auckland (the **Applicant**), is seeking consent to discharge contaminants into air from construction activities associated with the development of infrastructure for the America's Cup. A full description of the proposal is provided in the AEE. In brief:

- Construction around the Wynyard Point, and Halsey and Hobson Wharves is proposed to provide infrastructure and accommodation for America's Cup yachting syndicates and events from late 2019.
- Five syndicate bases are proposed on Wynyard Point between 46-63 Jellicoe St and 90 Brigham St. These are proposed to be constructed by upgrading the wharf with cement-stabilised columns or piling to approximately 15-20 m deep. Earthworks for building platforms and other site preparation earthworks are also proposed in this area.
- Construction activities are proposed to occur over a period of 18 months.
- Mudcreting (forming a stable material using dredgings and cement) and cement stabilisation is proposed to reclaim land around Brigham St and Halsey Wharf. This and some further grouting work is likely to require the on-site storage and handling of approximately 1,300 tonnes of cement. The majority of other construction will use supplied pre-mixed concrete or pre-cast concrete sections.
- The fill used to reclaim land in the areas where earthworks are proposed is noted by the PSI as likely to be contaminated, including by separate phase hydrocarbons (SPH), owing to the history of petrochemical storage activities in the Wynyard Quarter area.
- A draft RAP has been submitted as an appendix to the PSI (Appendix F). The RAP outlines proposed monitoring and management measurements to control and respond to discharges of odour and dust to air. It is similar to previous RAPs submitted in support of other earthworks previously undertaken as part of the redevelopment of the Wynyard Quarter area.

3.2 Site locality and environs descriptions (relevant to the discharge of contaminants into air)

3.2.1 Construction works are primarily to be undertaken in the following areas:

- Wynyard Point on the eastern side of Hamer St between Jellicoe St and 90 Brigham St;
- Jellicoe St (works for services);
- Halsey St (works for services);
- Viaduct Events Centre (Halsey Wharf);
- Hobson Wharf.

3.2.2 The Applicant provides a description of the site and receiving environment in the AEE at section 8. In brief:

- The AUP zones the works areas as Business – City Centre Zone and Coastal – General Coastal Marine Zone. A number of precincts also apply, including the Wynyard Precinct. Chapter E14 of the AUP schedules these zones and precincts as a ‘High air quality – dust and odour area’ in recognition of the air quality amenity expectations of areas where sensitive receptors are likely to be present.
- At the Wynyard Point construction area, surrounding land-uses to the north and west are predominantly industrial in nature. Immediately neighbouring businesses include the Firth concrete batching facility on Hamer St and the remaining Stolthaven bulk chemical storage silos to the north.
- The areas to the south of Jellicoe St and east of its intersection with Brigham St are considered to be sensitive to dust and odour as they now largely comprise high amenity recreation, retail, food and accommodation (residential and hotel) activities.

3.2.3 The PSI outlines the likely soil contamination levels present at the Wynyard Point works area. It is proposed to supplement this PSI with specific soil testing data in the form of a Detailed Site Investigation (**DSI**) prior to the start of construction works.

3.2.4 A history of soil contamination investigations in the Wynyard Quarter area is summarised in the PSI. Section 7 of the PSI states a number of conclusions, including that (page 66, 4th bullet point):

“Contamination by hydrocarbons has been identified widely across the [Wynyard Point works] site, with measurable thicknesses of SPH anticipated to be present in approximately 50% of the development areas. The identified SPH is in most locations restricted to less than 50mm.”

Further, the PSI notes that heavy metals, gasworks wastes and asbestos deposits are present throughout the Wynyard Quarter area as a result of contaminated fill materials used to reclaim the area in the early 20th century. The soil contamination status and its potential impacts on air discharges during construction works are further discussed in section 5 below.

4 Reasons for consent: Air discharges

4.1 AUP(OP) requirements for consent: Air discharges

4.1.1 Resource Consent has been sought for air discharges from the construction works under the provisions of the AUP. As detailed in Table 5 of the AEE (page 91), consent has been conservatively sought under Rule E14.4.1(A83) (mistakenly recorded as (A82) in the AEE) as there is considered to be a potential for objectionable odours to be released as a result of the works within contaminated soils. This approach follows that taken for previous large-scale earthworks in the Wynyard Quarter area.

4.1.2 I consider that consent is required for air discharges from the construction project under the following two rules in Chapter E14 of the AUP:

Rule E14.4.1: Discharge of contaminants into air from dust generating processes

(A83): Earthworks and the construction, maintenance and repair of public roads and railways not meeting the general permitted activity standards [Restricted Discretionary Activity in all zones];

(A77): Cement storage, handling, redistribution, or packaging [Discretionary Activity in the 'High air quality – dust and odour area' that includes the Business – City Centre Zone and Coastal – General Coastal Marine Zone].

4.1.3 Rule E14.4.1(A83) requires consent for the discharge of contaminants into air from earthworks that cannot maintain compliance with permitted activity standards E14.6.1.1. The most relevant conditions of this standard state:

- (1) *The discharge must not contain contaminants that cause, or are likely to cause, adverse effects on human health, property or the environment beyond the boundary of the premises where the activity takes place.*
- (2) *The discharge must not cause noxious, dangerous, offensive or objectionable odour, dust, particulate, smoke or ash beyond the boundary of the premises where the activity takes place.*

4.1.4 The following restricted discretionary activity standard contained in E14.6.3.4 Dust Generating Activities applies to the application:

- (3) *For discharges or dust from earthworks or road construction and maintenance that do not meet permitted activity standards, a dust management and monitoring plan must be submitted to Council. The Plan must show the means to minimise dust such that it does not cause nuisance effects beyond the boundary of the works.*

4.1.5 The application relates to the excavation of soils contaminated by hydrocarbons. During excavations, these soils have the potential to generate odour and hazardous air

pollutants. It is considered that there is a potential for air discharges associated with the excavation of materials to result in non-compliance with Standard E14.6.1.1(2). Therefore, the discharge of contaminants into air from the works may not comply with the standards and are considered to be a Restricted Discretionary Activity under Rule E14.4.1(A83).

- 4.1.6 Rule E14.4.1(A77) and the associated permitted activity standards E14.6.1.12 appear to relate to the bulk storage of cement powder within silos. However, the wording of the rule defines the storage and handling of cement in the High air quality – dust and odour area as a Discretionary Activity.
- 4.1.7 As the construction activities are likely to involve the storage and handling of cement for mudcreting and grouting activities in the Business – City Centre Zone and Coastal – General Coastal Marine Zone (which are scheduled as part of the High air quality – dust and odour area), I consider that any air discharges from these activities are a Discretionary Activity under Rule E14.4.1(A77).
- 4.1.8 Please note that some rule numbers of Table E14.4.1 were altered by a minor change to the AUP(OP) in March 2018, meaning that the above current rule numbers differ from those listed in Table 5 of the application report.
- 4.1.9 Overall, I consider that the air discharges from the America’s Cup construction works are a Discretionary Activity under Chapter E14 of the AUP.
- 4.1.10 Pursuant to section 15(2A) of the RMA, no person may discharge any contaminant into air in a manner that contravenes a regional rule unless the discharge is expressly allowed by a national environmental standard or other regulations, a resource consent, or is expressly allowed by section 20A.

4.2 Other discharges considered

- 4.2.1 Construction activities typically utilise mobile machinery and small diesel generators. Air discharges from the exhausts of vehicles and mobile machinery are a Permitted Activity under Rule E14.4.1(A114). Air discharges from small diesel generators are a Permitted Activity under Rules E14.4.1(E49) and E14.4.1(A51).
- 4.2.2 The minor discharges of hazardous air pollutants from these combustion sources are considered to be part of the permitted baseline (section 104(2) of the RMA) and therefore, no further analysis of the potential adverse effects associated with these minor discharges is considered necessary.

5 Technical assessment of effects

5.1 Assessment of air discharge effects

- 5.1.1 The Applicant identifies and assesses the effects of the proposed activity on the environment that are likely to arise and mitigating factors in section 10 of the AEE.
- 5.1.2 Potential air discharges are primarily associated with the proposed disturbance of contaminated soils. It is considered that these earthworks have the potential to discharge odour given the likely presence of SPH contamination. The potential for discharges of dust is likely to be similar to other large-scale construction activities.
- 5.1.3 A range of control measures are proposed for air discharges associated with the works within contaminated soils (odour and hazardous air pollutants) and dust. These measures are outlined in the draft RAP. I consider the draft RAP meets the requirements of AUP air discharge standard E14.6.3.4(3) and note that further air discharge management measures are proposed to be included within a Construction Environmental Management Plan (CEMP).

Air discharges from disturbing contaminated soils

Separate phase hydrocarbons

- 5.1.4 The contaminant which has the greatest potential to be discharged to air is considered to be odour from the disturbance of soils contaminated by hydrocarbons. As described in the PSI, the soils of Wynyard Quarter are contaminated partially as a result of historical land use as fuel storage depots. For example, a major spill of A1 jet fuel occurred in 1986 near the corner of Daldy St and Madden St. Previous soil testing in the Wynyard Point works area has identified the presence of SPH contamination in this area.
- 5.1.5 The PSI states that SPH is most likely to comprise diesel and jet-fuel (kerosene) derivatives owing to past spills; these fuels are not typically associated with significant discharges of hazardous air pollutants. Potential health effects arising from the discharge of volatile organic compounds (VOC) in an SPH-contaminated area of Wynyard Quarter were thoroughly investigated as part of a trial undertaken for application number NRSI-40686, to discharge contaminants into air from upgrade works at the northern section of Daldy St. This trial demonstrated that during excavations within an area of Wynyard Quarter heavily contaminated by SPH, no species of VOC exceeded ambient air quality criteria published to protect human health.
- 5.1.6 SPH generally forms a layer immediately above the groundwater, which varies in height with tides, rainfall and the nature of fill used. The presence of a layer of odorous SPH has been noted during previous excavations undertaken as part of the upgrades of Jellicoe St and northern Daldy St when inflows of groundwater and SPH were encountered at excavation depths in excess of 3 m.

- 5.1.7 The PSI notes that in the Wynyard Point works area to the north of the buried Jellicoe seawall, groundwater levels are at much shallower depths, within 2 m of the surface. Therefore, even relatively shallow excavations for the construction of building platforms may encounter SPH contamination.
- 5.1.8 A DSI is proposed to be undertaken prior to the earthworks with sub-surface soil sampling throughout the proposed works areas. This further investigation will identify the locations and depths of any SPH contamination likely to be encountered during the earthworks. The draft RAP is proposed to be updated following a review of the DSI, so that further measures to control odours from SPH contamination can be formulated in response to any significant levels identified.

Other soil contaminants

- 5.1.9 Other contaminants present as a result of the fill used for reclamation throughout Wynyard Quarter include organic compounds such as polycyclic aromatic hydrocarbons (PAH), blue billy cyanide-based gasworks wastes, and inorganic compounds such as heavy metals. Heavy metals, such as lead and mercury, are unlikely to be discharged into air as a result of ground disturbance provided dust is controlled as detailed by the draft RAP.
- 5.1.10 The potential for air discharges from organic compounds associated with the contaminated fill used for the reclamation were discussed in detail as part of the air quality technical memos prepared for consents NRSI-37436 and NRSI-40686, along with other similar reports prepared for recent works in the Wynyard Quarter area. I consider that the potential effects which were identified as part of these assessments are equally applicable to this proposal as similarly-contaminated fill was used throughout the Wynyard Quarter reclamation. The conclusions of these reports were that these contaminants are likely to have negligible potential health effects from an inhalation-exposure pathway. Effects may exist from dermal or other contact, but these issues are beyond the scope of this memo.

Dust discharges

- 5.1.11 A risk of dust discharges exists, although I consider that the works do not present any unique challenges for controlling dust. Previous mudcreting works undertaken throughout the Auckland waterfront area have not resulted in notable discharges of dust from the handling or storage of cement. I consider that the storage of cement has a low risk of dust discharges if standard controls are in place for deliveries and transfers.

Methods to minimise and mitigate air discharge effects

- 5.1.12 The Applicant's proposed mitigation measures for avoiding, remedying or mitigating discharges of contaminants into air during excavations of potentially contaminated soils are provided in sections 9.9 and 10 of the RAP.

- 5.1.13 Monitoring for VOCs is proposed to maintain a safe working environment (by measuring the lower-explosive limit for the presence of potentially flammable VOCs). I note that during previous works in the Wynyard Quarter area, particular care and monitoring for VOCs has been required during works near underground pipes.
- 5.1.14 Odour is proposed to be monitored using ten-minute field observations at a series of points around the works area, based on the methodology recommended by the *Good Practice Guide for Assessing and Managing Odour* (Ministry for the Environment, 2016). The field observation methodology is detailed in Appendix A of the RAP. I agree that this methodology will adequately identify and monitor odours so that they can be appropriately minimised, although I note that the monitoring may prove cumbersome and a shorter screening field assessment may suffice for daily monitoring with longer and more-robust monitoring used when odours are detected.
- 5.1.15 Proposed contingency measures, for when odour monitoring demonstrates that stated action thresholds have been breached, are outlined in Table 9-2 of the RAP. These state that if ‘very strong’ intensity odours are detected, works will cease until further odour mitigation measures are employed and deemed sufficient to reduce odour discharges. Proposed odour mitigation measures include limiting the length of time SPH-contaminated soils are exposed to air on-site, scheduling known odorous works for times when neighbouring sensitive receptors are unlikely to be affected, and the use of odour neutralising sprays. These contingency measures have proven effective for avoiding significant odour effects during other earthworks undertaken in the Wynyard Quarter area.
- 5.1.16 The RAP also includes some proposed measures for controlling dust during the works. Dust management measures can be further detailed in the Construction Environmental Management Plan (CEMP). These measures are likely to include the dampening of exposed earth, sweeping roads to avoid tracking of mud, and the use of cloth-lined fencing, in accordance with the recommendations of the *Good Practice Guide for Assessing and Managing Dust* (Ministry for the Environment, 2016).
- 5.1.17 Ensuring that the contractors are continuously vigilant for odours caused by the exposure of contaminated soil throughout the works site is crucial for the mitigation of air discharge effects. Additionally, visual monitoring for dust emissions throughout the works will be an important measure for avoiding adverse dust effects.
- 5.1.18 A risk of asbestos in the soils exists, as noted by the PSI and found elsewhere in discrete pockets throughout the Wynyard Quarter area. A specific Asbestos Management Control Plan is proposed to detail all health and safety requirements regarding works where there is potential asbestos contamination, including dust controls and air monitoring as required.
- 5.1.19 Liaisons with neighbours are proposed to be detailed by the CEMP. I consider that communications with neighbours, including notifications of the works programme and the contact details of on-site staff, are valuable for managing amenity effects, including dust and odour.

Assessment of effects conclusion

- 5.1.20 The AEE concludes that the proposed management measures will adequately avoid adverse air discharge effects to the environment.
- 5.1.21 I agree with the Applicant's assessment and consider that significant adverse effects are not likely to occur at any location beyond the boundary of the site as a result of potential discharges of contaminants to air (including odour and dust) provided the proposed management measures are adhered to.
- 5.1.22 I consider that the air discharge control, monitoring and contingency measures detailed by the draft RAP are adequate for the level of risk present as a result of soil contamination in the works area and will appropriately avoid, mitigate and/or remedy potential adverse odour and dust effects so that there will be negligible effects to air quality amenity beyond the boundary of the works areas. Further, I consider that previous assessments and experience within the Wynyard Quarter area sufficiently demonstrate that the potential discharges to air of VOCs and other hazardous air pollutants during the works are unlikely to affect human health or the environment.

6 Statutory considerations

6.1 Statutory considerations: Section 104(1)(b)

- 6.1.1 In section 11 of the AEE, the Applicant assesses the potential air discharges from the construction works against the relevant statutory planning documents. I consider that the relevant statutory documents for assessing this application are the Resource Management (National Environmental Standards for Air Quality) Regulations (**NES:AQ**) and AUP.

Resource Management (National Environmental Standards for Air Quality) Regulations

- 6.1.2 Discharges of contaminants into air from the activity are not expected to cause an exceedance of the Ambient Air Quality Standards defined in Schedule 1 of the NES:AQ. Significant discharges of fine particulate matter less than 10 µm in diameter (PM₁₀) or other scheduled hazardous air pollutants are not likely to arise from the proposed construction works.

Auckland Unitary Plan (Operative in Part)

- 6.1.3 At a Regional Policy Statement (**RPS**) level, I consider that the potential air discharges comply with all relevant RPS objectives and policies, as contained in Chapter B7.5 of the AUP. Notably, the control measures outlined in the draft RAP will adequately avoid significant health and amenity effects.

- 6.1.4 At a Regional Plan level, relevant objectives and policies for air discharges are contained in Chapter E14 Air Quality. I consider that the proposal complies with these objectives and policies as air quality will be maintained and significant adverse effects will be avoided as a result of the management and control measures in the draft RAP.
- 6.1.5 With respect to the requirement for the Best Practicable Option (Policy E14.3(8)(a)), I consider that the proposed management measures outlined in the draft RAP comply with this requirement. The above assessment of effects has taken a precautionary approach in accordance with Policy E14.3(8)(b).

6.2 Submissions relevant to air discharges

- 6.2.1 I have reviewed the submissions received during the period of public notification and note that potential air discharge effects are not raised as a primary concern.
- 6.2.2 General concerns regarding construction effects, including potential dust effects, are raised by some submitters. Of particular note are submissions from three restaurants near Jellicoe St (Jack Tar, The Conservatory and Rushworth Café) that raise concerns regarding the potential for dust discharges to impact outdoor dining areas. Viaduct Harbour Holdings Ltd seeks further measures within the management plans to minimise potential dust discharges owing to the high amenity of the area. I have taken the amenity of the area and the proximity of activities sensitive to dust discharges such as outdoor dining into account within the above assessment of air discharge effects.
- 6.2.3 Concerns regarding the adequacy of the proposed construction management plans and their approval process are raised by a number of submitters. I note that proposed general air discharge management measures have been submitted as part of the draft RAP assessed above and are therefore already available to submitters to review.

6.3 Matters relevant to discharge or coastal permits (Section 105) and restrictions on certain permits (Section 107)

- 6.3.1 I consider that the provisions of section 105 have been met as it has been determined that there are no significant effects on the receiving environment as concluded in section 5 of this report.
- 6.3.2 With regard to the consideration of alternatives required by section 105, I note that the works are required as part of the proposal to stage the defence of the America's Cup yachting trophy by Emirates Team New Zealand. The works will also form part of the wider upgrade of Wynyard Quarter as it transforms from its previous industrial landuse to a high-amenity area of mixed residential, commercial and recreational spaces. A range of alternative methods for undertaking sub-surface and reclamation works have been considered within the RAP. Mixing dredged materials and soils with cement to form a mudcrete to bind contaminants has been selected. This method has previously been found to mitigate odour emissions during sub-surface excavations in the Wynyard Quarter area.

6.3.3 Section 107(1) of the RMA places restrictions on the granting of certain discharge permits that would contravene sections 15 or 15A of the RMA. I do not consider that section 107 matters are relevant to the type of discharge which will result from the proposal.

6.4 Duration of consent: Section 123

6.4.1 The Applicant has requested a 10 year term of consent for construction discharge consents. I consider it appropriate to set a term of 10 years for the air discharge consent. A 10 year term will provide ample time for the construction to be completed in accordance with the proposal, although as detailed above, it is expected to be completed within a shorter timeframe.

7 Recommendation and conditions

7.1 Adequacy of information

7.1.1 The above assessment is based on the information submitted as part of the application. I consider that the information submitted is sufficiently comprehensive to enable the consideration of the above matters on an informed basis:

- The level of information provides a reasonable understanding of the nature and scope of the proposed activity as it relates to the AUP.
- The extent and scale of any adverse effects on the environment are able to be assessed.
- Persons who may be adversely affected are able to be identified.

7.2 Recommendation: Air discharges

7.2.1 The assessment in this memo does not identify any reasons to withhold consent, and the air discharge consent application could be granted consent, subject to recommended conditions, for the following reasons:

- I consider that the air discharge effects on the receiving environment are less than minor. Subject to the imposition of conditions, the effects can be adequately avoided, remedied or mitigated.
- I consider that the proposed air discharges are consistent with the relevant provisions of the NES:AQ, AUP, and in particular the integrated management of the air resource.
- The sensitivity of the receiving environment to the adverse effects of the air discharges will not be compromised given the application of appropriate on-site management techniques.

- Discharges of hazardous air pollutants are not expected to cause an exceedance of the relevant ambient air quality criteria as contained within the NES:AQ and AUP.
- Discharges of dust and odour can be adequately controlled using mitigation measures as detailed by conditions of consent and management plans so that offensive or objectionable effects do not occur beyond the boundary of the site.

7.3 Conditions: Air discharges

- 7.3.1 The Applicant has proposed conditions of consent in Application Document 7, which include conditions relating to the finalisation and implementation of the RAP (proposed conditions 85 to 89). However, air quality management measures not specifically detailed (although proposed conditions 33(j) and 92 touch on dust controls).
- 7.3.2 Typically, I would recommend a range of specific air discharge conditions to ensure that potential effects are adequately controlled, monitored and mitigated. However, given the range of conditions relating to management plans and low likelihood of significant air discharge effects from these works, I consider that fewer specific conditions are appropriate in this case. I have recommended some changes to the Applicant's proposed conditions of consent below for consideration as part of the overall suite of consent conditions applying to the construction phase.
- 7.3.3 I consider that air discharge effects can be adequately controlled by adherence to a management plan. I consider the RAP pertaining to works within contaminated soils to be the most appropriate management plan for describing the controls, monitoring and management for potential discharges of odour and VOC. The potential for minor dust effects from the handling of cement would be best addressed in the general Construction Environmental Management Plan (CEMP).
- 7.3.4 In terms of limits for the discharges to air, the application notes that the discharges may not comply with the general permitted activity standards, E14.6.1.1 of the AUP, and consent has accordingly been applied for. However, the assessment of effects assumes that such non-compliance is unlikely to occur in reality and, if offensive or objectionable odour effects did arise, they would be immediately addressed. I agree with this approach and recommend that the overall CEMP specifies that the general permitted activity criteria are required to be met, with a contingency for short duration effects that will be immediately identified and managed.

Recommended Amendments to Conditions

- 7.3.5 Having reviewed the proposed conditions of consent in Document 7, I agree with the general conditions relating to the requirement and certification of management plans. I consider that air discharge controls can be appropriately addressed by the RAP and CEMP. As such, I recommend that specific bullet points are included within the requirements for these two management plans relating to air quality. Specifically, I recommend that the limit condition for air discharge effects is included as a

'Construction Quality Assurance' measure within the CEMP (proposed condition 33). I suggest that a new item (t) be inserted into condition 33 as follows:

33. *This part of the CEMP requires the establishment of management frameworks, systems and procedures to ensure quality management of all on-site construction activities and compliance with the conditions of this consent. This section shall provide details on the following:*

...

- t) Measures to monitor and minimise discharges of dust and odour so that any offensive or objectionable effects are immediately identified and mitigated;

7.3.6 Odour is most likely to be generated as a result of excavating contaminated soils, and therefore, odour monitoring and mitigation measures should be included as an additional requirement for the RAP in proposed condition 88, paired with an amendment to condition 92. The new conditions would read as follows:

88. *The RAP shall be in general accordance with the Draft Remediation Action Plan included in the consent application, and shall include :*

...

- f) Measures to monitor and mitigate discharges of odour and volatile organic compounds during excavations, including criteria/action levels for triggering specific control and contingency measures;

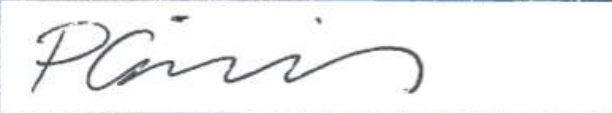
92. ~~*To protect the health of workers on the site during excavations, works*~~
Excavation or soil disturbance in areas of known or potentially contaminated land shall be managed to minimise the generation of dust, odour and volatile organic compounds on the site and be carried out in accordance with the certified RAP.

8 Definitions


AUP	Auckland Unitary Plan (operative in part, 19 November 2016)
CEMP	Construction Environmental Management Plan
Council	Auckland Council
DSI	Detailed Site Investigation
NES:AQ	Resource Management (National Environmental Standards for Air Quality) Regulations 2004 and all amendments
PM ₁₀	Fine particulate matter less than 10 µm in diameter
PSI	Preliminary Site Investigation
RAP	Remediation Action Plan
RMA	Resource Management Act 1991 and all amendments
SPH	Separate phase hydrocarbon
VOC	Volatile organic compound, a hydrocarbon compound with a vapour pressure greater than 0.27 kPa at 25°C

9 Review

9.1 Technical memo prepared by:

Paul Crimmins Senior Specialist – Contamination, Air & Noise	
Specialist Unit, Resource Consents	
Date:	6/6/2018

9.2 Memo reviewed by:

Vaughan Turner Specialist – Contamination, Air & Noise	
Specialist Unit, Resource Consents	
Date:	6/6/2018

APPENDIX T

MYFANWY EAVES

HISTORIC HERITAGE REPORT

Technical Memo for Resource Consent application BUN 60318372. Historic Heritage matters.

To: Nicola Broadbent, Team Leader – North/West Consenting;
Tracey Grant, Principal Project Lead – Premium Resource Consents

From: Myfanwy Eaves, Senior Specialist: Archaeology

Date: 20 June 2018

1 Application details

Applicant's name: Panuku Development Auckland

Application number: BUN60318372

Activity type: Bundled, Non-Complying

Site address: 8-34 Brigham St and surrounds, Wynyard Quarter

2 Introduction

- 2.1 As requested, I have reviewed the America's Cup Wynyard Hobson resource consent application (**Application**) and relevant supporting information with reference to the requirements of Chapters D17 (Historic Heritage Overlay), E11 (Land Disturbance - Regional) and E12 (Land Disturbance - District) of the Auckland Unitary Plan – Operative in Part (**AUP**) and having regard to relevant provisions of the Resource Management Act 1991 (**RMA**).
- 2.2 Section 2 of the RMA provides the following definition of “historic heritage”:

historic heritage—

- (a) means those natural and physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures, deriving from any of the following qualities:
 - (i) archaeological;
 - (ii) architectural;
 - (iii) cultural;
 - (iv) historic;
 - (v) scientific;
 - (vi) technological; and
- (b) includes—
 - (i) historic sites, structures, places, and areas; and
 - (ii) archaeological sites; and
 - (iii) sites of significance to Māori, including wāhi tapu; and
 - (iv) surroundings associated with the natural and physical resources

2.3 Section 6(f) of the RMA provides that in achieving the purpose of the Act, all persons shall recognise and provide for *“the protection of historic heritage from inappropriate subdivision, use and development”*.

2.4 The following documents relevant to the Application have been reviewed:

- a. *America's Cup Wynyard Hobson Application for Resource Consent: Assessment of Environmental Effects*, prepared by UNIO Environmental Limited, 13 April 2018 (**AEE**) (Application Document 4);
- b. *Protected New Zealand Objects Protocol (Protocol)*, unknown source and date (Application Document 8);
- c. *America's Cup Preliminary Site Investigation (Contamination) for Resource Consent Application, Wynyard Hobson (PSI)*, April 2018, Beca Limited (Application Document 27);
- d. *America's Cup Wynyard Hobson: Proposed Conditions of Consent*, prepared by UNIO Environmental Limited, 13 April 2018 (Application Document 7);
- e. *Annex 17, Wynyard Quarter Inventory of Character Elements*, 2005, former Auckland Council District Plan – Central Area (referred to in the PSI);
- f. *America's Cup Wynyard Hobson: Landscape and Visual Effects Assessment (LVA)*, April 2018, by Boffa Miskell (Application Document 11);
- g. New Zealand Coastal Policy Statement 2010 (**NZCPS**);
- h. Relevant provisions of the AUP, including the Precinct rules;
- i. Auckland Libraries Heritage Images: 1978 (unknown 476-1), 1961 (NZ Herald 1370-29-32-2), 1933 (Richardson 4-5326), 1912 (Winkelmann 1-W1526), 1908 (Winkelmann 1-W884), 1905, (Auckland Weekly News AWNS 19050525-13-3), 1904 (Winkelmann 1-W920);

- j. Auckland Council GeoMaps and the Cultural Heritage Inventory (**CHI**), and specifically the following CHI files¹: CHI 18593 (Dredge driving Wheel), CHI 401 (Hulk, *Chelmsford*), CHI 404 (Hulk, *Kaniere*), CHI 18610 (Industrial), CHO 536 (Western tide deflector, breakwater site), CHI 541 (Western wharf), CHI 18609 (building industrial, Sanford/Vos boatbuilding yards), CHI 18608 (building, industrial, Golden Bay Cement), CHI 19590 (sculpture), CHI 18610 (industrial, oil tanks), CHI 18606 (Building, Sanford), CHI 18607 (building AHB shed), CHI 320 (transport bridge, abutments and control shed), CHI 552 (wharf site, Albert (former)), CHI 555 (wharf site, Ferry), CHI 990 (Maritime museum), CHI 582 (Hobson wharf by Eastern Viaduct), CHI 533 (wharf site, Hobson Street), CHI 308 (building, Launchman's), CHI 20107 (memorial, and CHI 2551 (building, Auckland Harbour Board, engineers' workshops (former) (all of these CHI sites are plotted on **Figure 2** below);
- k. Relevant submissions received on the Application.

3 Summary of proposal

4

- 3.1 Panuku Development Auckland (the **Applicant**), seeks consent to establish infrastructure to support the America's Cup 36 (**AC36**) defence, the event itself, and any subsequent defender races within the next ten years, and for associated regatta and challenger series. The proposal is described in the AEE and encompasses the following:
- a. Construction over 19-21 months, operating 24 hours a day 6/7 days a week. These works will require earthworks on Wynyard Point extending over an area of 23,100m² and a volume of 10,607m³.
 - b. Dredging of 87,000m³ over a 5-7 month period within the Wynyard Wharf South water-space, the Outer Viaduct Harbour and the access channel.
 - c. A 74m extension to Hobson Wharf, the area to contain a syndicate base building.
 - d. Four breakwaters: an 81m breakwater east of Wynyard Wharf; Halsey Wharf, to extend initially 39m to the north of Halsey Wharf then turn and extend 84m to the north-west; a 35m breakwater east of Hobson Wharf; a 42m breakwater to the south of Hobson Wharf.
 - e. The installation of wave panes to the new breakwaters at Hobson Wharf and Halsey Wharf.
 - f. Reclamation is proposed by infilling the water-space between the existing Wynyard Wharf and Brigham Street. This construction will be

¹ Available on line at <https://chi.net.nz>.

enabled by the stopping of Brigham Street (most probably to be undertaken under special legislation, not part of this consent).

- g. Five syndicate bases are proposed on Wynyard Point between 46-63 Jellicoe Street and 90 Brigham Street. The earthworks required (site preparation works) for the construction of building platforms are also proposed in this area but may be the subject of a separate consent application.

3.2 Construction works are to be undertaken in the following areas:

- Wynyard Point on the eastern side of Hamer Street, between Jellicoe Street and 90 Brigham Street;
- Jellicoe Street (works for services);
- Halsey Street (works for services);
- Viaduct Events Centre (Halsey Wharf);
- Hobson Wharf.

3.3 The Applicant provides a description of the site and receiving environment in the AEE at section 8. In brief:

- a. The area is a highly modified coastal environment dominated by commercial and public activity in conjunction with commercial and recreational boating. This includes Westhaven Marina, Wynyard Precinct, Viaduct Precinct, the Central Wharves Precinct and the Port Precinct. The dominant activities include marine, fishing and port activities and structures, food, beverage, entertainment, retail and accommodation activities, cruise ship terminals, berthage, public access and events.
- b. The AUP zones the works areas as Business – City Centre Zone and Coastal – General Coastal Marine Zone. Two precincts also apply, the Wynyard and Viaduct Harbour Precincts (Chapter I – with the Waitemata Navigation Channel Precinct to the north of the site).

3.4 Table 1 of the AEE provide additional AUP information at pages 11-12. While some GeoMaps Layers (non-statutory) information has been included in Table 1, the table does not list information available in the non-statutory CHI.²

3.5 The proposal is a non-complying activity and consent may only be granted if the adverse environmental effects are no more than minor, or the proposal is not contrary to the objectives and policies of the AUP (AEE 10.1.1, page 106).

² Although section 10.6 of the AEE does list some of the CHI items known to be in the application area (AEE, page 138).

4. Review of Application / Reasons for consent:

- 4.1 We draw attention to s104(1), where direction is given to have regard to (c) Any other matter that the consent authority considers relevant and reasonably necessary to determine the application.
- 4.2 The applicant confirms, at least twice within the AEE, that the activity status for the bundled application is recognised as non-complying (Section 10.1.1 (page 106) and section 11.7, page 249). We consider that there is known historic heritage material contained within and adjacent to the application area (2.4.j).
- 4.3 Through the use of the CHI records, it has been identified that unscheduled historic heritage items are present, condition unknown, including some within the Application area (refer to **Figure 2** below).
- 4.4 The Application does not include a historic heritage assessment (**HIA**) and does not include a specialist analysis of the effects of the proposal on historic heritage. A HIA would have been prepared by a historic heritage expert and they would have collated all known information on potential historic heritage resources from accepted heritage agencies and archival sources. The historic heritage expert would then have provided an assessment of the effects of the proposal on this material. A HIA would also have discussed the risk to both historic heritage material and the proposal time line.
- 4.5 Rather than providing a HIA, the applicant has provided a ‘Protected Objects Protocol’ (Document 8). I have not previously encountered this approach or type of document in a RMA context. I do not support the approach for a number of reasons:
- a. I acknowledge that the Protocol is an attempt to address the fear/risk of encountering historic heritage at this location. However, I consider that it creates unnecessary confusion, uncertainty and unacceptable risk to unrecorded historic heritage located in the application area.
 - b. The Protocol proposes to override the AUP’s accidental discovery rules (E11, E12 and E26), which I do not support.
 - c. I consider the proposed approach may establish an undesirable precedent for future applications.
 - d. Moreover, as the Protocol (Document 8) does not provide an effects-based assessment, it seeks to establish an unacceptable process for the recording of any historic heritage material encountered. It is important that the applicant be required to provide records of material encountered during the implementation of these consents.³

³ This will also assist the Council to fulfil its duties under section 35 of the RMA (to gather information, monitor and keep records, e.g. as to the state of the environment).

- 4.6 Other documents (which form part of the application) provide a partial assessment of effects. These are discussed below. In the absence of a specialist assessment / HIA, I have endeavoured to assess the proposal's effects having regard to the partial information supplied by the applicant, and to records and information available to the Council.
- 4.7 The Landscape and Visual Assessment (**LVA**) draws attention to the New Zealand Coastal Policy Statement 2010 and the Hauraki Gulf Marine Park Act 2010 (refer to section 5, pp 17-8).
- 4.8 As the LVA records (at section 5.3, page 18), section 8 of the Hauraki Gulf Marine Park Act 2010 (which, in part, deals with the protection and, where appropriate, the enhancement of the natural, historic, and physical resources of the Hauraki Gulf, its islands and catchments), is to be treated as a national policy statement and a New Zealand coastal policy statement.
- 4.9 The PSI by Beca discusses a "...history of soil contamination investigations in the Wynyard Quarter area". The authors of the PSI observe (section 7, page 66):

Contamination by hydrocarbons has been identified widely across the [Wynyard Point works] site, with measurable thicknesses of SPH anticipated to be present in approximately 50% of the development areas. The identified SPH is in most locations restricted to less than 50mm.

*Further, the PSI notes that **heavy metals, gasworks wastes and asbestos deposits are present throughout the Wynyard Quarter area as a result of contaminated fill materials used to reclaim the area in the early 20th century.** The soil contamination status and its potential impacts ... during construction works are further discussed in section 5 [author emphasis]*

*The PSI outlines the likely soil contamination levels present at the Wynyard Point works area. It is proposed to supplement this PSI with specific soil testing data in the form of **a Detailed Site Investigation (DSI) prior to the start of construction works.** [author emphasis]*

- 4.10 The PSI advises that the Jellicoe Street seawall will be encountered during secondary excavation for infrastructure (Figure 5 page 16). It also advises that the ongoing monitoring of groundwater levels at this location shows elevated levels in this area. Further, it refers to the information provided in Annex 17 of the former Auckland Council District Plan – Central Area Section 2005, entitled "Wynyard Quarter Inventory of Character Elements"⁴. While that Annex no longer has any statutory force, the PSI has made reference to it, and it provides a useful description of some of Wynyard Quarter's character elements (based on a half day inspection of the area).

⁴ <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/district-and-regional-plans/district-plans/central-area-district-plan/Pages/central-area-district-plan-annexures.aspx>

- 4.11 Further, it is noted that a detailed site investigation (**DSI**) will be undertaken prior to earthworks which will include sub-surface soil sampling throughout the proposed works areas. The AEE notes that the area is known to be potentially contaminated due to the material used in the reclamation (AEE, p94). This further investigation will allow the identification of locations and depths of contamination likely to be encountered during the earthworks. In my opinion, it would be appropriate to link this DSI with historic heritage monitoring to inform the nature and extent of historic heritage activity (discussed further in paragraph 5.11 below).
- 4.12 The development of the waterfront area is presented at section 4.1 of the AEE (page 18), notably with a topographical and European-centric focus. A reproduced image is accordingly labelled as 'historic' (Figure 2, AEE p19), my **Figure 1** below.

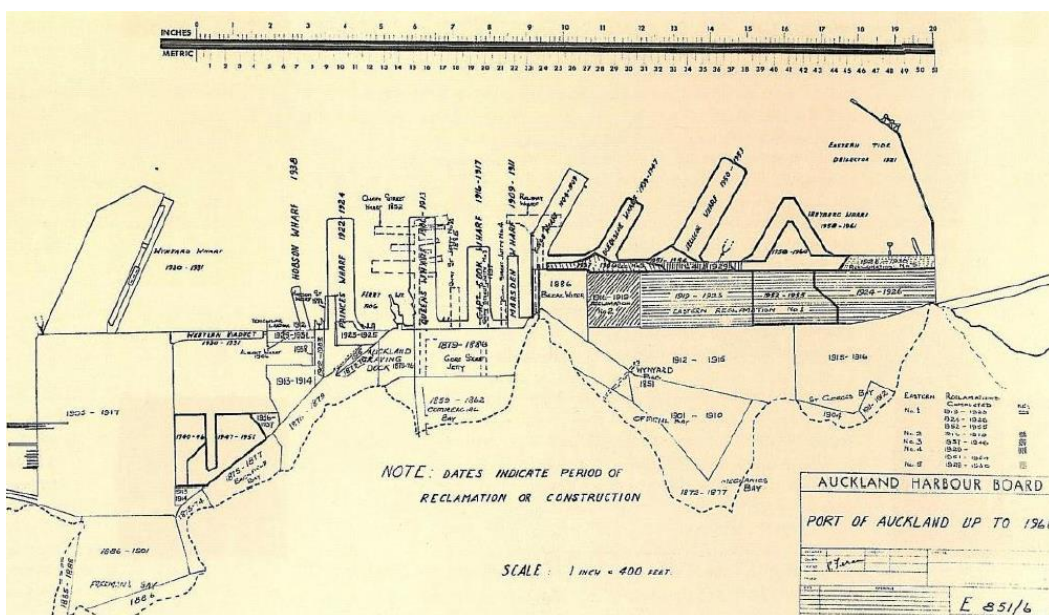


Figure 1: Historic Reclamation diagram of the Auckland Waterfront (Ports of Auckland), AEE p19.

- 4.13 The AEE discusses 'historic matters' in separate locations.⁵ As a result, the relevant information is scattered throughout the document and the dates of various events are not presented clearly. The AEE commentary also relies on secondary information sources (for example, Figure 1), rather than the usual approach of returning to primary or original sources.
- 4.14 The AEE correctly identifies the scheduled items in the vicinity of the project (section 8.9, pp75-6), noting for instance the scheduled Western Viaduct lift bridge (Schedule 14.1, ID 02068) and the Wind Tree sculpture (ID 1916).
- 4.15 In order to assess effects on historic heritage matters, it is simplistic to concentrate on the known and identified items as presented in the AEE as it

⁵ Sections 4.1, section 8 and in the main at section 10.6.

suggests that all human activity is fixed in time and place. Historic heritage experts (such as archaeologists and historians) constantly question existing knowledge of our collective past. This is because of new evidence becoming available (through excavation or declassification for example), or a change in the political or statutory framework. Heritage is subject to constant change and must, therefore, be reviewed to remain informed and robust rather than anecdotal.

- 4.16 Tables 3 and 4 and in the AEE (Section 9) review and address the rules for Precinct Plans and Overlays (Chapter D AUP). Section 9.2.3 (Table 5 AEE) addresses Auckland-Wide rules (Chapter E).
- 4.17 In Table 5 of the AEE the applicant states that that consent is sought to infringe rule E11.6.1(2)(d), providing for the disturbance of protected New Zealand objects as defined in the Protected Objects Act 1975 (**POA**). This infringement is a restricted discretionary activity. The matter of concern, as described in the AEE (at page 90), is the “potential location of structures used in the reclamation of Wynyard Point”, with the scope of the infringement described as relating to “protected objects only”.
- 4.18 Also in Table 5, the applicant states that consent is sought to infringe rule E26.7.5.1(2)(d) (also a restricted discretionary activity) providing for the disturbance of protected New Zealand objects. Again, this relates to the potential location of structures used in the reclamation of Wynyard Point, and the applicant states that the scope of this infringement relates to protected objects only.
- 4.19 E11.6.1 and E26.5.5.1 both contain “accidental discovery” rules and similar rules can be found in E12.
- 4.20 To the extent that the proposed works will occur in areas subject to the regional coastal provisions of the AUP, I note that the following provisions in Chapter F deal with historic heritage:
 - a) F.2.22.2.(1)(b) whether effects on the values of Historic Heritage Overlay areas have been avoided, remedied or mitigated;
 - b) F2.23.2(1)(f)(i) whether the proposal has included an assessment of Mana Whenua values and how any effects have been avoided, remedied or mitigated;
 - c) F2.23.2.(1)(h)(i) whether the proposals avoid, remedy or mitigate adverse effects on historic heritage.

- 4.21 Any sites or places of significance to Mana Whenua that are identified prior to, or discovered during use and development in the coastal marine area, must comply with the accidental discovery rules in E11 Land disturbance – Regional or E12 Land disturbance - District.
- 4.22 Please note I have not addressed sites and places of significance to mana whenua in this document as only mana whenua can make comments on these matters.
- 4.23 The AEE also notes (section 9.3) that proposed Plan Change 4 to the AUP (which concerns the correction of technical errors and anomalies in the AUP) has implications with regard to the reinstatement of view shafts to the Wynyard precinct (Chapter I214). As of 15 June 2018, PC 4 is under appeal.

5. Technical assessment of effects: Historic Heritage

- 5.1 In this section I provide a technical assessment of the proposal's effects on historic heritage, having regard to relevant provisions in the AUP.
- 5.2 As a general observation, the absence of a HIA and any detailed assessment of the AUP's historic heritage provisions makes the task of assessing the proposal's heritage impact more difficult.
- 5.3 As the proposal is non-complying all effects are relevant, including potential historic heritage effects.
- 5.4 Chapter D17 of the AUP is concerned with the Historic Heritage Overlay, and therefore unsurprisingly the objectives at D17.2 and policies at D17.3⁶ focus on scheduled heritage places. I acknowledge that there are no specific locations or areas identified through AUP Schedule 14.1 in the location of the proposal.
- 5.5 However, D17.1 *Archaeological sites or features* also clearly recognises the fact that only a small portion of Auckland's archaeological sites are identified in Schedule 14.1:

The proportion of archaeological sites within Auckland that are identified in Schedule 14.1 Schedule of Historic Heritage is low. Archaeological sites are subject to additional rules to manage activities that have the potential to adversely affect archaeological values, such as land disturbance, or disturbance of the foreshore or seabed. The accidental discovery rule in E12 Land disturbance - District applies in order to protect presently unknown archaeological values that may be discovered when works or development is undertaken.

It continues, under D17 *Unscheduled historic heritage*:

Much of Auckland's heritage has not been identified or evaluated to determine its significance.

⁶ These are both regional coastal plan and district plan provisions.

Some places that have been identified as having significant heritage values are not presently included in the historic heritage schedule, either because of incomplete information, lack of consultation with landowners, or for other reasons. Presently unscheduled historic heritage places that meet the criteria for scheduling will be evaluated for inclusion in the schedule through future plan change processes.

- 5.6 I believe there will be negative effects to historic heritage remains through the execution of parts of this proposal. However with no HIA supplied the difficulty arises in detailing these with any clarity.
- 5.7 The activities described in the application include reclamation, removal of maritime objects (crane and rail tracks, AHB bollards, cast iron plates and fittings, bluestone kerb/channel), severance of the Jellicoe Street sea wall and excavation and removal of fill layers deposited on the sea bed from 1900s to the 1930s.
- 5.8 Basic information regarding historic heritage in the area is available on the non-statutory CHI database. This is reproduced as **Figure 2** below, overlaid with the UNIO Locality Plan (Application Document 2). It shows clearly that historic heritage items are known to be located within and adjacent to the proposed areas of activity.
- 5.9 The likelihood of encountering contaminated fill is discussed in the Preliminary Site Investigation PSI (Document 31), yet the source of the contaminants is explained only as "fill" and not assessed in anyway with regard to potential historic heritage values. I note in passing that the source of the "fill" might have been identified through HIA research and potentially could have been used to assist the contamination specialists in identifying sources of contaminants beyond those already known. Fundamentally, the material deposited at the application location was placed there through human activity, directly related to maritime activity, nineteenth century industrial processes and waste removal from an urban area.
- 5.10 My concern regarding the reclamation is twofold, general and specific. As stated above (paragraph 5.9) the material used to reclaim this part of the sea bed is comprised of relocated earth, derivatives of the coal gas industry, organic waste (including timber hulks), processed iron or steel (boilers, fittings from vessels) and unknown random tipping. What cannot be known until PSI test pitting is undertaken is the level of preservation of this material across the activity area. High ground water levels will create anaerobic preservation conditions as will arid conditions. Areas of wetting and drying will have limited material preservation conditions. DSI testing informs us that the ground water is high near the Jellicoe Street wall therefore the potential for historic heritage to survive there is higher.
- 5.11 I also note that the severance of the Jellicoe Street sea wall has not been addressed. It would appear that utility connections must be made and avoidance is not possible, yet no remediation is specified nor any mitigation proposed. Discovery of the c. 1903 wall will not be accidental; therefore it is professional practice to record the historic heritage through appropriate conditions, or as part of a suite of procedures and conditions developed through an appropriate Historic Heritage Management Plan. In my opinion, this normal

AUP approach is appropriate and can be completed prior to any works commencing.

- 5.12 I consider the execution of elements of the proposal will have some negative effects on these historic heritage remains, although in the absence of a HIA it is difficult to assess the degree of effect.
- 5.13 Because of this uncertainty, I recommend that, if consent is granted, a robust set of conditions should be imposed to address potential adverse historic heritage effects (irrespective of the proximity of the activity to scheduled (14.1) sites).



Figure 2: Historic Heritage and UNIO plans combined. UNIO describe the red area as primary proposal, yellow areas for secondary construction and purple dashed as indicative event areas. The underlying AC GeoMaps information is the Cultural Heritage Inventory (CHI) number and site name. Blue squares indicate Historic structures, purple dots indicate a maritime site and pink dots indicate a Maori Heritage area.

Assessment of effects conclusion

- 5.14 Again, the applicant has not supplied an HIA to assist with the task of assessing the proposal's potential effects on the receiving environment for historic heritage in terms of the AUP and RMA provisions discussed above. In my opinion, the proposal is likely to have some adverse effects on historic heritage, however as discussed above it is difficult to assess the degree of potential effect.
- 5.15 Subject to the imposition of robust conditions to record all encountered material that is identified as historic heritage (see section 7 below), then the overall effects of the proposal can be minimised. While methods such as the recording of data and potential preservation of significant material in an appropriate institution is no substitute for *in situ* preservation, appropriate recording and interpretation can provide mitigation for destruction.
- 5.16 If the proposed conditions are implemented in full then any effects on historic heritage will be adequately addressed, and on this basis, the overall effects would be minor.

6. Relevant Submissions

- 6.1 At this time, 83 submissions have been received on this Application. Of this number, ten raise heritage matters directly, in part or in whole. Other submitters have referred to heritage matters which are not subject to heritage controls in the AUP and therefore cannot be addressed through this memo.
- 6.2 The submissions from Geraldine Speed (#22), Steward Speed (#23), John Wayne Mandeno (#60), Brett MacLean (#53), Brent Impey and Wendy Palmer (#61), and Russell Hall (#30) are substantially identical and raise an issue concerning view shafts. The identified view shaft is from Maungawhau Mount Eden, however, it is included within the Natural Heritage overlays only, not Historic Heritage, and therefore not subject to historic heritage controls in the AUP.
- 6.3 Robert Henry Brown (#25). The submitter is concerned that no indication is given in the application documents for berthing space to be made available for large heritage vessels such as the *William C Daldy*, floating crane *Rapaki*, or the Auckland ferry *Toroa*. The rules regarding such matters will be addressed by the Council planner, Nicola Broadbent. However, from my perspective it is desirable to consider the allocation of berthage for heritage vessels that reflect and enhance the maritime heritage of Waitemata.
- 6.4 Peter James McCurdy (#26). This submitter considers there is an ongoing loss of maritime heritage, both land-based items and floating vessels. The comment is made that there was an 'absence of consideration of heritage responsibilities' in the application documents. The relief sought by this submitter is twofold: first, berthage for heritage vessels and second, the inclusion of conditions that require there be no loss of material maritime heritage as a result of granting the resource consent. In the first matter, this will be responded to by Ms Broadbent. As to the second matter, the suggested conditions are set out below.

- 6.5 *William C Daldy* Preservation Society (#18). This Society has identified the loss of current berthage and no indication for a future berth for this restored 1935 vessel. Supporting documentation is presented. Statements are made regarding unique status of this type of steam tug and reference is made to the International Register of Heritage Steam Ships.
- 6.6 The World Ship Trust (1980-2014) used to play a leadership role in recording vessels of significance in the maritime heritage world. Since the Trust disbanded in 2014, a new organisation has arisen, the International Historic & Traditional Ships Panel (IHST), which sits within the International Congress of Maritime Museums. In summary, there is no mechanism for the protection of the ship from this or any other international listing. However, as it does appear in numerous international registers: the significance is clearly recognised internationally and this could indicate that the vessel would in fact have the potential to be protected by the provisions of the POA. This is a matter between the submitter and the Ministry for Cultural and Heritage and not a local government matter.
- 6.7 The Society (#18) seeks the retention of the *William C Daldy* in the area, however the AUP rules do not address this matter. The opportunity for future waterfront events to include the vessel is endorsed, as are their aspirations for maritime heritage representation. I support the ongoing presence of this vessel in future Waitemata heritage events.
- 6.8 Heritage New Zealand Pouhere Taonga (HNZPT) (#63). This submitter has reiterated its request for a heritage impact assessment by an appropriately qualified heritage professional. They note the application AEE has omitted to address the effects on two places listed in national legislation: the New Zealand Heritage List / Rārangi Kōrero 'Harbour Historic Area' (List number 7158), and the New Zealand Archaeological Association (NZAA) site R11/2901. This is a matter for the consenting planner to address.
- 6.9 The HNZPT submission notes the inadequacy in the Protocol (Document 8). Again, I consider that this Protocol is unnecessary and can be replaced by appropriate conditions.
- 6.10 HNZPT seek commitment from the Applicant / consent holder to retain and incorporate existing historic heritage elements of the industrial and maritime legacy of the area. I recommend conditions below to facilitate this discussion, if required.

7. Recommendation and conditions and advice notes

- 7.1 I recommend that, if consent is granted, the conditions set out at paragraph 7.5 below be imposed.
- 7.2 The heritage conditions supplied with the application (Application Document 7) include the following condition and the provision of a Protected Objects Protocol (Application Document 8):

Accidental Discovery of Protected Objects

45. In the event that works associated with the construction of infrastructure for the America's Cup Wynyard Hobson project reveal protected New Zealand objects as defined in the Protected Objects Act 1975 the Consent Holder shall implement the protected objects protocol in **Document 8** to the application.

Advice Note: *This condition applies separately and in addition to the requirements of the Heritage New Zealand Pouhere Taonga Act 2014.*

- 7.3 For reasons discussed above, I consider that this proposed condition 45 and the accompanying Protocol do not adequately address effects on historic heritage as interpreted in the RMA. I consider the matters referred to in condition 45 are better addressed through the established statutory processes under the control of Heritage New Zealand Pouhere Taonga and the Ministry for Culture and Heritage.
- 7.4 In terms of the current (RMA) process, potential effects on historic heritage are best addressed through the conditions and advice notes set out in paragraph 7.5 below, which put in place an appropriate process to require the consent holder to avoid, remediate or mitigate for the loss of any historic heritage material.

Conditions

- 7.5 I recommend that the following conditions be imposed, if consent is granted:

45. Historic heritage

The Consent Holder shall comply with the following requirements:

- a. A project archaeologist is to be nominated to monitor earthworks across the application area.
- b. The Consent Holder shall provide copies of the Detailed Site Investigation (DSI) and any updated geotechnical report/s to the project archaeologist. Upon reviewing this information and in consultation with the Team Leader Cultural Heritage Implementation, the archaeologist will determine whether any further monitoring is required.
- c. If further monitoring is required then the following actions shall apply:
 - i. The project archaeologist shall be appointed to oversee all earthworks including land clearance and building establishment earthworks where relevant;

- ii. Recording shall be undertaken in line with accepted archaeological practice and shall include (but not be restricted to) scaled digital photography and sketch plans;
 - iii. If the historic heritage material encountered sits outside Heritage New Zealand Pouhere Taonga Act or Protected Objects Act legislation, the material shall be offered to the National Maritime Museum (in the first instance) by the project archaeologist;
 - iv. If any historic heritage item, encountered through the execution of this consent and outside other legislation, is deemed of sufficient material stability and public interest to be retained, then the consent holder shall give consideration to the retention of this historic heritage in a location agreed by the consent holder and Team Leader Compliance Monitoring – Central within the application area. If an agreed location cannot be identified within the application area, provision shall be made for the historic heritage item to be safely stored until such time as an agreed location becomes available.
- d. At the completion of all earthworks monitoring, a report shall be prepared to provide a complete record of the historic heritage content of the site. This report must be provided within twelve (12) months of the completion of the earthworks to the Team Leader Compliance Monitoring - Central (for the Manager: Heritage Unit, heritageconsents@aucklandcouncil.govt.nz).
- e. The project archaeologist shall update the CHI records on the Auckland Council Cultural Heritage Inventory database within two months of the completion of all earthworks.

Advice Note:

Heritage New Zealand Pouhere Taonga Act 2014

The Heritage New Zealand Pouhere Taonga Act 2014 (hereafter referred to as the Act) provides for the identification, protection, preservation and conservation of the historic and cultural heritage of New Zealand. All archaeological sites are protected by the provisions of the Act (section 42). It is unlawful to modify, damage or destroy an archaeological site without prior authority from Heritage New Zealand Pouhere Taonga. An Authority is required whether or not the land on which an archaeological site may be present is designated, a resource or building consent has been granted, or the activity is permitted under the Auckland Unitary Plan Operative in part (November 2016).

According to the Act (section 6) archaeological site means, subject to section 42(3) –

- a) *any place in New Zealand, including any building or structure (or part of a building or structure), that –*
 - i. *was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where the wreck occurred before 1900; and*
 - ii. *provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand; and*

- b) *includes a site for which a declaration is made under section 43(1)*

It is the responsibility of the consent holder to consult with Heritage New Zealand Pouhere Taonga about the requirements of the Act and to obtain the necessary Authorities under the Act should these become necessary, as a result of any activity associated with the consented proposals.

For information please contact the Heritage New Zealand Pouhere Taonga Northern Regional Archaeologist – 09 307 0413 / archaeologistMN@historic.org.nz.

Protected Objects Act 1975 –

Māori artefacts such as carvings, stone adzes, and greenstone objects are considered to be tāonga (treasures). These are taonga tūturu within the meaning of the Protected Objects Act 1975 (hereafter referred to as the Act).

According to the Act (section 2) taonga tūturu means an object that –

- a) *relates to Māori culture, history, or society; and*
- b) *was, or appears to have been –*
 - i. *manufactured or modified in New Zealand by Māori; or*
 - ii. *brought into New Zealand by Māori; or*
 - iii. *used by Māori; and*
- c) *is more than 50 years old.*

The Act is administered by the Ministry of Culture and Heritage. Tāonga may be discovered in isolated contexts, but are generally found within archaeological sites. The provisions of the Heritage New Zealand Pouhere Taonga Act 2014 in relation to the modification of an archaeological site should to be considered by the consent holder if tāonga are found within an archaeological site, as defined by the Heritage New Zealand Pouhere Taonga Act 2014.

It is the responsibility of the consent holder to notify either the chief executive of the Ministry of Culture and Heritage or the nearest public museum (for Auckland this is the Auckland War Memorial Museum), which shall notify the chief executive, of the finding of the taonga tūturu, within 28 days of finding the taonga tūturu; alternatively provided that in the case of any taonga tūturu found during the course of any archaeological investigation authorised by Heritage New Zealand Pouhere Taonga under [section 48](#) of the Heritage New Zealand Pouhere Taonga Act 2014, the notification shall be made within 28 days of the completion of the field work undertaken in connection with the investigation.

Under section 11 of the Act, newly found taonga tūturu are in the first instance Crown owned until a determination on ownership is made by the Māori Land Court.

For information please contact the Ministry of Culture and Heritage – 04 499 4229 / protected-objects@mch.govt.nz.

8. Verification process

8.1 Technical memo prepared by:

Myfanwy Eaves
Senior Specialist: Archaeology,
Cultural Heritage Implementation
Team, Heritage Unit.

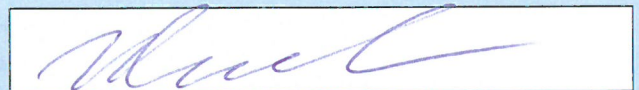


Date:

21/6/18

8.2 Memo reviewed by:

Noel Reardon
Manager, Heritage Unit



Date:

21/6/18

APPENDIX U
AMENDED SET OF PROPOSED CONDITIONS

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General

Definition of Terms

1. In these conditions:

- (a) "Event" means the use and operation of land and water space associated with 36th America's Cup event to be held in the six month period from December 2020 to May 2021 (including pack in and pack out of land based and water based activities/structures) and any subsequent America's Cup event(s) held during the ten (10) year period from the commencement of consent with a six month period each;
- (b) "Operations" means the use and operation of the syndicate bases (buildings and associated yards on land/wharves and water space) for a period up to ten (10) years from the commencement of consent;
- (c) "Infrastructure" means the wharves, piles, berths, buildings, other structures, and related works, services and access;
- (d) "certify", "certification" and "certified" in relation to plans or management plans means assessed by Council staff acting in a technical certification capacity, and in particular as to whether the document or matter is consistent with, or sufficient to meet, the conditions of this consent in terms of the matters set out in the conditions;

(e) "CMA" means the 'coastal marine area' as defined by the RMA;

~~(e)~~(f) "CMCA" means the 'common marine and coastal area' as defined in the RMAMarine and Coastal Area (Takutai Moana) Act 2011;

~~(g)~~(g) "Commencement of Construction" means commencement of any construction works for the Project or ~~(as the case requires)~~ commencement of any construction works for a part or stage of the Project, with the exception of site investigations and establishment of site fencing; ~~For the avoidance of doubt, it **excludes** site investigations, demolition and removal of buildings and structures, relocation of services and establishment of site entrances and fencing.~~

~~(g)~~(h) "consent holder" means Panuku Development Auckland;

~~(h)~~(i) "Council" means the Auckland Council;

~~(i)~~(j) "Harbourmaster" means the Harbourmaster's office within Auckland Transport;

~~(j)~~(k) "Project" means the construction, operation and management of the Infrastructure on land and water space to facilitate the Event;

(l) "Halsey Wharf" means the Halsey Street Extension Wharf and the Western Viaduct Wharf;

~~(k)~~(m) "Heavy vehicle" means a vehicle with a gross vehicle mass exceeding 3.5 tonnes;

(n) "Noise Event" means the planned use of a space or building involving amplified sound being broadcast to people and where the noise levels (excluding crowd noise) will not comply with the noise limits in Condition 194C.

Commented [A1]: I recommend amendments to definitions (e) and (f) for consistency with legislation.

Commented [A2]: I recommend changes to this definition for reasons explained in my report.

Commented [A3]: This definition recommended by B Coomer-Smit and A Crafer.

Commented [A4]: Recommended by J Styles.

~~(h)(o)~~ "RMA" means the Resource Management Act 1991;

~~(m)(p)~~ "Team Leader Compliance Monitoring – Central Monitoring" means the Team Leader Compliance Monitoring – Central Monitoring for the time being of the Council's ~~Resource Consent Licencing and Regulatory Compliance Department Monitoring unit;~~ and

Commented [A5]: This definition is amended throughout my and the experts' reports to correctly refer to the role.

~~(q)~~ "~~Team Leader – Coastal~~" means the ~~Team Leader – Coastal~~ for the time being of the Council's ~~Natural Resources and Specialist Input unit.~~

Commented [A6]: Team Leader Compliance Monitoring – Central covers this role.

~~(r)~~ "Alert Levels" means specific groundwater levels at which actions are required as described in the conditions.

Commented [A7]: This definition and those that follow relating to groundwater recommended by R Simonds.

~~(s)~~ "Commencement of Dewatering/Stabilisation" - means when ground improvements commence.

~~(t)~~ "Completion of Dewatering /Stabilisation" means - when all ground improvements are complete.

~~(u)~~ "GWMCP" - means Groundwater Monitoring and Contingency Plan.

~~(v)~~ "Monitoring Station" - means a groundwater monitoring borehole.

~~(w)~~ "Seasonal Low Groundwater Level" - means the annual lowest groundwater level – which typically occurs in summer.

~~(x)~~ "Services" means - including fibre optic cables, sanitary drainage, stormwater drainage, gas and water mains, power and telephone installations and infrastructure, road infrastructure assets such as footpaths, kerbs, catch-pits, pavements and street furniture.

~~(y)~~ "Damage" means - including Aesthetic, Serviceability, Stability, but does not include Negligible Damage as described in the table below:

<u>Building Damage Classification</u>			
<u>Category of Damage</u>	<u>Normal Degree of Severity</u>	<u>Description of Typical Damage</u> <i>(Building Damage Classification after Burland (1995), and Mair et al (1996))</i>	<u>General Category</u> <i>(after Burland – 1995)</i>
<u>0</u>	<u>Negligible</u>	<u>Hairline cracks.</u>	<u>Aesthetic Damage</u>
<u>1</u>	<u>Very Slight</u>	<u>Fine cracks easily treated during normal redecoration. Perhaps isolated slight fracture in building. Cracks in exterior visible upon close inspection. Typical crack widths up to 1mm.</u>	

<u>2</u>	<u>Slight</u>	<u>Cracks easily filled. Redecoration probably required. Several slight fractures inside building. Exterior cracks visible, some repainting may be required for weather-tightness. Doors and windows may stick slightly. Typically crack widths up to 5mm.</u>	
<u>3</u>	<u>Moderate</u>	<u>Cracks may require cutting out and patching. Recurrent cracks can be masked by suitable linings. Brick pointing and possible replacement of a small amount of exterior brickwork may be required. Doors and windows sticking. Utility services may be interrupted. Weather tightness often impaired. Typical crack widths are 5mm to 15mm or several greater than 3mm.</u>	<u>Serviceability Damage</u>
<u>4</u>	<u>Severe</u>	<u>Extensive repair involving removal and replacement of walls especially over door and windows required. Window and door frames distorted. Floor slopes noticeably. Walls lean or bulge noticeably. Some loss of bearing in beams. Utility services disrupted. Typical crack widths are 15mm to 25mm but also depend on the number of cracks.</u>	
<u>5</u>	<u>Very Severe</u>	<u>Major repair required involving partial or complete reconstruction. Beams lose bearing, walls lean badly and require shoring. Windows broken by distortion. Danger of instability. Typical crack widths are greater than 25mm but depend on the number of cracks.</u>	<u>Stability Damage</u>

Note: 'Description of Typical Damage' applies to masonry buildings only. The 'General Category' applies to all buildings.

Condition Precedents-Conditions Precedent

- The consent holder will not undertake construction or development on land the subject of this consent in Wynyard Point prior to confirmation that the necessary part of Brigham Street can be stopped as public road (as shown on Beca Plan Drawing Number 3233847-CA-4101 Rev B) with the exception of any enabling works either as authorised under this consent or a separate consent for such necessary early commencement works. The confirmation must be provided to the Team Leader Compliance Monitoring – Central as soon as practicable and prior to the Commencement of Construction.
- The consent holder will not allow occupation by any America's Cup team of any of Bases F and G prior to the storage operations on the Bulk Services Terminal site ceasing and evidence has been provided to the Council that those facilities have been closed.

Commented [A8]: Recommended by B Coomer-Smit and A Crafer.

Coastal Permit – RMA Section 12(1) and 12(3) (Commencement & Duration/Expiry) of Consents

- ~~The Consent to erect the structures in the CMA under section 12(1) of the RMA and to carry out the Event on the structures in the CMA under section 12(3) of the RMA will commence in accordance with section 116(1) of the RMA and will expire pursuant to section 123(c) of the RMA ten (10) years from the date it commences, unless it has lapsed, has been surrendered or has been cancelled at an earlier time. Pursuant to sections 116 and 123 of the RMA, the commencement and duration for the various resource consents shall be as set out in the table below:~~

Commented [A9]: I have endeavoured to list the consents and details of the duration and commencement for each in table form, for clarity.

<u>Consent</u>	<u>Duration (unless the consent has lapsed, been surrendered, or been cancelled at an earlier time)</u>	<u>Commencement</u>
<u>Land use consents (for the establishment of temporary structures associated with the America's Cup, land disturbance activities, including earthworks, NES consent for disturbance of contaminated soils, and tree removal) and for the Event</u>	<u>(a) Consents for the Event and temporary structures: 10 years from commencement</u> <u>(b) For all other land use consents: 5 years from commencement</u>	<u>In accordance with section 116(1)</u>
<u>Consent to construct structures in the CMA and to occupy for construction purposes under section 12</u>	<u>5 years from commencement</u>	
<u>Consent to carry out the Event on the structures in the CMA under section 12</u>	<u>10 years from commencement</u>	
<u>Occupation of the CMCA for the Base B structure under section 12</u>	<u>10 years from commencement</u>	
<u>Consent to occupy the CMCA under section 12 following completion of construction</u>	<u>35 years from commencement</u>	
<u>ITA discharge consent</u>	<u>10 years from commencement</u>	<u>In accordance with section 116(1)</u>
<u>Stormwater diversion and discharge consent</u>	<u>35 years from commencement</u>	
<u>Consent to discharge contaminants into air associated with storage of the dredged materials and use of cement during construction</u>	<u>5 years from commencement</u>	
<u>Consent for capital works dredging within the CMA to facilitate construction of the coastal structures and create adequate depths for the boats</u>	<u>10 years from commencement</u>	

Commented [A10]: The applicant has sought 10 years. I consider 5 years is sufficient.

<u>Consent for diversion of ground water associated with ground stabilisation works</u>	<u>35 years from commencement</u>
<u>Consent to discharge of contaminants to land and water as a result of storage of the dredged material and potential use in construction</u>	<u>5 years from commencement</u>

Commented [A11]: The applicant has sought 10 years. I consider 5 years is sufficient.

Coastal Permit – RMA Section 12(2) (Commencement & Expiry)

5. **[Not used]** ~~The Consent to occupy the CMCA under section 12(2) of the RMA will commence on the date the construction of the structures in the CMA is complete (as notified to the Team Leader – Coastal pursuant to Condition 44), and expire pursuant to section 123(c) of the RMA thirty five (35) years after it commences, unless it has lapsed, been surrendered or been cancelled at an earlier time.~~

Removal of Structures/Reinstatement

6. The buildings for syndicate bases B-G shall be removed no later than ten (10) years following the commencement of consent (**Base Removal Works**).
- 6A. ~~The Consent Holder shall give at least six months written notice to the Team Leader Compliance Monitoring - Central prior to the commencement of any Base Removal Works, such notice to be accompanied by a draft Removal and Reinstatement Works Management Plan (RRWMP) in accordance with condition 7B for the Council's approval.~~
7. No less than 50% of Wynyard Wharf wharf infill shall be removed no later than ten (10) years following the commencement of consent (**Infill Removal Works**).
- 7A. ~~The Consent Holder shall give at least six (6) months written notice to the Team Leader Compliance Monitoring - Central prior to the commencement of the Infill Removal Works, such notice to be accompanied by a draft RRWMP in accordance with condition 7B for the Council's approval.~~
- 7B. ~~When giving notice to the Council in accordance with conditions 6A and/or 7A, the Consent Holder shall lodge with the Council for its approval a draft RRWMP (either a single comprehensive RRWMP for all works, or individual RRWMPs). The draft RRWMP shall provide full details of the relevant Base Removal Works and/or Infill Removal Works, including:~~
- ~~a) the proposed demolition / removal methodology, including sequence and timing;~~
 - ~~b) duration of works and hours of operation;~~
 - ~~c) measures to manage environmental effects, including (but not limited to) dust, construction noise, and construction traffic effects;~~
 - ~~d) the reinstatement and legacy / post-America's Cup uses of the site(s) following completion of the demolition / removal works, including;~~

Commented [A12]: I recommend amendments to this section to require a Removal and Reinstatement Works Management Plan for the reasons explained in my report.

- In the case of Wynyard Wharf, the reinstatement of public pedestrian and cycling access along the coastal edge to a minimum width of 20m; and
- In the case of Hobson Wharf, details concerning the ongoing use of the Hobson Wharf extension following the removal of Base B;

Commented [A13]: This requirement is recommended by R Skidmore.

e) a communication plan, including details of:

- any communication undertaken with neighbours in advance of demolition commencing;
- procedures for receiving and resolving complaints during demolition and site reinstatement;

f) procedures for reviewing the RRWMP(s).

7C. All Base Removal Works and/or Infill Removal Works shall be carried out in accordance with the approved RRWMP(s).

Lapse

8. Pursuant to section 125 of the RMA, this consent lapses five years after the date it is granted unless it has been cancelled, surrendered, or given effect to at an earlier date pursuant to the RMA.

Access to the Site

9. The servants or agents of the Council shall have access to all relevant parts of the site at all reasonable times for the purpose of carrying out inspections, surveys, investigations, tests, measurements and/or to take samples.

Monitoring

10. The consent holder shall pay the Council an initial consent compliance monitoring charge of ~~\$3,000.00~~\$30,000.00 (inclusive of GST), plus any further monitoring charge or charges to recover the actual and reasonable costs that have been incurred to ensure compliance with the consents.
11. The ~~\$3,000.00~~\$30,000.00 (inclusive of GST) charge shall be paid prior to the commencement of construction and the consent holder will be advised of the further monitoring charge or charges as they fall due. Such further charges are to be paid ~~within one month of the date of invoice~~as required by the invoice.

Commented [A14]: I recommend an increased monitoring charge for this application. \$30,000 is a more accurate reflection of the estimated monitoring costs.

Review Conditions

General Section 128 Review Conditions

12. Pursuant to section 128 of the RMA, the conditions of the consent may be reviewed by the Council (at the consent holder's cost):
- a) At any time during the construction period in relation to activities and structures that are subject to the provisions in sections 15 and 16 of the RMA and where the best practicable option may be necessary to remove or reduce any adverse effect on the environment;

Commented [A15]: I recommend the following amendments to the s128 review conditions, as discussed in my report.

- b) At any time during the construction period, and thereafter in the month of November annually for 105 years, and thereafter at 5 yearly intervals, in relation to altering any monitoring requirements as a result of ~~previous~~ monitoring ~~outcomes~~ ~~results~~ and/or in response to changes to the environment, and/or changes in engineering and/or scientific knowledge; and
- c) Within six (6) months from the date the Team Leader Compliance Monitoring - Central-Coastal is notified of completion of the final stage of construction work (in accordance with Condition 44), and thereafter in the month of November annually for 105 years, and thereafter at 5 yearly intervals, to deal with any adverse effect(s) on the environment which may arise from the exercise of the consent.
- c)d) At any time during an Event, to deal with any adverse effect(s) on the environment which may arise from the exercise of the consent.

Commented [A16]: I have recommended a specific month for the initiation of any review in terms of b) and c).

Transport Evaluation Conditions

12A. Transport Evaluation Reports (TERs) shall be provided to the Team Leader Compliance Monitoring – Central and Auckland Transport, on a staged basis as appropriate to reflect Project staging, on each of the following occasions:

- a) During the construction phase, one or more TERs shall be lodged within two (2) months of commencement of a Project stage to evaluate the effectiveness of all traffic management plans required during the construction phase;
- b) During the operational phases, one or more TERs shall be lodged on 31 October 2020 and for subsequent operational phases after AC36, six (6) months prior to the start date of any future AC (Defender series) Event, to evaluate the effectiveness of all traffic management plans required during the operational phase for Wynyard Point, Halsey Wharf and Hobson Wharf;
- c) During the event phases (AC36, AC37 and AC38), one or more TERs shall be lodged within ten (10) working days after the completion of any major race series pursuant to this consent (i.e. the Christmas Regatta, the Challenger Series (Prada Cup), and the America's Cup, or any similar future events or regattas).

12B. The measures used to assess effectiveness will be developed in conjunction with the Council and Auckland Transport and will include (as relevant):

- a) During the construction phase:
 - i. an assessment of construction traffic effects on the safety of all transport modes in the Wynyard and Viaduct Precincts;
 - ii. the effectiveness of the Construction Staff Travel plans and On-street Parking Management Plans; and
 - iii. the effectiveness of plans that are put in place to mitigate effects to other businesses and their accesses during construction.
- b) During the operational and event phases:
 - i. an assessment of the safety of pedestrians and people cycling to and from the bases;

Commented [A17]: I, with direct input from (and relying on the report of) B Coomer-Smit and A Crafer, recommend requiring a review of transport matters as provided for in the conditions that follow, for the reasons outlined in my and their reports.

- ii. the effectiveness of the Syndicate Staff Travel plans and On-street Parking Management Plans;
- iii. the effectiveness of the Site Servicing, Delivery and Guest Transport Plans; and
- iv. the effectiveness of the Event Management Plan, Event Transport Plan, Public Transport Management Plan, Pedestrian and Cyclist Management Plan, and the Traffic and Parking Management Plan.

12C. The findings in the TERs shall be used to revise the various traffic, parking and transport plans, and shall inform the preparation of any plans that are yet to be prepared as at the date of the TER. If a TER concludes that any of the transport management plans are not effective to address adverse effects on the transport network, additional mitigation measures (to be approved by the Team Leader Compliance Monitoring – Central in consultation with Auckland Transport) shall be provided by the consent holder within an agreed timeframe, and at the cost of the consent holder.

Advice Note: For any TER provided pursuant to condition 12A(c) above, the intention is that any additional mitigation will be provided prior to the start of any major event and commencement of any subsequent event. For instance, if an adverse effect is identified in a TER following the Christmas Regatta 2020, the additional mitigation shall be implemented prior to the commencement of the Challenger Series 2021 (Prada Cup).

12D. In addition to the process set out in Conditions 12A to 12C above, the Council may in its discretion, within two (2) months of receiving a TER, initiate a review of the conditions of consent pursuant to section 128 of the RMA to address any adverse effects identified by the TER.

Development and Activities in Accordance with Infrastructure Application Plans and Information

- 13. Construction and the activities authorised by these consents of the physical Infrastructure shall be undertaken in ~~general~~ accordance with the drawings and all information submitted with the application, as detailed in the Annexure to these consents, provided in Document DS5, referenced by the Council as XX/XX/XXXX.
- 14. In the event of inconsistency between:
 - (a) the plans and documents referred to in Condition 13 and the Annexure and the conditions of this consents that follow, the following conditions shall prevail; and
 - (b) the plans and documents detailed in the Annexure and the briefs of evidence filed by the applicant, the evidence shall prevail.

Management Plan Certification / Approval Process

- 15. Conditions 16 to 21 ~~below~~ shall apply to all Management Plans required by these conditions.
- 16. ~~Unless otherwise specified in the conditions that follow,~~ Management Plans shall be submitted to the Team Leader Compliance Monitoring – Central Monitoring either for certification or approval (as specified in the applicable condition) in writing (excluding site

Commented [A18]: The applicant's version of Condition 13 applied only to the drawings contained in Document DS5. I consider that the conditions should apply to all drawings, application documents and further information responses with a consenting purpose.

Commented [A19]: I am conscious that the evidence to come may supersede aspects of the plans and documents and have recommended this condition accordingly.

Commented [A20]: I propose the approval, rather than certification, of a small number of management plans required by conditions that follow. I recommend that this section provide for approval of those management plans accordingly.

¹ To be updated when consent references are issued by Council.

~~investigations, demolition and removal of buildings and structures, relocation of services and establishment of site entrances and fencing~~). Management Plans shall be submitted at least 20 working days prior to Commencement of Construction unless otherwise specified in the conditions.

Advice Note: Any preliminary works, which do not need resource consent / are permitted activities can be undertaken prior to any Management Plan(s) being certified / approved.

17. Management Plans may be submitted in parts or in stages to address particular activities or to reflect ~~the a~~ staged implementation of the Project. Management Plans submitted shall clearly show the linkage with plans for adjacent stages and interrelated activities.

Advice Note: Under condition 32, the Consent Holder is required to address in the CEMP construction works programming, including confirmation of the proposed staging and sequence of construction of the Project.

18. Should the Team Leader Compliance Monitoring – Central ~~Monitoring~~ refuse to certify or approve a Management Plan, or a part or stage of a Management Plan, in accordance with Condition 16 above, the consent holder shall submit a revised Management Plan for certification or approval as soon as practicable. The certification / approval process shall follow the same procedures as outlined in Condition 15 above.

19. Any certified / approved Management Plan may be amended if necessary to reflect ~~any~~ minor changes in design, construction methods or ~~to management of~~ effects. Any amendments are to be ~~discussed with and submitted to agreed by~~ the Team Leader Compliance Monitoring – Central ~~Monitoring~~ in writing prior to implementation of any changes for information, unless the Team Leader – Central Monitoring determines that ~~these amendments once implemented would result in a materially different outcome to that described in the original plan.~~

20. Any changes to a certified / approved Management Plan submitted for consideration under Condition 19 involving a materially different outcome under Condition 19 shall be submitted to the Team Leader – Central Monitoring to certify that they comply with the applicable requirements of these conditions. Any ~~material change~~ must be consistent with the purpose of the relevant Management Plan and the requirements of the relevant conditions of these consents. Where a Management Plan was prepared in consultation with affected parties, any material changes to that Plan shall be prepared in consultation with those same parties. A “material change” is an amendment, which the Team Leader Compliance Monitoring – Central determines would (once implemented) result in a materially different outcome to that described in the original Management Plan.

21. All works shall be carried out in ~~general~~ accordance with the certified / approved Management Plans.

Mana Whenua Engagement

22. Prior to the commencement of any construction activities authorised by this consent, the consent holder shall provide a copy of the evidence to the Council that it has prepared a Mana Whenua Engagement Plan (MWEP) for the Project to the Team Leader Compliance Monitoring – Central. The purpose of the MWEP is to facilitate engagement between the consent holder and mana whenua in relation to the activities authorised by this consent,

Commented [A21]: I recommend the inclusion of this advice note to provide that preliminary works which do not need consent, can be undertaken prior to certification/approval of management plans.

Commented [A22]: I recommend these amendments to Conditions 19 and 20 to tighten up the process for changing certified/approved management plans.

Commented [A23]: I recommend describing the purpose of the MWEP more explicitly, and suggest there be a reference to the role of mana whenua as kaitiaki. A copy of the MWEP should also be provided to the Council.

and to assist mana whenua to fulfil their role as kaitiaki. Mana whenua groups shall be provided with an opportunity to be actively involved with the formulation and implementation of the MWE~~P~~. The MWE~~P~~ shall be formulated and implemented in collaboration with those mana whenua groups that wish to participate. As a minimum, the MWE~~P~~ shall include details of the following matters:

a) The objective(s) for the MWE~~P~~:

a)b) How mana whenua who have expressed an interest in the Project because of their historic associations with the Project area and its surrounding waters have been involved in the formulation of the MWE~~P~~ and are to be involved in its implementation;

b)c) The process for involvement of mana whenua in the final preparation of the engineering design, construction management, and operational plans as they relate to:

- (i) Managing water quality during the construction and operation of the Infrastructure;
- (ii) Managing underwater noise during construction so as to protect marine animals;
- (iii) Protecting the waters of the area from biosecurity risks;
- (iv) Providing cultural markers within the Infrastructure to recognise the historic associations of mana whenua with the area and the significance of the land and seascapes of Tikapa Moana to mana whenua; and
- (v) Enabling use of the Infrastructure for cultural activities.

c)d) Accidental discovery protocols;

d)e) Procedures for the cultural induction of construction workers and Event staff;

e)f) Timing, frequency, location and methods of cultural monitoring procedures and protocols during construction activities to demonstrate achievement of the objective(s) for the MWE~~P~~; and

f)g) Ongoing mana whenua engagement procedures.

Pre-construction Conditions

Base Design - Buildings, Structures and Yard Areas Design

23. Unless specified by Condition 24 below, Bases A – G shall be constructed in accordance with the Moller Architects drawings specified in **Document DS4**. The consent holder shall submit detailed design drawings and supporting information for the following ~~building and yard structures~~ elements as specified below relating to base buildings, structures and yard areas to the Team Leader – Central Monitoring for certification prior to construction:

a) Base A

- (i) Yard and security fencing design; and
- (ii) Signage (including sponsor signage) and Event branding.

b) Bases B - G

- (i) Building materiality, colour and finish;
- (ii) Building façade detailing and treatment for all facades and the roof with particular focus on elements fronting and interfacing directly with wharf public space areas;

Commented [A24]: Recommended by P Kensington and R Skidmore.

Commented [A25]: R Skidmore recommends that signage also be addressed in this condition here, and in b) below.

- (iii) External (including rooftop) services, plant equipment, and any integrating or screening treatment / elements;
- (iv) Yard and security fencing design; ~~and~~
- (v) Signage (including sponsor signage) and Event branding; and
- (vi) Any ground vapour mitigation measures required to protect occupants of enclosed structures as determined by the detailed site investigation report and vapour risk assessment.

The design of these elements shall be consistent with the amended America's Cup Wynyard Hobson Building and Public Space Design Guidelines, dated 10 April 2018 contained in Document 13, and a report, prepared by a suitably qualified and experienced person, confirming this consistency shall be provided as part of the drawings and information required above.

24. Where the design of Bases B – G is proposed to not be in accordance with the Moller Architects drawings in **Document DS4**, in addition to the requirements of Condition 23, the consent holder shall submit alternative design drawings to the Team Leader – Central Monitoring for approval certification prior to construction, and The design drawings shall demonstrate which show compliance with the following requirements:

- a) Building height shall not exceed a maximum of 15m above finished wharf or finished ground level;
- b) The building footprint shall comply with the Building Footprint areas shown on Beca Plan Civil Drawing Number 3233847-CA-4101 Rev B;
- c) The yard areas shall not extend beyond the Syndicate Base Boundary shown on Beca Plan Civil Drawing Number 3233847-CA-4101 Rev B;

The new design of the base buildings, structures and related yard areas shall be in terms of the amended Wynyard Hobson Building and Public Space Design Guidelines, dated 10 April 2018 contained in Document 13. A report prepared by a suitably qualified and experienced person, confirming this consistency shall be provided to certify that they comply with a) – c) above.

Advice note: *The purpose of Condition 24 is to ensure that any proposed changes to design will not result in additional adverse visual or amenity effects on the surrounding environment and is intended to provide an alternative process to a formal s127 variation or consent application for design changes within the scope of the consent, excepting that Council reserves the right to require the consent holder to make a s-127 application, or, as appropriate, new application for resource consent, if necessary.*

Public Space Design

25. The consent holder shall ensure that the design of public spaces is consistent with the amended Wynyard Hobson Building and Public Space Design Guidelines, dated 10 April 2018 contained in **Document 13** and shall submit drawings and a report, prepared by a suitably qualified and experienced person, confirming this consistency to the Team Leader – Central Monitoring for certification at least twenty (20) working days prior to construction.

- 25A. Public Space design features as outlined in the amended Wynyard Hobson Building and Public Spaces Design Guidelines shall be implemented prior to occupation of the America's Cup bases.

Commented [A26]: Recommended by R Van de Munckhof in his NES report.

Commented [A27]: Recommended by R Skidmore to refer to the updated version of the Guidelines.

Commented [A28]: R Skidmore recommends amendments to Guidelines. Date would need to be updated accordingly.

Commented [A29]: "Approval" rather than certification recommended for condition 24 by R Skidmore.

Commented [A30]: R Skidmore recommends amendments to Guidelines. Date would need to be updated accordingly.

Commented [A31]: R Skidmore recommends amendments to Guidelines. Date would need to be updated accordingly.

Commented [A32]: Recommended by R Skidmore.

Commented [A33]: Recommended by R Skidmore.

Road Design and Layout

- 25B. The detailed design and construction of vehicle, pedestrian and cyclist access to the Wynyard Point bases, Hamer Street footpath and the internal Access Lane of the bases shall be completed to the satisfaction of Team Leader Compliance Monitoring – Central in consultation with Auckland Transport. The design shall be in general accordance with Beca Drawing 3233847-CA-4201, Revision B, Wynyard Point Works Civil Drawing 1, General Arrangement Plan, and McIndoe Urban Boffa Miskell Drawing Wynyard Point Bases Public Realm Integration, Date 13 April 2018, Revision A. The design of the Access Lane shall have specific input from road safety engineers who have experience in the design of shared zones.
- 25C. The final design of the Access Lane shall be subject to a Stage 3 and Stage 4 Road Safety Audit and subject to the approval by Team Leader Compliance Monitoring - Central in consultation with Auckland Transport. The road safety audit shall be undertaken by an independent and suitably qualified engineer and any serious or significant concerns identified in the road safety audit shall be appropriately addressed by the consent holder.
- 25D. The detailed design and construction of the Northern Connector Road shall be to the satisfaction of Team Leader Compliance Monitoring - Central in general accordance with the concept design given in Figure 4-4 of the Beca Traffic and Transport Technical Report, April 2018 report, with changes to the design including that the right turn movement from the Northern Connector Road into the Access Lane serving the bases has to give way to westbound through traffic on the Northern Connector Road and that pedestrian and cyclist connections shall be retained between Daldy Street/Jellicoe Street and North Wharf/Silo Park through the provision of appropriate facilities, and onward to join Hamer Street and the Access Lane
- 25E. All works in the road reserve shall be finalised by Engineering Plan Approval process and be in compliance with Auckland Transport's engineering standards. Any permanent traffic and parking changes within the road reserve as a result of the development will require approval from the Auckland Transport Traffic Control Committee (ATTCC). The proposed traffic and parking changes shall be prepared by a qualified traffic engineer and approved by ATTCC so that the changes to the road reserve can be legally implemented and enforced. The resolution process will require public consultation to be undertaken in accordance with Auckland Transport's standard procedures. It is the responsibility of the consent holder to prepare and submit a permanent Traffic and Parking Changes report to Auckland Transport Traffic Control Committee for review and approval.
- 25F. All vehicle crossing to the bases over the Hamer Street and Northern Connector Road footpaths shall be designed and constructed to the same levels as the footpaths, using the same materials, kerbing, paving, patterns and finish as the footpath, on each side of the crossing.

Commented [A34]: B Coomer-Smit and A Crafer recommend these conditions relating to roading design and layout.

Detailed Engineering Drawings and Details

26. At least twenty (20) working days prior to Commencement of Construction for the relevant Project stage (excluding site investigations, demolition and removal of buildings and structures, relocation of services and establishment of site entrances and fencing), the Consent Holder shall submit detailed engineering designs and drawings of structures in the CMA (including dimensioned cross sections, elevations, site plans of all areas of permanent and temporary structures) to the Team Leader Compliance Monitoring – Central

~~Monitoring~~, to be prepared in accordance with the documents in **Document DS5** to the application.

27. The consent holder shall ensure that new wharf piles are designed:
- a) For a future 1m increase in the height of the wharf deck that can be staged over several increments over the next 100 years; and
 - b) To recognise the marine environment risk factors of corrosion due to chloride attack.

As-Built Drawings

28. Within three (3) months of Completion of Construction for each stage of construction (wharves, services and buildings on each base), the ~~C~~consent ~~H~~holder shall supply a complete set of As-Built Drawings to the Team Leader Compliance Monitoring – Central ~~Monitoring~~. The As-Built Drawings shall show the location, dimensions and typical cross-sections of structures and services.

28A. Within twenty (20) working days of the completion of construction activity in the CMA, the consent holder shall supply a copy of the 'as built' plans to the New Zealand Hydrographic Authority (Land Information New Zealand, Private Box 5501, Wellington 6011 or customersupport@linz.govt.nz). The As-Built drawings shall relate to all activities in the CMA, including finished dredged depths, wharves, breakwaters and other and structures that are appropriate for inclusion on Hydrographic Charts.

Commented [A35]: Self-explanatory addition.

Construction Environmental Management Plan

29. The ~~C~~consent ~~H~~holder shall prepare a **Construction Environmental Management Plan** (CEMP) for the relevant Project stage, and submit this to the Team Leader Compliance Monitoring – Central ~~Monitoring~~ for certification that the CEMP has addressed the matters required by Conditions 30 to 36.

30. The purpose of the CEMP is to ensure that the construction works remain within the limits and standards approved under the consent and set out the management procedures and construction methods to be undertaken in order to avoid, remedy or mitigate potential adverse effects arising from construction activities.

31. The CEMP shall incorporate or refer to the following management plans and documents:

- a) Management Plan for Dredging and Placement of Mudcrete in the CMA (MPDPM);
- b) Site-Specific Erosion and Sediment Control Plan (SSESCP);
- c) Remediation Action Plan (RAP);
- d) Groundwater Monitoring and Contingency Plan (GWMCP);
- e) Construction Traffic Management Plan (CTMP);
- f) Construction Staff Travel Plan (CSTP);
- g) Construction Noise and Vibration Management Plan (CNVMP);
- h) Construction Lighting Management Plan (CLMP);
- i) ~~Decommissioning~~ Biosecurity Management Plan (~~DB~~BMP); ~~and~~

- j) Inner Viaduct Harbour and Wynyard Wharf South Water Space Environmental Management Plan (IVHWWSEMP)

Commented [A36]: Consequential change in response to recommendation by K Sivaguru.

Commented [A37]: Consequential change in response to recommendation by S Morgan.

k) Navigation and Safety Management Plan (NSMP); and

j) Project Geotechnical Design Report (PGDR).

32. The CEMP shall provide details of the responsibilities, reporting frameworks, coordination and management required for effective site management. The CEMP shall provide information on the following matters:

a) Construction quality assurance;

b) Construction works programming, including:

i. An outline construction programme;

ii. Confirmation of the proposed staging and sequence of construction;

iii. The open area of earthworks throughout the construction;

iv. the indicative timing of the submission of Site Specific Erosion and Sediment Control Plans to be submitted to Council for approval of each stage;

c) Construction traffic management;

d) Site management;

e) Wharf, breakwater, berthage and building construction;

f) The geotechnical-related earthworks matters addressed in condition 135B(b);

g) Consultation and communications; including the methods for communicating and consulting with the Community Liaison Group (CLG) (see conditions 44A to 44D) and

g) Construction lighting.

Commented [A38]: Recommended by C Moss.

Commented [A39]: Consequential change in response to C Brightman's recommendation for a PGDR.

Commented [A40]: Recommended by F Harte.

Commented [A41]: Consequential change in response to the new condition 135B recommended by A Khan.

Commented [A42]: Consequential change in response to the new conditions 44A to 44D that I recommend.

Construction Quality Assurance

33. This part of the CEMP requires the establishment of management frameworks, systems and procedures to ensure quality management of all on-site construction activities and compliance with the conditions of this consent. This section shall provide details on the following:

a) Contact details of the Contractor's site supervisor or project manager and the Consent Holder's Project Liaison Person (phone, postal address, email address);

b) Confirmation of the construction methodology, including for permanent and temporary structures;

c) System for Hot Work Permits and Underground Services Work Protocols/Permits in general accordance with the Construction Environmental Management Plan Draft Table of Contents in Appendix B, America's Cup 36 Physical Infrastructure Technical Report (Beca, April 2018) (for information only);

d) Location of construction site infrastructure including site offices/amenities, contractors' yard access, equipment unloading and storage areas, construction access to the CMA, contractor car parking and security;

e) Methods and systems to inform and train all persons working on the site of potential environmental issues and how to avoid remedy or mitigate any potential adverse effects;

f) Procedures for ensuring that residents, businesses, network utility operators and road users in the immediate vicinity of construction areas are given prior notice of the

Commented [A43]: Recommended by B Coomer-Smit and A Crafer – see CTMP requirement, no parking is allowed for contractors on-site.

Commencement of Construction and are informed about the expected duration and effects of the work;

- g) Procedures for responding to complaints about construction activities;
- h) Means of providing for the health and safety of the general public;
- i) Measures to be adopted to maintain the CMA and land affected by the works in a tidy condition in terms of disposal / storage of rubbish, storage and unloading of construction materials and similar construction activities;
- j) Procedures for controlling sediment run-off, dust and the removal of soil, debris, demolition and construction materials (if any) from public roads or places adjacent to the work site/s;
- k) Contingency plans in case of unexpected sediment discharges to the CMA during works;
- l) Proposed temporary or permanent fencing or other structures along the boundary of the construction areas with adjacent sites in order to delineate site boundaries, maintain site security, prevent unauthorised access, ensure the safe and practical operation of adjacent sites, and to avoid intrusion of construction works beyond the construction area;
- m) Measures to manage the potential impacts of construction on Council street trees and vegetation;
- n) Measures to manage the potential impacts of ~~temporary~~ construction lighting on residents, businesses and on local fauna;
- o) Methods to ensure that barges and equipment used in the CMA are clean and certified as free of invasive species identified by the Ministry of Primary Industries;
- p) Procedures for the refuelling, cleaning, maintenance and storage of plant and equipment, methods to be used to minimise the need for these activities in the CMA, and measures to avoid discharges of contaminants from these activities in the CMA;
- q) Measures to address the storage of fuels, lubricants, hazardous and/or dangerous materials, along with contingency procedures to address emergency spill response(s) and clean up;
- r) Procedures for incident management; ~~and~~
- s) Site clean-up following completion of works, including removal of construction materials, temporary structures, ~~and~~
- t) Measures to monitor and minimise discharges of dust and odour so that any offensive or objectionable effects are immediately identified and mitigated.

Commented [A44]: This should refer to businesses also.

Commented [A45]: Recommended by P Crimmins.

Construction Works Programme

34. This part of the CEMP is to ensure that the consent holder has prepared a programme of works that will enable the Infrastructure and all other associated land based works, to be constructed in a manner that is timely, adequately co-ordinated and minimises the adverse effects of construction on ~~the~~ existing users of the affected land and water space. This section shall, among other matters, provide details of the programme for the construction works throughout all stages of the Infrastructure development process.

Site Management

35. This part of the CEMP is to ensure that procedures are in place to ensure that the site is managed safely and in an appropriate condition throughout the entire construction process. This section shall provide details on the following:
- The clear identification and marking of the construction zone within the CMA and the provision of any necessary navigational aids and information to ensure safe and effective access by other parties through the construction zone;
 - The extent to which barges and other machinery are expected to operate within the affected water space and the measures that will minimise the disruption to other craft and users, including ensuring navigation access to and from the Viaduct Harbour is maintained at all times;
 - The measures to be adopted to maintain the construction zone and adjacent parts of the CMA in a tidy condition in terms of storage and unloading of materials, refuse storage and disposal and other activities;
 - The provision of any site office, parking for workers' vehicles and workers' conveniences (e.g. portaloos);
 - The location of construction machinery access and storage during the period of site works, including any temporary mooring of the barge(s);
 - The procedures for controlling sediment run off into the CMA, and the removal of any debris and construction materials from the CMA; and
 - The provision of any artificial lighting associated with construction works and the effects of any such lighting.

Commented [A46]: Recommended by C Moss.

Commented [A47]: Recommended by B Coomer-Smit and A Crafer.

Consultation and Communications

36. This part of the CEMP is to outline the consultation required to be undertaken in preparing the CEMP and ongoing communications planned with the following parties in relation to the extent to which their operations may be affected:
- Auckland Transport (including Developments and Consenting Specialists and the Harbourmaster's Office);
 - Regional Facilities Auckland (Viaduct Events Centre and New Zealand Maritime Museum);
 - Ports of Auckland Limited;
 - Fishing industry including Sanford Limited and Auckland Fishing Port Limited;
 - Sealink Travel Group New Zealand Limited;
 - Stolthaven;
 - NZ Bus Limited;
 - New Zealand Maritime Museum;
 - Spirit of Adventure Trust;
 - The Tug William C Daldy Preservation Society Inc. ~~;~~ and
 - Auckland Seaplanes ~~;~~
 - Viaduct Harbour Holdings Limited;

Commented [A48]: "required to be" added for clarity.

Commented [A49]: I recommend adding a number of additional parties to be consulted with, as set out below.

Commented [A50]: Deleted, as already referred to above.

- l) Viaduct Harbour berth holders and operators;
- m) New Zealand Transport Agency;
- n) Wynyard Quarter Transport Management Association;
- o) Westhaven Marine Users Association;
- p) Hirepool Wynyard Quarter;
- q) Lance Wiggs;
- r) Firth Concrete;
- s) Residential Body Corporates including but not limited to Princes Wharf Apartments, The Parc, The Point, Lighter Quay;
- t) Fu Wah New Zealand Limited;
- u) Bike Auckland;
- v) Precinct Properties New Zealand Limited;
- w) Empire Capital Limited;
- x) Kiwi Property Group Limited;
- y) KPMG Property New Zealand;
- z) Kensington Swan;
- aa) Auckland Theatre Company Theatre;
- bb) ASB Bank Limited;
- cc) Willis Bond and Company Limited;
- dd) Team New Zealand America's Cup Event Limited;
- ee) Royal New Zealand Yacht Squadron;
- ff) Challenger of Record America's Cup 36.

Implementation

37. All personnel working on the site shall be made aware of the requirements contained in the CEMP. A copy of the approved CEMP shall be held on each of the project sites at all times while any activity associated with construction is occurring. The approved CEMP shall be implemented and maintained throughout the entire period of the works.
38. No construction activity in the CMA (or the affected part of the CMA if staged) shall start until the CEMP is certified by the Team Leader Compliance Monitoring – Central Monitoring and all measures identified in that plan as needing to be put in place prior to the start of works are in place.
39. The Consent Holder shall notify the Team Leader Compliance Monitoring – Central Monitoring in writing of the proposed date of Commencement of Construction at least twenty (20) working days prior to the proposed start date.
40. Within fifteen (15) working days prior to Commencement of Construction, the Consent Holder shall arrange and conduct a pre-start meeting that:

Commented [A51]: Recommended by B Coomer-Smit and A Crafer.

Commented [A52]: Recommended by F Harte.

- a) Is located on the subject site;
 - b) Is scheduled not less than five (5) working days before the anticipated Commencement of Construction;
 - c) Includes Council Compliance Monitoring representatives, and representatives of Auckland Transport and the Harbourmaster's Office;
 - d) Includes representation from the contractors who will undertake the works; and
 - e) Includes an invitation to Mana Whenua.
41. The prestart meeting shall discuss the works methodology generally (including contaminants, erosion and sediment control measures, and earthworks methodology) and shall ensure all relevant parties are aware of and are familiar with the conditions of the resource consents.
42. The following information shall be made available at the pre-start meeting:
- a) Timeframes for key stages of the works authorised under this consent,
 - b) Resource consent conditions, and
 - c) Any Site-Specific Erosion and Sediment Control Plans that are available.
43. In the case that any of the invited parties, other than the representative of the Consent Holder, do not attend this meeting, the Consent Holder will have been deemed to have complied with this condition, provided reasonable notice of ten working days is given to the parties listed above.
44. The Consent Holder shall notify the Team Leader Compliance Monitoring – Central Monitoring in writing of the date of completion within ten (10) working days of the completion of the last activity relating to works in any CEMP.

Advice Note: *To arrange the pre-start meeting please contact the Team Leader Compliance Monitoring - Central Monitoring to arrange this meeting on monitoring@aucklandcouncil.govt.nz, or 09 301 01 01. The conditions of consent should be discussed at this meeting. All additional information required by the Council should be provided 2 days prior to the meeting.*

Community Liaison Group

- 44A. Within one month of the commencement of this consent under section 116 of the RMA, the consent holder will, in consultation with the Team Leader Compliance Monitoring - Central, establish a Community Liaison Group (CLG).
- 44B. The members of the CLG will include representative(s) of the consent holder, representative(s) of the Auckland Council, and shall be open to representatives of all the parties listed in Condition 36.
- 44C. The purpose of the CLG will be to:
- (a) provide a means for receiving regular updates on progress with the Project, Operations and Events;
 - (b) monitor the effects of constructing the Project and of Operations and Events on the community, by providing a regular forum through which information about the Project, Operations and Events can be provided to the community;

Commented [A53]: Recommended by F Harte and B Coomer-Smit / A Crafer.

Commented [A54]: Amendments to clarify that the prestart meeting is concerned with the methodology generally, and not only sediment control.

Commented [A55]: I suggest that "reasonable notice" be defined for the purposes of this condition – 10 working days.

Commented [A56]: I recommend establishing a Community Liaison Group for the reasons outlined in my report.

(c) enable opportunities for concerns and issues to be reported to and responded to by the consent holder; and

(d) provide feedback on the development of the CEMP, the SDGTPs, and the EMP.

44D. The consent holder will:

(a) consult with the CLG on the development of the CEMP, the SDGTPs, and the EMP;

(b) provide reasonable administrative support for the CLG including:

i. organising meetings at a local venue;

ii. inviting all members of the CLG;

iii. distributing an agenda to each CLG member no less than 10 days prior to meetings;

iv. the taking and dissemination of meeting minutes;

(c) appoint one or more persons to provide administrative assistance to the CLG and ensure the CLG operates effectively;

(d) ensure that the CLG meets at least every two (2) months during construction of the Project and during Events, and at least annually at other times, or as otherwise agreed by the CLG;

(e) provide an update at least every two (2) months (or as otherwise agreed by the CLG):

i. during construction of the Project on compliance with consent conditions and the CEMP;

ii. during Events on compliance with the consent conditions and the EMP;

(f) the CLG shall continue for the duration of the construction of the Project and the Operations and Events, and until the requirements of Conditions of 6 to 7C have been complied with.

Accidental Discovery of Protected Objects~~Historic Heritage~~

~~45. In the event that works associated with the construction of infrastructure for the America's Cup Wynyard Hobson project reveal protected New Zealand objects as defined in the Protected Objects Act 1975 the Consent Holder shall implement the protected objects protocol in **Document 8** to the application.~~

~~**Advice Note:** This condition applies separately and in addition to the requirements of the Heritage New Zealand Pouhere Taonga Act 2014.~~

~~The consent holder shall comply with the following requirements:~~

~~(a) A project archaeologist is to be nominated to monitor earthworks across the application area.~~

Commented [A57]: Substitute version of condition 45 recommended by M Eaves.

(b) The consent holder shall provide copies of the Detailed Site Investigation (DSI) and any updated geotechnical report/s to the project archaeologist. Upon reviewing this information and in consultation with the Team Leader Cultural Heritage Implementation, the archaeologist will determine whether any further monitoring is required.

(c) If further monitoring is required then the following actions shall apply:

- i. The project archaeologist shall be appointed to oversee all earthworks including land clearance and building establishment earthworks where relevant;
- ii. Recording shall be undertaken in line with accepted archaeological practice and shall include (but not be restricted to) scaled digital photography and sketch plans;
- iii. If the historic heritage material encountered sits outside Heritage New Zealand Pouhere Taonga Act or Protected Objects Act legislation, the material shall be offered to the National Maritime Museum (in the first instance) by the project archaeologist;
- iv. If any historic heritage item, encountered through the execution of this consent and outside other legislation, is deemed of sufficient material stability and public interest to be retained, then the consent holder shall give consideration to the retention of this historic heritage in a location agreed by the consent holder and Team Leader Compliance Monitoring – Central within the application area. If an agreed location cannot be identified within the application area, provision shall be made for the historic heritage item to be safely stored until such time as an agreed location becomes available.

(d) At the completion of all earthworks monitoring, a report shall be prepared to provide a complete record of the historic heritage content of the site. This report must be provided within twelve (12) months of the completion of the earthworks to the Team Leader Compliance Monitoring - Central (for the Manager: Heritage Unit, heritageconsents@aucklandcouncil.govt.nz).

(e) The project archaeologist shall update the CHI records on the Auckland Council Cultural Heritage Inventory database within two months of the completion of all earthworks.

Advice Notes:

Heritage New Zealand Pouhere Taonga Act 2014

The Heritage New Zealand Pouhere Taonga Act 2014 (hereafter referred to as the Act) provides for the identification, protection, preservation and conservation of the historic and cultural heritage of New Zealand. All archaeological sites are protected by the provisions of the Act (section 42). It is unlawful to modify, damage or destroy an archaeological site without prior authority from Heritage New Zealand Pouhere Taonga.

Commented [A58]: Advice note recommended by M Eaves.

An Authority is required whether or not the land on which an archaeological site may be present is designated, a resource or building consent has been granted, or the activity is permitted under the Auckland Unitary Plan Operative in part (November 2016).

According to the Act (section 6) archaeological site means, subject to section 42(3) –

- a) any place in New Zealand, including any building or structure (or part of a building or structure), that –
 - i. was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where the wreck occurred before 1900; and
 - ii. provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand; and
- b) includes a site for which a declaration is made under section 43(1)

It is the responsibility of the consent holder to consult with Heritage New Zealand Pouhere Taonga about the requirements of the Act and to obtain the necessary Authorities under the Act should these become necessary, as a result of any activity associated with the consented proposals.

For information please contact the Heritage New Zealand Pouhere Taonga Northern Regional Archaeologist – 09 307 0413 / archaeologistMN@historic.org.nz.

Protected Objects Act 1975

Māori artefacts such as carvings, stone adzes, and greenstone objects are considered to be tāonga (treasures). These are taonga tūturu within the meaning of the Protected Objects Act 1975 (hereafter referred to as the Act).

According to the Act (section 2) taonga tūturu means an object that –

- a) relates to Māori culture, history, or society; and
- b) was, or appears to have been –
 - i. manufactured or modified in New Zealand by Māori; or
 - ii. brought into New Zealand by Māori; or
 - iii. used by Māori; and
- c) is more than 50 years old.

The Act is administered by the Ministry of Culture and Heritage. Tāonga may be discovered in isolated contexts, but are generally found within archaeological sites. The provisions of the Heritage New Zealand Pouhere Taonga Act 2014 in relation to the modification of an archaeological site should to be considered by the consent holder if

taonga are found within an archaeological site, as defined by the Heritage New Zealand Pouhere Taonga Act 2014.

It is the responsibility of the consent holder to notify either the chief executive of the Ministry of Culture and Heritage or the nearest public museum (for Auckland this is the Auckland War Memorial Museum), which shall notify the chief executive, of the finding of the taonga tūturu, within 28 days of finding the taonga tūturu; alternatively provided that in the case of any taonga tūturu found during the course of any archaeological investigation authorised by Heritage New Zealand Pouhere Taonga under section 48 of the Heritage New Zealand Pouhere Taonga Act 2014, the notification shall be made within 28 days of the completion of the field work undertaken in connection with the investigation.

Under section 11 of the Act, newly found taonga tūturu are in the first instance Crown owned until a determination on ownership is made by the Māori Land Court.

For information please contact the Ministry of Culture and Heritage – 04 499 4229 / protected-objects@mch.govt.nz.

Navigation and Safety Coastal Notifications and Documentation

46. Prior to Commencement of Construction, the ~~C~~consent ~~H~~holder shall consult the Auckland Harbourmaster to identify the appropriate location, number and types of navigational aids and lighting required for the Infrastructure (including for the temporary and/or permanent structures in the CMA). The navigational aids and lighting as approved by the Harbourmaster, will be provided and maintained by the Consent Holder at its cost, and in accordance with Maritime New Zealand guidelines, and the Port and Harbour Marine Safety Code.

46A. The consent holder shall establish a Navigation Safety Management Plan for on-water construction activities (NSMP). The NSMP shall include information/procedures on how navigation access shall be maintained for vessels using berthing facilities within the construction area, including the maintenance of navigation access to and from the Viaduct Harbour. The NSMP shall also include requirements such as: the showing of day mark; placement of buoys and temporary beacon lights; the shielding or use of other means to prevent glare and reflection or confusion with navigation lights from construction related lights and area flood lighting; as well as operational communications. The NSMP shall be prepared in consultation with the Harbourmaster, and a draft NSMP shall be submitted to the Team Leader Compliance Monitoring - Central for approval at least twenty (20) working days prior to the Commencement of Construction.

47. The ~~C~~consent ~~H~~holder shall notify the Auckland Harbourmaster, ~~and~~ Ports of Auckland Ltd Harbour Control, ~~and the Land Information NZ (LINZ) Hydrographic Office~~ of the location of the marine works and the proposed date of Commencement of Construction in the CMA at least twenty (20) working days prior to the proposed start date.

Commented [A59]: Recommended by C Moss.

Commented [A60]: Recommended by C Moss.

Commented [A61]: Recommended by C Moss.

Commented [A62]: LINZ can be omitted at this stage.

48. The ~~C~~consent ~~H~~holder shall request, as part of the notification in Condition 47, that the Harbourmaster issue a Temporary Notice to Mariners, advising the location of the marine works, to yachting and boating clubs and the Auckland Coastguard at least 5 working days prior to the commencement of the marine works.
49. The ~~C~~consent ~~H~~holder shall notify the Auckland Harbourmaster, Ports of Auckland Ltd Harbour Control, and the Land Information NZ (LINZ) Hydrographic Office in writing of the date of completion of ~~the marine works in the CMA~~ within ~~ten (10)~~ working days of the completion of the last activity involving wharves and pontoons.
50. The ~~C~~consent ~~H~~holder shall provide to the LINZ Hydrographic Office a hydrographic survey of the dredged areas within three months of dredging.

~~**Advice Note:** The consent holder will be required to submit a Maritime Safety Management Plan to the Harbour Master under the Maritime Transport Act.~~

Commented [A63]: Superseded by requirement of NSMP recommended by C Moss.

Dredging and Placement of Mudcrete in the CMA

Management Plan for Dredging and Placement of Mudcrete in the CMA

51. ~~At least twenty (20) working days prior to the Commencement of Construction, t~~The ~~C~~consent ~~H~~holder shall submit a **Management Plan for Dredging and Placement of Mudcrete in the CMA (MPDPM)** to the Team Leader ~~Compliance Monitoring – Coastal~~**Compliance Monitoring** ~~Central for certification.~~
52. The purpose of the MPDPM is to ensure that dredging and placement of mudcrete in the CMA necessary to enable efficient operation of these consents is undertaken in a manner which identifies role and responsibilities for and integrates good environmental practice into those activities.
53. The Team Leader ~~Compliance Monitoring – Coastal~~**Compliance Monitoring** shall certify that the MPDPM includes the following matters:
 - a) Details of the equipment and methods to be used for dredging and mixing and placement of mudcrete in the CMA;
 - b) Details of the locations, quantities and timing of dredging and placement of mudcrete in the CMA;
 - c) ~~Details of the frequency with which information concerning the physical (textural and geological) characteristics of the dredged materials is to be provided to the Council throughout the physical works period of the physical (textural and geological) and chemical (bulk chemistry and leaching potential) characteristics of the dredged materials if these are different from those contained in the documentation provided in support of the application for this consent;~~
 - d) Monitoring and reporting (refer to Conditions 55 to 64);
 - e) Roles and responsibilities of the personnel involved; and
 - f) Method/s of disposal and location of disposal site/s for dredged material.
54. Any proposed change of dredging or mudcreting equipment and/or method from that previously advised to Council must be certified by the Team Leader ~~Compliance Monitoring – Central Coastal~~**Compliance Monitoring** for its use before commencement of the relevant portion of the works. Before such certification is given, the Consent Holder shall provide information to the Team

Commented [A64]: Recommended by S Morgan.

Leader Compliance Monitoring – Central Coastal, showing that the proposed change of technique will not result in a significant increase in adverse environment effects above those associated with the technique previously certified.

Water Quality Monitoring for Dredging of North Wharf and Placement of Mudcrete in the CMA - Sampling

55. The Consent Holder shall undertake one-off comprehensive water quality monitoring during the initial phase of the dredging of the North Wharf area and placement of mudcrete in the CMA. The purpose of this monitoring during the initial phase is to confirm the mixing zone and proposed trigger level specified in Condition 62. Water quality samples shall be collected:
 - a) For a neap tide;
 - b) At an updrift control site located approximately within the Waitemata Harbour main channel (for ebb tide) and at least 500 m beyond the operations (for flood tide);
 - c) At dilution gradient sites 10m, 20m and 50m down-drift of the operations aligned approximately along the centreline of the Waitemata Harbour main channel; and
 - d) At a compliance site 200m down-drift of the operations aligned approximately along the centreline of the Waitemata Harbour main channel.
56. Following the initial phase of dredging and placement of mudcrete in the CMA, the Consent Holder shall undertake water quality monitoring once per week whilst dredging and any placement of material in the CMA is underway. Water quality samples shall be collected:
 - a) On an ebb tide;
 - b) At an up-drift control site located at least 500m beyond the operations;
 - c) At a dilution gradient site 50m down-drift of the operations aligned approximately along the centreline of the Waitemata Harbour main channel; and
 - d) At a compliance site 200m down-drift of the operations aligned approximately along the centreline of the Waitemata Harbour main channel.
57. During each sampling run carried out in accordance with Conditions 55 and 56, records shall be kept of:
 - a) Sampling date and time;
 - b) Weather conditions;
 - c) Sea state;
 - d) Sampling location;
 - e) Water depth;
 - f) Time that dredging and placement of dredged material in the CMA commenced; and
 - g) Time of low and high tide on day of sampling.
58. Water samples collected in accordance with Conditions 55 to 57 shall be individual samples from the surface (approximately 0.5 m below surface) and at depth (approximately 0.5m above the seabed) at each site.
59. Water samples shall be collected on a day that dredging is occurring.

60. Dilution gradient and compliance site samples shall be representative of the plume generated by the operations (i.e. not collected before the plume has had a chance to develop upon the start of the operations and not after the plume has had a chance to dissipate upon completion of the operations), and shall be collected as close as practicable to mid-tide to capture the maximum extent of any plume.
61. Samples for water quality monitoring of dredging shall be analysed for total suspended solid levels (TSS). Samples for water quality monitoring of mudcrete placement in the CMA shall be analysed for total suspended solid levels (TSS) and pH.
62. Unless amended in accordance with Condition 65, the proposed trigger level for total suspended solids shall be 25g/m³ above TSS at the control site; and for mudcreting, a pH of 8.5.
63. Following two months of weekly sampling, and subject to written approval of the Team Leader Compliance Monitoring - Central Coastal, the monitoring programme may be amended, for example compositing of surface and depth samples, and reduction of the frequency (e.g. to fortnightly / monthly).
64. Within three months of completion of all the dredging works, the Consent Holder shall provide the Team Leader Compliance Monitoring - Central Coastal with the best available estimates of the in-situ volumes of:
 - a) Material dredged; and
 - b) Material placed as mudcrete in the CMA.

Water Quality Monitoring for Dredging and CMA Mudcrete – Trigger Levels and Contingency Plan

65. The ~~C~~consent ~~H~~holder shall review the proposed TSS trigger level of 25g/m³ and pH trigger level of 8.5 set out in Condition 62 against the results of the one-off comprehensive monitoring undertaken during the initial phase of the dredging operations. The ~~C~~consent ~~H~~holder shall provide a report to the Team Leader Compliance Monitoring - Central Coastal confirming the above trigger level(s) or proposing alternative trigger level(s) with the basis for the alternative(s). The report shall be provided within twenty (20) working days of the receipt by the ~~C~~consent ~~H~~holder of the analytical results for the one off comprehensive water sampling required in Condition 55. The alternative trigger level(s) may be used for regular monitoring subject to approval in writing by the Team Leader Compliance Monitoring - Central Coastal.
66. During regular monitoring, an exceedance shall be:
 - a) For dredging and for mudcrete placement: a TSS level in any sample collected at the compliance site that exceeds the trigger level plus the TSS level measured in the updrift control sample collected during the same sampling run. The TSS level shall be identified from the analytical results of the water quality samples in accordance with Conditions 56 to 61; and
 - b) For mudcrete placement: a pH in any sample collected at the compliance sites that exceeds the pH trigger level. The pH shall be identified from the analytical results of the water quality samples in accordance with Conditions 56 to 61.

67. In the event of an exceedance the ~~C~~consent ~~H~~holder shall prepare a Contingency Plan which sets out the actions to be undertaken. These shall include further monitoring measures, in the first instance, or a site specific effects assessment, and practical modifications to the relevant activities where further monitoring identifies repeated exceedances. Such modifications may include suspending or altering the dredging approach, reducing production rates, focusing dredging activities around slack tide, and using silt fences or other containment approaches. The Contingency Plan shall be provided to the Team Leader Compliance Monitoring - Central Coast no later than five (5) working days after the exceedance occurs.

Aerial Photography Monitoring for Dredging

68. The ~~C~~consent ~~H~~holder shall take aerial photographs of the extent of any plume during the dredging. Where water quality for dredging is also being undertaken, the photograph shall be completed at the same time as the sampling runs. Aerial photography sites shall be selected to correspond only to those areas where dredging or placement of dredged material in the CMA is occurring, to confirm sediment plume distribution and aid sampling.

Reporting for Dredging and Placement of Mudcrete in the CMA

69. The Consent Holder shall provide monitoring reports to the Team Leader Compliance Monitoring - Central Coast and the Mana Whenua ~~g~~Groups that participate in the preparation of the MWEF as follows:

- a) At completion of the one-off comprehensive water quality monitoring; and
- b) Every ~~six months~~week for the duration of dredging and placement of mudcrete in the CMA for routine water quality monitoring.

The consent holder may seek the written approval of the Team Leader Compliance Monitoring – Central to modify the regularity of monitoring reports if no exceedances occur.

Commented [A65]: Amendment for clarity, as there is no defined "Mana Whenua Group".

Commented [A66]: This change and new sentence at end of condition recommended by K Sivaguru.

Site-Specific Erosion and Sediment Control Plans

General

70. ~~During construction, the Consent Holder shall take all practicable measures to minimise erosion and prevent the discharge of sediment beyond the boundaries of the site of earthworks on land. This includes deposition of mud or other debris on any road or footpath beyond the boundary of the site resulting from earthworks activity on the subject site. In the event that such deposition does occur, it shall immediately be removed.~~

At least ten (10) working days pPrior to the Commencement of Construction for each stage of the Project, a n Site-Specific Erosion and Sediment Control Plan (SSESCP) shall be prepared by a suitably qualified person in general accordance with Auckland Council Guideline GD05, Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region. The SSESCP shall be submitted to the Team Leader Compliance Monitoring - Central for certification in terms of the matters in Condition 72. No earthworks activity on the subject site shall commence until written certification for the relevant SSESCP is received from the Team Leader Compliance Monitoring – Central.

Commented [A67]: All changes to following conditions recommended by F Harte. A number of conditions have been relocated with edits or merged. These changes are generally explained in the comment boxes. Note that where conditions have been relocated or merged, I have not shown the applicant's struck out condition in its original location (to minimise the amount of text / complexity).

Commented [A68]: Applicant's condition 75 relocated here with amendments. Also includes elements of the applicant's condition 80, which has been deleted.

71. ~~Erosion and sediment control measures shall be implemented throughout land-based Construction Works. They shall be constructed and maintained so as to operate and perform in accordance with Auckland Council GD2016/005: Erosion Sediment Control Guide for Land Disturbing Activities in the Auckland Region and any amendments to this document, except where a higher standard is detailed in the conditions below in which case the higher standard shall apply.~~

The purpose of the SSESCP is to set out the measures to be implemented during construction to minimise erosion and the discharge of sediment beyond the boundaries of the site.

~~**Advice note:** Standard E26.7.5.1 of the Auckland Unitary Plan (Operative in Part) outlines the Accidental Discovery Rule in relation to Land Disturbance for infrastructure. Except as authorised by this consent and provided for in Condition 45, this standard must be complied with at all times, and should these requirements be unable to be complied with, a further resource consent may be required.~~

72. The SSESCP shall include, but is not limited to, the following information as appropriate to the scale, location and type of earthworks:

- a) Drawings showing location and quantities of earthworks and any mudcrete placement on land, contour information, catchment boundaries and erosion and sediment controls (location, dimensions, capacity);
- b) Supporting calculations for erosion and sediment controls;
~~e) Catchment boundaries and contour information;~~
- c) Reference to details of measures for contaminated land;
- d) Details of construction methods to be employed, including timing and duration;
- e) Dewatering and pumping methodology (if applicable);
- f) Details of the proposed water treatment measures, devices and appropriate trade waste permits (if applicable);
- g) Specific location of stockpile areas (if applicable);
- ~~h) Detail of adjacent cesspits to be protected or capped (if applicable);~~
- ~~i) Final details and specifications of the coffer dam or temporary seawall;~~
- ~~h)j) The geotechnical-related earthworks matters addressed in condition 135B(b);~~
- ~~i)k) A programme for managing exposed area, including progressive stabilisation considerations;~~
- ~~j)l) Roles and responsibilities under the SSESCP and identification of those holding roles including the suitably qualified person; and~~
- ~~k)m) Monitoring, maintenance and record-keeping requirements.~~

73. Prior to any earthworks commencing, a certificate signed by an appropriately qualified and experienced person shall be submitted to the Team Leader Compliance Monitoring - Central, to certify that the erosion and sediment controls have been constructed in

Commented [A69]: Applicant's condition 76 relocated here with amendment.

Commented [A70]: Not required. New heritage conditions deal with this.

Commented [A71]: Applicant's condition 77 relocated here with amendments.

Commented [A72]: Consequential change in response to new condition 135B recommended by A Khan.

Commented [A73]: Applicant's condition 78 relocated here with amendment.

accordance with the approved ~~erosion and sediment control plans~~ SSDESCP and Auckland Council Guideline GD05.

74. Certified controls shall include but not be limited to the dewatering and treatment devices, stabilised construction entrances, cesspit protection and clean and dirty water diversions. The certification for these and any subsequent measures shall be supplied immediately upon completion of construction of those measures. Information supplied if applicable, shall include:

- a) Contributing catchment area;
- a)b) Treatment capabilities and capacities;
- b)c) Shape and capacity of structure (dimensions of structure);
- c)d) Position of inlets/outlets;
- d)e) Stabilisation of the structure; and
- e)f) A statement regarding the appropriateness of the device with respect to Auckland Council Guideline GD2016/005.

Commented [A74]: Applicant's condition 79 relocated here with amendments.

Erosion and Sediment Control Plan

75. The operational effectiveness and efficiency of all erosion and sediment control measures required by the SSDESCP shall be maintained throughout the duration of earthworks activity, or until the site is permanently stabilised against erosion.

Commented [A75]: Applicant's condition 81 relocated here with amendment.

76. Erosion and sediment control measures shall be constructed and maintained in general accordance with Auckland Council Guideline GD2016/005; Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region and any amendments to this document, except where a higher standard is detailed conditions of this consent or in the ~~documents referred to the~~ SSDESCP, in which case the higher standard shall apply.

Commented [A76]: Applicant's condition 82 relocated here with amendments.

77. Earthworks shall be managed to avoid ~~There shall be no~~ deposition of earth, mud, dirt or other debris on any road or footpath beyond the subject site resulting from earthworks activity on the subject site. In the event that such deposition does occur, it shall be immediately removed. In no instance shall roads or footpaths be washed down with water without appropriate control measures in place to prevent contamination of the stormwater drainage system, watercourses or receiving waters.

Commented [A77]: Applicant's condition 83 relocated here with amendments.

Advice Note: *In order to prevent sediment laden water entering waterways from the road, the following methods may be adopted to prevent or address discharges should they occur:*

- *Provision of a stabilised entry and exit(s) point for vehicles;*
- *Provision of wheel wash facilities;*
- *Ceasing of vehicle movement until materials are removed;*
- *Cleaning of road surfaces using street-sweepers;*
- *Silt and sediment traps; and*

- Catchpit protection.

In no circumstances should the washing of deposited materials into drains be advised or otherwise condoned.

It is recommended that the consent holder discuss any potential measures with the Council's monitoring officer who may be able to provide further guidance on the most appropriate approach to take. Please contact the Team Leader Compliance Monitoring – Central Monitoring for more details. Alternatively, please refer to Auckland Council Guideline GD2016/005, Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region.

78. The sediment and erosion controls at the site of the works shall be constructed and maintained in accordance with the approved SSES CP and shall be inspected on a regular basis and within 24 hours of each rainstorm event that is likely to impair the function or performance of the erosion and sediment controls. A record shall be kept of the date, time and any maintenance undertaken in association with this condition, and shall be forwarded to the Team Leader Compliance Monitoring – Central Monitoring on request.

Commented [A78]: Applicant's condition 72 relocated here with amendments.

79. The site shall be progressively stabilised against erosion at all stages of the earthwork activity and shall be sequenced to minimise the discharge of sediment to surface water. The site shall be stabilised against erosion as soon as practicable, and in a progressive manner, as earthworks are finished over the sites. Areas of earthworks not actively worked for a period of two weeks shall be stabilised until such time as further earthworks occur in a specific area.

Commented [A79]: This is the applicant's condition 73 (and accompanying advice note) relocated here and substituted with new wording.

Advice Note: *Earthworks shall be progressively stabilised against erosion during all stages of the earthwork activity. Interim stabilisation measures may include:*

- *The use of waterproof covers, geotextiles, or mulching;*
- *Top-soiling and grassing of otherwise bare areas of earth; and*
- *Aggregate or vegetative cover that has obtained a density of more than 80% of a normal pasture sward.*

Commented [A80]: The applicant's advice note for its condition 73 has been split into two parts. The second part is now an advice note to Council's proposed condition 80 below.

It is recommended that the consent holder discuss any potential measures with the Council's monitoring officer who may be able to provide further guidance on the most appropriate approach to take. Please contact the ~~Team Leader – Central Monitoring~~ Team Leader Compliance Monitoring - Central for more details. Alternatively, please refer to Auckland Council Guideline GD2016/005, Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region.

80. Upon completion or abandonment of earthworks on the subject site all areas of bare earth shall be permanently stabilised against erosion to the satisfaction of the Team Leader Compliance Monitoring - Central.

Commented [A81]: A new condition, paired with the second half of what was the advice note for the applicant's condition 73.

Advice Note: *Should the earthworks be completed or abandoned, bare areas of earth shall be permanently stabilised against erosion. Measures may include:*

- *The use of mulching;*
- *Top-soiling, grassing and mulching of otherwise bare areas of earth;*

- Aggregate or vegetative cover that has obtained a density of more than 80% of a normal pasture sward; and

The on-going monitoring of these measures is the responsibility of the consent holder. It is recommended that the consent holder discuss any potential measures with the Council's monitoring officer who will guide you on the most appropriate approach to take. Please contact the Team Leader Compliance Monitoring – Central ~~Monitoring~~ for more details. Alternatively, please refer to Auckland Council Guideline GD2016/005, Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region.

~~84. The Consent Holder shall carry out monitoring in accordance with the ESCP and shall keep records detailing:~~

- ~~a) The monitoring undertaken;~~
- ~~b) The erosion and sediment controls that required maintenance;~~
- ~~c) The time when the maintenance was completed; and~~
- ~~d) Areas of non-compliance with the erosion and sediment control monitoring plan (if any) and the reasons for the non-compliance.~~

~~This information shall be made available to the Team Leader – Central Monitoring upon request.~~

81. Notification shall be given to the Team Leader Compliance Monitoring – Central ~~Monitoring~~ within 20 working days of completion of earthworks.

82. Not used

83. Not used

84. Not used

Commented [A82]: Applicant's condition 84 deleted entirely. Not needed – Council's condition 78 deals with this adequately.

Commented [A83]: Applicant's condition 74 relocated here with amendment.

Contaminated Land Management

Detailed Site Investigation and Remediation Action Plan

85. Prior to any excavation or soil disturbance in areas of known or potentially contaminated land, the Consent Holder shall engage a Suitably Qualified Environmental Practitioner (SQEP) to undertake additional soil and groundwater testing for the assessment of contamination within the areas proposed for soil disturbance. The investigation is to be undertaken in general accordance with Ministry for Environment (MfE) *Contaminated Land Management Guidelines No. 5: Site Investigation and Analysis of Soils* (Revised 2011) and any amendments to this document. A **Detailed Site Investigation (DSI)** Report is to be prepared and submitted to the Team Leader Compliance Monitoring – Central ~~Monitoring~~ for certification.

86. ~~At least five (5) days p~~Prior to excavation or disturbance in areas of known or potentially contaminated land, the ~~C~~consent ~~H~~holder shall update the Draft **Remediation Action Plan (RAP)** included in the consent application. The updated RAP shall be prepared and

Commented [A84]: Recommended by R Van de Munckhof in his NES report.

submitted to the Team Leader Compliance Monitoring – Central Monitoring for certification in terms of the matters in Condition 88.

87. The purpose of the RAP shall be to detail the measures to manage human exposure, and environmental risk associated with works in contaminated material in the Project area, during construction.

Commented [A85]: Recommended by M Jukic.

88. The RAP shall be in general accordance with the Draft Remediation Action Plan included in the consent application, and shall include :

- a) Any soil, groundwater and gas (if required) investigations undertaken to characterise potential hazards associated with works in those areas and to inform development of the RAP;
- b) The measures to be undertaken in the handling, storage and disposal of all contaminated material excavated during Construction Works;
- c) The soil verification testing that will be undertaken to determine the nature of any contamination in excavated material and the potential reuse or disposal options for that material;
- d) Measures to be undertaken in the event of unexpected contamination being identified during construction activities, including measures to:
 - (i) Assist with identification of unknown contaminated material; and
 - (ii) Stop work or isolate the area once any such material is identified.
- e) The measures to be undertaken to manage contaminated land to:
 - (i) Protect the health and safety of workers and the public;
 - (ii) Control stormwater run-on and run-off; and
 - (iii) Remove or manage any contaminated soil.

f) Measures to monitor and mitigate discharges of odour, volatile organic compounds and asbestos (if required) during excavations, including criteria/action levels for triggering specific control and contingency measures;

Commented [A86]: Recommended by P Crimmins and R Van de Munckhof.

g) Measures to manage the placement of dredge material on the site addressing:

Commented [A87]: Recommended by M Jukic.

- i. Description of the methodology of the proposed placement of the dredge material within the site, and its management;
- ii. The management of the associated contaminant discharges and the relevant effects on the receiving environment;
- iii. Description of the contingency plan procedures for the management of unexpected contamination within the placed dredge material.

89. The RAP shall be implemented and maintained throughout the entire construction period.

89A. If the DSI required by Condition 85 identifies the presence of vapours from contaminants in the ground a vapour risk assessment shall be undertaken to:

Commented [A88]: New condition recommended by R Van de Munckhof in his NES report.

- a) Confirm the potential contaminants, pathways and receptors who may be impacted by vapours including construction workers and building occupants;
- b) Undertake a risk assessment to identify if additional mitigation measures are required for the protection of workers or occupants on any enclosed buildings or structures; and
- c) Identify appropriate mitigation measures for incorporation into the RAP or into the design of any proposed buildings or structures.

Placement of Dredge Material on Land

89B. The discharge of contaminants to land and water from the reuse and stockpiling of cement stabilised dredge material shall be carried out in accordance with the updated Remediation Action Plan referenced in Condition 88.

Commented [A89]: New conditions 89B and 89C are proposed by M Jukic.

89C. Any dredge material that has not been cement-stabilised and is placed within the site shall be adequately banded and covered to avoid the generation of contaminant discharges. Any seepages from the unstabilised dredge material shall be considered potentially contaminated, and shall either:

- a) be disposed of by a licenced liquid waste contractor; or
- b) pumped to sewer, providing the relevant permits are obtained; or
- c) discharged to the stormwater system or surface waters provided testing demonstrates compliance with the Australian and New Zealand Environment Conservation Council (ANZECC) Guidelines for Fresh and Marine Water Quality (2000) for protection of 80 percent of marine water species, except for benzene where the criterion for protection of 95 percent of species shall apply.

Site Management

90. All sampling and testing of contamination on the site shall be overseen by a suitably qualified ~~person and experienced practitioner~~. All sampling shall be undertaken in general accordance with MfE *Contaminated Land Management Guidelines No. 5 Site Investigation and Analysis of Soils* (Revised 2011) and any amendments to this document.

Commented [A90]: Recommended by M Jukic.

91. Where contaminants are identified that have not been anticipated by the RAP, works in the area containing the unexpected contamination shall cease until the contingency measures outlined in the certified RAP have been implemented, and the discovery and contingency measures undertaken have been notified to the Team Leader Compliance Monitoring – ~~Central Monitoring~~.

92. ~~To protect the health of workers on the site during excavations, works~~ Excavation or soil disturbance in areas of known or potentially contaminated land shall be managed to minimise the generation of dust, asbestos, odour and volatile organic compounds on the site and be carried out in accordance with the certified RAP.

Commented [A91]: Recommended by P Crimmins. Addition of word "asbestos" recommended by R Van de Munckhof.

Groundwater

Damage Avoidance

93. All excavation, stabilisation and works associated with the diversion or taking of groundwater, shall be designed, constructed and maintained so as to avoid damage to buildings, structures and services on the site and adjacent properties, outside that considered as part of the application process unless otherwise agreed in writing with the asset owner.

Alert Levels

94. The activity shall not cause any groundwater changes greater than the Alert Level thresholds specified in Schedule A. Alert Levels are triggered when the following thresholds are exceeded:

SCHEDULE A: GROUNDWATER ALERT LEVELS		
Movement	Alert Level 1	Alert Level 2
The distance below the pre-dewatering Seasonal Low Groundwater Level, or the distance above the pre-dewatering Seasonal High Groundwater Level at AC36_PZ01	0.2 m	0.5 m
The distance below the pre-dewatering Seasonal Low Groundwater Level, or the distance above the pre-dewatering Seasonal High Groundwater Level at AC36_PZ02 and AC36_PZ03	0.5 m	1.0 m

Commented [A92]: The second row of the table below (shaded light blue) was amended by the applicant in an email dated 8 May 2018 to remove a reference to 'AC36_PZ04' (which related to the FFIRF).

These levels may be amended as part of the Groundwater Monitoring and Contingency Plan (GWMCP) certification process under Condition 96, and, after the receipt of pre-dewatering monitoring data and recommendations from a suitably qualified person, but only to the extent that avoidance of damage to building, structures and services can still be achieved.

Advice Note: *There are conditions below that must be complied with when the Alert Levels are exceeded. These include actions that must be taken immediately including seeking the advice of a suitably qualified person.*

Alert Level actions

95. In the event of any Alert Level being exceeded the consent holder shall:
- Notify the Team Leader – Central Monitoring within 24 hours;
 - Re-measure all Monitoring Stations within 50 m of the affected monitoring location(s) to confirm the extent of apparent movement;
 - Ensure the data is reviewed, and advice provided, by a suitably qualified person on the need for mitigation measures or other actions necessary to avoid further deformation. Where mitigation measures or other actions are recommended those measures shall be implemented;

- d) Submit a written report, prepared by the suitably qualified person responsible for overseeing the monitoring, to the Team Leader Compliance Monitoring – Central Monitoring within 5 working days of Alert Level exceedance. The report shall provide an analysis of all monitoring data relating to the exceedance, actions taken to date to address the issue and recommendations for future remedial actions necessary; and
- e) Measure and record all Monitoring Stations within 50 m of the location of any Alert Level exceedance every two days until such time the written report referred to above has been submitted to the Team Leader Compliance Monitoring - Central Monitoring.

Groundwater Monitoring and Contingency Plan

- 96. At least 20 working days prior to the Commencement of Dewatering/Stabilisation, a **Groundwater Monitoring and Contingency Plan (GWMCP)** prepared by a suitably qualified person shall be submitted to the Team Leader Compliance Monitoring – Central Monitoring to certify that the GWMCP includes the matters listed below.

The purpose of the GWMCP is to set out the practices and procedures to be adopted to monitor any changes in groundwater levels as a result of works, and provide for contingency actions if Alert Levels are exceeded, and shall include, at a minimum, the following information:

- a) A monitoring location plan showing the location and type of all groundwater monitoring bores based on ~~the plan~~ Figure 5 of the report America’s Cup Groundwater Technical Report for Resource Consent Application, Wynyard Hobson (Beca, April 2018) ~~below~~. In any case where the location of a Monitoring Station differs substantively from that shown on Figure 5 of the report America’s Cup Groundwater Technical Report for Resource Consent Application, Wynyard Hobson (Beca, April 2018) ~~the plan below~~, a written explanation for the difference shall be provided at the same time that the GWMCP is provided;

Commented [A93]: Amendments to condition and deletion of monitoring location plan proposed by R Simonds.



[above plan to be deleted]

- b) Final completed Schedule A (as per Condition 94) and Schedule B for the groundwater monitoring programme (including any proposed changes to the monitoring frequency) as required by conditions below;
- c) All groundwater level monitoring data undertaken to date, and required by conditions below;
 - i. A bar chart (such as a Gantt chart) showing the timing and frequency of monitoring required by this consent, and, a sample report template for the required 2 monthly monitoring;
 - ii. All Alert Levels (including reasons if changes to such are proposed; for example as a result of data obtained from pre-dewatering monitoring); and
 - iii. Details of the contingency actions to be implemented if Alert Levels are exceeded.

97. All construction, dewatering, monitoring and contingency actions shall be carried out in accordance with the approved GWMCP. No bulk excavation (that may affect groundwater levels) or other dewatering activities shall commence until the GWMCP is certified by the Team Leader Compliance Monitoring – ~~Central Monitoring~~.

Commented [A94]: NB: Words "and Schedule B" added by applicant on 8 May 2018 and agreed by R Simonds.

Commented [A95]: NB: Text deleted from this sub-paragraph by applicant on 8 May 2018 (not tracked) and agreed by R Simonds.

Groundwater Monitoring

98. The Consent Holder shall install and maintain groundwater monitoring boreholes at the sites shown in Figure 5 of the report America's Cup Groundwater Technical Report for Resource Consent Application, Wynyard Hobson (Beca, April 2018). The Consent Holder shall install the monitoring bores at least 2 months prior to commencement of any in-situ stabilisation.

99. Groundwater level monitoring is to be undertaken in accordance with Schedule B below:

Schedule B: Groundwater Monitoring Frequency					
Bore Name	NZTM Location		Groundwater level monitoring frequency (to an accuracy of 10mm)		
	Easting	Northing	From bore construction until one month before Commencement of Dewatering / Stabilisation	One month before Commencement of, and until Completion of Dewatering / Stabilisation	From Completion of Dewatering / Stabilisation until 6 months later
AC36-PZ01	1756583	5921416	Monthly	Weekly	Monthly
AC36-PZ02	1756673	5921538	Monthly	Weekly	Monthly
AC36-PZ03	1756742	5921606	Monthly	Weekly	Monthly

Commented [A96]: NB: The applicant amended this table on 8 May 2018 to delete a row relating to AC36-PZ04 – agreed by R Simonds.

The monitoring frequency may be changed as part of the certification process by the Team Leader Compliance Monitoring – Central Monitoring. Any change shall be specified in the GWMCP. In addition, the 6 month monitoring period post Completion of Dewatering/Stabilisation may be extended, by the Team Leader Compliance Monitoring – Central Monitoring, if measured groundwater levels are not consistent with inferred seasonal trends or predicted groundwater movement.

Commented [A97]: Addition of word "stabilisation" here and in advice note recommended by R Simonds.

Advice Note: *If groundwater level measurements show an inconsistent pattern immediately prior to the Commencement of Dewatering/Stabilisation (for example varying more than +/- 200mm during a month), then further readings may be required to ensure that an accurate groundwater level baseline is established before dewatering commences.*

Contingency Actions

100. If the consent holder becomes aware of any damage to buildings, structures or services potentially caused wholly, or in part, by the exercise of this consent, the consent holder shall:

- Notify the Team Leader Compliance Monitoring – Central Monitoring and the asset owner ~~immediately upon within 5 working days of the consent holder~~ becoming aware of the damage;
- Seek access permission from the building, structure or asset owner, together with the request that a suitably qualified person is engaged by the consent holder at ~~their~~ its cost, to prepare a report that: describes the damage; identifies the cause of the damage; identifies methods to remedy and/or mitigate the damage that has been caused; identifies the potential for further damage to occur; and describes actions that will be taken to avoid further damage; and

Commented [A98]: In my opinion, notice of damage of the kind described in this condition should be provided as soon as it comes to the attention of the consent holder.

- c) Provide a copy of the report, prepared under b) above, to the Team Leader Compliance Monitoring – Central Monitoring and the asset owner within ten (10) working days of notification under a) above.

Reporting

101. At two monthly intervals a report containing all monitoring data required by conditions of this consent shall be submitted to the Team Leader Compliance Monitoring – Central Monitoring. The report shall include a construction progress timeline, a summary interpretation of the monitoring data recorded in that period, and, a comparison of that data with previously recorded data and with the Alert Levels for each groundwater bore.

Notice of Completion

102. The Team Leader Compliance Monitoring – Central Monitoring shall be advised in writing within ten (10) working days of when stabilisation and dewatering has been completed.

Construction Traffic

Construction Traffic Management Plan

103. At least 20 working days prior to Commencement of Construction, the consent holder shall update the ~~Draft Preliminary~~ Construction Traffic Management Plan (CTMP) included at Appendix E of the Beca Traffic and Transport Technical Report, dated April 2018, Application Document 21, in the consent application in consultation with Auckland Transport, and the Wynyard Quarter ~~Travel~~Transport Management Association, and the stakeholders identified in Condition 36, including specific co-ordination with the Regional Facilities Auckland (Viaduct Events Centre) and New Zealand Maritime Museum regarding access and traffic management arrangements for Halsey Wharf and Hobson Wharf, as well as coordination with the fishing industry. The CTMP shall be submitted to the ~~Team Leader – Central Monitoring~~ Team Leader Compliance Monitoring – Central and Auckland Transport for certification by the Team Leader Compliance Monitoring – Central in terms of the matters in Condition 105.
104. The purpose of the CTMP is to manage and minimise any potential impacts of construction traffic associated with the consented works. This Plan shall also manage the traffic impacts on the road network due to construction works required to facilitate consented works in the CMA.
105. The CTMP shall be in general accordance with the Draft Preliminary Construction Traffic Management Plan included at Appendix E of the Beca April 2018 Traffic and Transport Technical Report in the consent application, and shall include:
- a) Provision of the new Northern Connector Road to the north of proposed Base C providing access during construction between Brigham Street and Hamer Street, specifically in advance of the closure of Brigham Street; If Brigham Street needs to be temporarily closed before it is permanently stopped a Traffic Management Plan (TMP) shall be prepared subject to approval from Team Leader Compliance Monitoring – Central in consultation with Auckland Transport. This TMP shall identify diversion routes, signage and other measures to advise of the temporary closure and to ensure safety for all modes of transport, and to mitigate any effects of the closure;

Commented [A99]: B Coomer-Smit and A Crafer recommend amendments to the conditions relating to construction traffic and staff travel plans, including monitoring and review of the plans, greater provision for pedestrian and cyclist facilities, monitoring and review of conditions during operational and event phases and added consultee parties. Detailed rationale for these amendments is set out in B Coomer-Smit's and A Crafer's report.

- b) For each Project stage and construction site, clearly address the traffic management measures that will be required to be implemented;
- c) For Wynyard Point bases, include specific traffic management measures to ensure that heavy vehicles egressing the Wynyard Point site onto Hamer Street do not affect the efficiency and safety of other vehicles, pedestrians and people on cycles on Hamer Street;
- d) For Halsey Wharf, include a Traffic Management Plan for the Marine and Fishing Industry, which shall be completed in consultation with the Regional Facilities Auckland (Viaduct Events Centre "VEC") and the marine and fishing industry (including Sanford Limited and Auckland Fishing Port) and shall be based on the VEC Traffic Management Plan, which was prepared as a condition of consent for the VEC;
- a)e) Provision of appropriate ingress and egress routes to/from the different sites for the construction vehicles, including confirmation of appropriate heavy ~~truck-vehicles~~ layover areas and over-dimensional vehicle routes. The operation of the heavy vehicles layover area on Brigham Street shall not impede the travel of passing vehicles and cyclists;
- b)f) Confirmation of typical numbers of ~~truck-heavy vehicle~~ movements throughout the day for each construction site and stage;
- c)g) Coordination with Panuku and ~~Auckland Transport~~ regarding other construction sites and street works in the vicinity of the Wynyard Precinct and the Viaduct Precinct, including works on Quay Street;
- d) Restricting parking for workers on construction sites;
- e)h) ~~Restricting No~~ heavy ~~truck-vehicle~~ movements/deliveries to and from all the construction sites through the Wynyard Precinct to and from Fanshawe Street and the Eastern Viaduct on weekdays (excluding public holidays) between 7am and 9am and between 4pm and 6pm;
- f)i) Consideration to ~~u~~undertaking more significant concrete pours in the early hours of the morning (before 6 am) where practicable. The operation of the concrete pours shall be managed so that no queuing or parking occurs on adjacent roads that may affect access to and from adjacent properties;
- g)j) Maintaining safe and efficient vehicle, pedestrian and cyclist accesses from Brigham Street during construction for remaining activities / properties, which may include temporary access for BST, ~~and~~ SeaLink and Auckland Seaplanes via the southern part of the Sail NZ / ASB car park site;
- h)k) ~~Restricting No~~ trucks-heavy vehicles shall ~~use from using~~ Daldy Street unless specifically required for large infrequent deliveries, which shall occur between midnight and 6 am;
- i)l) Monitoring of landscaping and pavements located on construction ~~haul~~ routes and provide remediation of any damage;
- j)m) Monitoring and remediation of any damage to landscaping and pavements on construction ~~haul~~ routes, including (but not limited to) Madden-Beaumont Street, Halsey Street, Fanshawe Street, Quay Street, Lower Hobson Street and Lower Albert Street;
- k)n) Providing safe access for pedestrians and cycle access people cycling to all construction sites and to the ASB building. Pedestrians and cyclists shall be physically separated from heavy vehicles through the Eastern Viaduct ~~access for construction staff to Bases C-G from Hamer Street;~~

Commented [A100]: This recommended amendment is in response to submissions received.

Commented [A101]: This allows for heavy vehicle movements to occur within the Wynyard Precinct 7am-9am and 4pm-6pm between the Firth Concrete Plant and the Wynyard Point construction sites, if required.

Commented [A102]: Applicant had suggested addition of words "and cycle" in further information response. Remaining edits are Council's suggestions.

l)o) In coordination with Auckland Transport, implement measures to raise awareness of pedestrians walking and ~~cyclists people cycling travelling~~ east-west on North Wharf and Wynyard Crossing shared path and zebra crossing to construction and heavy vehicle drivers travelling on Hamer Street, and Karanga Plaza and Brigham Street (until it is stopped) of the truck movements on Beaumont Street;

Commented [A103]: Applicant had suggested addition of words "and Karanga Plaza" in further information response. Remaining edits are Council's suggestions.

m) Specific co-ordination with the Regional Facilities Auckland (Viaduct Events Centre) and New Zealand Maritime Museum regarding access and traffic management arrangements for Halsey Wharf and Hobson Wharf, as well as coordination with the fishing industry and other stakeholders;

Commented [A104]: These matters have been incorporated into condition 103, which already address consultation.

n)p) Specific measures to provide for the safe movement of pedestrians and people cycling ~~construction vehicles~~ through high pedestrian and cycle demand areas and in the vicinity of sites' access points; and

Commented [A105]: Applicant had suggested addition of words "and cycle" in further information response. Remaining edits are Council's suggestions.

q) Restricting or preventing public access to parts of Halsey Wharf, and Wynyard Wharf and Hobson Wharf where required for public safety:-

o)r) Restricting public pedestrian and cyclist access to Hobson Wharf unless measures are implemented to provide for safe separation between heavy vehicles and pedestrians and people cycling;

s) Educating construction staff of the safety needs of pedestrians and ~~cyclists people~~ cycling;

Commented [A106]: Applicant proposed the addition of this item in further information response. The edits are the Council's suggestions.

t) Manage the potential impacts of heavy vehicle movements to and from other commercial ports associated with the removal of material that has been barged from the AC Wynyard Hobson sites to other commercial ports. The CTMP may include restrictions of related heavy vehicle movement during peak traffic periods.

p)u) The CTMP shall include a **Construction On-street Parking Management Plan** (developed in coordination with Auckland Transport) Specific measures to manage on-street parking adjacent to the construction sites to ensure that: ~~no on-street parking is used by construction staff, and that any changes to on-street parking is focused on the provision of short term visitor parking and goods only parking.~~ The geographical area of the Parking Management Plan shall be developed in consultation with Auckland Transport. The monitoring of the use of on street parking by construction staff shall be completed as part of the monitoring and review requirements as to the effectiveness of the Construction Staff Travel Plan.

Commented [A107]: The applicant had proposed the addition of an item "Specific measures to manage on-street parking adjacent [sic] the construction sites" in a further information response. B Coomer-Smit and A Crafer support this, but suggest that a formal parking management plan is required, as a component of the CTMP.

Construction Staff Travel Plan

106. At least twenty (20) working days prior to the Commencement of Construction for each stage of the Project a **Construction Staff Travel Plan** (CSTP) shall be prepared in consultation with Auckland Transport and the Wynyard Quarter ~~Travel~~ Transport Management Association. The CSTP shall be submitted to the Team Leader **Compliance Monitoring** - Central ~~Monitoring for certification~~ in terms of the matters in Condition 108. The certified CSTP shall be implemented throughout the entire construction period.
107. The purpose of the CSTP is to ensure that the construction activities will be managed to minimise private vehicle travel associated with construction activities.
108. The CSTP shall include:

a) No provision for onsite parking for construction staff;

a)b) ~~Any~~ provision of car or van pooling from contractor depots outside the Wynyard Viaduct Precincts or City Centre; ~~and~~

c) Providing staff with information on preferential parking locations and rates for those ride sharing;

b) ~~Details on the use and management of on-site car parking at each of the bases, including prioritising car parking spaces for those car/van pooling or late working staff;~~

d) ~~Provide~~ Providing construction staff with information about recommended cycle and pedestrian routes to/from the construction sites;

e) The provision of secure cycle parking and storage facilities (for personal items) on the construction sites;

f) Providing staff with information on public transport to and from the construction sites; and

g) Informing staff that they should not park on the streets.

108A. Two (2) months after the Commencement of Construction for a Project stage, a report evaluating the CSTP shall be prepared and submitted to the Team Leader Compliance Monitoring - Central. The report shall identify:

a) The number of staff on each site, and the measures that have been put in place to facilitate and encourage staff to use active modes (walking/running, cycling), public transport (bus, train, ferry) and shared modes of transport;

b) The outcomes of the implementation of the CSTP including:

i. the number of staff travelling by various transport modes to and from the sites; and

ii. the use of on-street parking by construction staff;

c) Any adverse safety and operational effects resulting from staff travel to and from the sites.

108B. Should the report identify adverse effects from staff travel on the transport network, the Consent Holder shall promptly prepare and submit an amendment to the CSTP for certification by the Team Leader Compliance Monitoring – Central that will actively discourage private vehicle modes of transport.

108C. A further evaluation report shall be prepared and submitted to the Team Leader Compliance Monitoring - Central nine (9) months after the Commencement of Construction in accordance with the requirements of Conditions 108A and 108B above.

Construction Noise and Vibration

109. Construction noise shall comply with the following Project Standards unless otherwise provided for in the CNVMP (refer Condition 0).

Commented [A108]: Blue shaded text added by applicant in further information response. First item concerning on site parking has been deleted, as there is to be no onsite parking for construction staff (See Beca TA report, paragraph 7.9, page 93). Amendment to second item is suggested edit by B Coomer-Smit and A Crafer.

Commented [A109]: Amendments / new conditions regarding construction noise and vibration are recommended by J Styles.

<u>Days</u>	<u>Times</u>	<u>L_{Aeq} (30min)</u>	<u>L_{AFmax}</u>
Monday to Friday	0630 – 2230	75	90
Saturday	0700 – 2300	80	90
Sunday	0900 – 1900	65	85
All other times (night time)		60	75
<u>Monday to Saturday</u>	<u>0700 to 2230</u>	<u>75</u>	<u>90</u>
<u>Sunday</u>	<u>0900 to 1900</u>	<u>65</u>	<u>80</u>
<u>All other times</u>		<u>60</u>	<u>75</u>

109A. Vibration arising from construction activities which may affect people and buildings shall be measured in accordance with ISO 4866:2010 Mechanical vibration and shock – Vibration of fixed structures – Guidelines for the measurement of vibrations and evaluation of their effects on structures, and shall comply with the Category A vibration standards in the table below:

<u>Receiver</u>	<u>Details</u>	<u>Category A</u>	<u>Category B</u>
<u>Occupied dwellings, hotels and motels</u>	<u>Night-time 2000h - 0630h</u>	<u>0.3mm/s PPV</u>	<u>1mm/s PPV</u>
	<u>Daytime 0630h - 2000h</u>	<u>1mm/s PPV</u>	<u>5mm/s PPV</u>
<u>Other occupied buildings</u>	<u>At all times</u>	<u>2mm/s PPV</u>	<u>5mm/s PPV</u>
<u>All other buildings</u>	<u>At all times</u>	<u>5mm/s PPV</u>	<u>Tables 1 and 3 of DIN4150-3:1999</u>

109B. Vibration from construction activities may only exceed the Category A standards subject to compliance with management procedures specific to each activity and receiver set out in the CNVMP required by Condition 110.

109C. Vibration may only exceed Category B standards at existing buildings located on Hobson Wharf and within the CMA, and only subject to compliance with the management procedures set out in the CNVMP required by Condition 110.

110. At least five (5) working days prior to Commencement of Construction, the consent holder must update the Draft Construction Noise and Vibration Management Plan (CNVMP) included in the consent application and submit it to the Team Leader Compliance Monitoring – Central Monitoring for certification. The purpose of the CNVMP is to provide a framework for the development and implementation of the Best Practicable Option (BPO) for the management of all construction noise and vibration effects, and additionally to define the

Commented [A110]: The intention is to capture the Maritime Museum.

procedures to be followed when the noise and vibration standards in the CNV conditions are not met following the adoption of the BPO. The CNVMP shall be in general accordance with the draft Construction Noise and Vibration Management Plan, (prepared by Marshall Day Acoustics Rp 007 r05 20171213, Application Document 23) with any changes from that revision to be marked up with tracked changes and shall include:

- a) A description of the works;
- b) Hours of operation, including a specific section on works permitted at night, incorporating clear definitions of the works permitted to be undertaken at night;
- c) Contact details for staff responsible for implementation of the CNVMP;
- d) The construction noise and vibration performance standards for the project;
- d)e) Minimum separation distances from receivers for plant and machinery where compliance with the construction noise and vibration standards is achieved;
- f) Identification of affected sensitive receivers where noise and vibration performance standards apply;
- e)g) A specific section setting out the predicted noise and/or vibration levels, mitigation, monitoring and management measures (including communication with stakeholders) that will be adopted for works which cannot comply with the project standards specified in Conditions 109 and 109A. This section shall include the information above for each activity that cannot practicably comply. This section may be in the form of site specific plans which would require certification from the Council before the works can proceed.
- f)h) Management and mitigation options, including the relevant measures from Annex E of NZS 6803:1999 "Acoustics – Construction Noise" and Appendix B of DIN 4150-3:1999 "Structural vibration – Part 3 Effects of vibration on structures", and a procedure to manage the underwater noise effects on marine mammals from impact and vibratory piling methods, including defined marine mammal management zones, marine mammal observation procedures, measurements of underwater noise at the commencement of vibratory and impact piling to calibrate underwater noise model, and procedures to adopt when marine mammals are present inside the management zones.
- g)i) Methods and frequency of monitoring and reporting; and
- i) Communication, consultation and complaints response protocol, including specific provisions for determining the times that receivers are sensitive to noise and how high noise and vibration works can be scheduled around those times (including residential, office, hospitality and tourism activities).

110A. In all cases, piling work may not commence until the absence of marine mammals inside the effects management zones identified in the CNVMP is confirmed. All piling work shall cease in the event that a marine mammal is detected within the effects management zones identified in the CNVMP.

Construction Lighting Management Plan

111. The consent holder shall prepare and submit a **Construction Lighting Management Plan** (CLMP) or plans to the Team Leader Compliance Monitoring – Central ~~Monitoring~~ for certification in terms of the matters in Condition 112.

112. The purpose of the CLMP is to minimise any potential impacts of construction lighting required by the works.

113. The CLMP shall include:

- a) Construction lighting poles and luminaires that project light forward and sideways (i.e., zero tilt); ~~and~~
- b) No lights being directed towards the night sky;
- c) A map of the surrounding light sensitive areas;
- d) Design to comply with the E24.6.1 General Standards in the AUP:OP, including rule E24.6.1(6)(b);
- e) Planning and setup measures to minimise spill light and glare; and
- f) Other measures such as construction vehicle headlight sweep, construction vehicle warning lights/beacons, construction vessel lights.

Commented [A111]: Amendments to condition 113 recommended by G Wright.

Decommissioning Biosecurity Management Plan

114. ~~In the event that any decommissioning of America's Cup Infrastructure is carried out, the Consent Holder shall submit a Decommissioning Biosecurity Management Plan (DBMP) to the Team Leader – Central Monitoring at least 20 working days prior to any works being carried out for certification in terms of the matters in Condition 116.~~

Prior to the installation of any structures or undertaking any dredging, the consent holder shall lodge a Biosecurity Management Plan (BMP) with the Team Leader Compliance Monitoring Central for certification in terms of the matters in condition 116. The consent holder shall also lodge an updated BMP for re-certification prior to the decommissioning of any America's Cup Infrastructure. The consent holder shall implement the BMP following its (re)certification.

Commented [A112]: Amended conditions 114 – 116 are recommended by K Sivaguru.

115. The purposes of the ~~DBMP~~ is-are:

- a) to avoid the spread of any unwanted/biosecurity risk species to the site during construction works;
- b) to avoid the spread of any unwanted/biosecurity risk species from the site to other locations during construction works, construction decommissioning and post-event decommissioning;
- c) to ensure that decommissioning of America's Cup Infrastructure is carried out in a manner that minimises the risk of any ~~biosecurity~~-threats from unwanted/biosecurity risks species and / or the transfer of those threats off-site.
- d) to ensure that any operators of any vessels visiting the event are aware of their obligations to avoid the spread of any unwanted/biosecurity risk species to Hauraki Gulf or offshore islands.

116. The ~~DBMP~~ shall include:

- a) Identification of any unwanted/biosecurity risk~~non-indigenous (threat)~~ species present;
- b) Identification of the potential for transfer of threat species off-site; and

c) Measures to avoid or minimise transfer of unwanted/biosecurity species, during construction works, construction decommissioning and post event decommissioning of Infrastructure threat species:-

c)d) Measures to ensure that any operators of any vessels visiting the event are aware of their obligations to avoid the spread of any unwanted/biosecurity risk species to Hauraki Gulf or offshore islands.

Inner Viaduct Harbour and Wynyard Wharf South Water Space Environmental Management Plan

Commented [A113]: Inclusion of Wynyard Wharf South Water Space in this section is recommended by S Morgan.

117. The consent holder shall submit an **Inner Viaduct Harbour and Wynyard Wharf South Water Space Environmental Management Plan** (IV**WWS**HEMP) to the Team Leader Compliance Monitoring – Central ~~Monitoring~~ for certification in terms of the matters in Condition 119 .

118. The purpose of the IV**WWS**HEMP is to provide for the appropriate management of effects on the environment of the Inner Viaduct Harbour and the Wynyard Wharf South Water Space from works authorised by this consent.

119. The IV**WWS**HEMP shall include:

- a) Identification of key ecological communities within the Inner Viaduct Harbour, ~~and~~ Lighter Quay and Wynyard Wharf South Water Space and the establishment of fixed photo-quadrats on floating pontoons, basin walls and piles;
- b) Identification whether the current ecological communities are influenced by the existing flushing within the Inner Viaduct Harbour;
- c) ~~Monitoring of T~~the monitoring points shall be monitored once every ~~12~~ three (3) months;
- d) Water quality monitoring and aesthetic observations (identification of sheens, floatables, rubbish);
- e) Aesthetic monitoring to be carried out monthly along with photographic record;
- f) Sampling following at least three storm events corresponding to a);
- g) Confirmation of sediment quality at water quality monitoring locations. Sediment quality characterisation to include sediment core photographs, TOC, redox, TPH, copper, lead and zinc;
- h) An assessment of the following matters:
 - (i) Whether water quality in the Inner Viaduct Harbour and Wynyard Wharf South Water Space is suitable for contact recreation; and
 - (ii) Whether stormwater discharge to the Inner Viaduct Harbour and Wynyard Wharf South Water Space results in identifiable water quality changes.
- i) Avoidance of new, untreated stormwater discharges from surrounding development into the Inner Viaduct Harbour and Wynyard Wharf South Water Space;
- j) Waste management, including flotsam removal, litter collection from adjacent quays; ~~and~~
- k) Support for any wider Council group initiatives for the Freemans Bay catchment stormwater improvement:-

l) Provisions for reporting of monitoring findings to the Team Leader Compliance Monitoring - Central; and

k)m) Process for the Team Leader Compliance Monitoring Central to review the IVWVSEMHP after two years and either cease, modify or continue monitoring.

Trees

120. Conditions 121 to 135 apply to Trees 1, 15, 16, ~~and 17~~ and 18 as identified in the report 'Arboricultural Assessment Report America's Cup 36 – Wynyard Hobson' provided by Stuart Barton of Arbor Connect Limited dated 12 April 2018 (Application Document 18). ~~on the Tree Location Plan below (the~~ "trees to be retained") to mitigate potential adverse effects of the proposal on those trees. A copy of the tree protection methodology in Conditions 121 to 135 shall be held on site at all times.

Commented [A114]: I recommend the addition of these self-explanatory conditions.

Commented [A115]: Recommended by A Lamont.

Commented [A116]: Plan deleted and replaced with reference to location of plan in relevant report.



[above plan to be deleted]

121. A suitably experienced, arborist ("Appointed arborist") shall be employed by the consent holder, at the consent holder's expense, to monitor, supervise and direct all works within the drip line or in the vicinity of the trees to be retained, for the duration of the works.

121A. The appointed arborist shall provide advice during the detailed design phase and development of the construction methodologies and enabling works to be undertaken in Hamer Street to ensure the potential effects on trees and the number of tree removals required are minimised.

Commented [A117]: Recommended by A Lamont.

122. An integral requirement for the protection of the retained vegetation within the site will be the continued and documented monitoring of conditions during the construction process. The Appointed arborist shall maintain a log of visits to the site and works undertaken on those visits.

123. Prior to any site works (including demolition works) commencing that affect the trees to be retained, a pre-commencement site meeting shall be held so that the tree protection methodology that pertains to those trees can be explained by the Appointed arborist to all contractors or sub-contractors who will be working on site within the root zone of, or adjacent to, any of the trees to be retained.

124. The pre-commencement meeting may also be attended by Council's Arborist. The Consent Holder shall give the Team Leader Compliance Monitoring – Central Monitoring and the Council's Arborist at least 10 working days prior notice of the intended date of the meeting.

125. Prior to construction, the consent holder shall provide a report prepared by a suitably qualified and experienced arborist setting out the methodology for the relocation of any Trees 1, 16, ~~or 17~~, or 18 identified to be transplanted and their successful establishment to satisfaction of the Team Leader Compliance Monitoring – Central Compliance. These works shall be carried out by a suitably qualified and experienced arborist.

125A. All reasonable care shall be taken during the works to ensure that the trees within Hamer Street that are growing outside the project area are retained in a safe and healthy condition. Only in instances where the Appointed Arborist (taking into consideration the tree species, age, condition and tolerance to damage, root zone disturbance and pruning) can demonstrate to the satisfaction of Council's Arborist that the stability and / or long-term health of a tree is likely to be compromised by the works may the tree be removed.

Commented [A118]: Recommended by A Lamont.

125B. If feasible and proportionate to the value of the tree (in the opinion of the Appointed Arborist), any tree to be removed may be transplanted to another location or stored and replanted back within the vicinity of the project area, subject to the approval of Council's Arborist.

Commented [A119]: Recommended by A Lamont.

126. Any demolition, including the removal of asphalt surfaces, or excavation works within the root zone of any tree to be retained shall be undertaken under the supervision of the Appointed arborist.

127. All roots encountered during excavations that require severance shall be cleanly cut back to the excavation face using handsaw or secateurs, by the consent holder's nominated arborist. All exposed roots and root ends shall be covered to prevent them from drying out

by a covering of Hessian (or acceptable alternative) that is to be kept damp until the excavated area can be backfilled. Roots that will come into contact with wet concrete shall be covered by plastic prior to the concrete being poured.

128. Temporary protective fencing to protect the trees to be retained shall be installed prior to any site works, including demolition, commencing on site. The purpose of the temporary protective fencing is to provide an area around the retained trees that will facilitate their successful retention during the construction process. The exact extent and location of the temporary protective fencing shall be finalised on site before works begin, by the consent holder's nominated arborist. Although temporary, the fence shall be constructed so that it is not easily moved.
129. The area within the temporary protective fencing is to be considered a total exclusion zone as follows:
 - a) No storage of diesel, cement, building materials, site huts, spoil etc within the delineated area;
 - b) No spillages of substances likely to be injurious to tree health within seepage distance of the delineated area;
 - c) No alteration to the dimensions of the delineated area without the prior approval of the nominated arborist; and
 - d) No access into or works within the delineated area without the prior approval of the Appointed arborist.
130. The consent holder is responsible for maintaining the condition of the temporary protective fencing. The condition, repair and location of the temporary protective fencing shall be regularly inspected as part of the routine tree-monitoring programme.
131. The Appointed arborist shall undertake all remedial pruning works necessary, including the pruning of tree roots uncovered during excavations, in accordance with documented arboricultural standards.
132. During the construction process the Appointed arborist may make recommendations on the installation of irrigation systems, mulch or remedial pruning works, if they are required to improve the health of the trees.

132A. All works required to install services within Jellicoe Street shall be undertaken outside the below-ground rain garden structures.

Commented [A120]: Recommended by A Lamont.

133. Replacement planting shall be carried out for each protected tree that is removed and not transplanted. Within the planting season following the completion of work within Brigham Street, the Consent Holder shall plant a minimum of 5.0m high replacement trees on a one for one basis for those removed.
134. Replacement planting shall be carried out in accordance with correct arboricultural practices in locations that provide for the trees' long-term growth and development and shall be maintained in accordance with correct arboricultural practices for a minimum period of 2 years after planting.
135. Any replacement or transplanted tree that dies within the 2 year maintenance period shall be replaced like-for-like.

135A. The consent holder shall supply a completion memorandum to the Team Leader Compliance Monitoring – Central upon completion of all works on site. This memorandum shall include minutes of the pre-commencement meeting that is required as a condition of consent, a log of all site visits and actions undertaken by the Appointed Arborist, confirmation of the number, size, species and location of all replacement or transplanted trees, and confirmation that all required tree protection measures were adhered to for the duration of the works.

Commented [A121]: Recommended by A Lamont.

Advice note: *The consent holder is advised to consult with Auckland Council's Community Facilities Arborist (delegated by Auckland Transport to manage trees in streets) at the earliest opportunity to gain his or her approval for the works affecting trees under Community Facilities' management.*

Geotechnical Conditions

135B. The following geotechnical requirements shall apply to the Project:

(a) A Project Geotechnical Design Report (PGDR) shall be prepared and submitted for approval to the Team Leader Compliance Monitoring - Central no later than 20 working days before the Commencement of Construction. The PGDR shall include analysis and design to address specific natural hazards likely to affect the development and shall include but not be limited to:

Commented [A122]: Recommended by C Brightman. I have included this as an element of the CEMP.

- i. Investigation and assessment of the risk and effects of liquefaction under design seismic conditions including assessment and design of appropriate detailed liquefaction mitigation measures.
- ii. Assessment of the potential for the presence of acid sulphate soils within the underlying strata disturbed by the proposed development. Where acid sulphate soils are identified, the report shall include assessment of the potential environmental effects of acid sulphate soil disturbance including appropriate mitigation measures.
- iii. Detailed geotechnical assessment and design of structures and earthworks fill which demonstrates stability and appropriate performance in accordance with the current adopted design codes for the specific intended design life, considering the destabilising effects of natural hazards.

Works shall be carried out in accordance with the approved PGDR.

Commented [A123]: I recommend this addition to the wording proposed by Mr Brightman.

(b) The Consent Holder shall comply with the following conditions in relation to all geotechnical-related works (which shall also be addressed in the SSESs and CEMP):

Commented [A124]: Recommended by A Khan.

- i. Prior to the commencement of geotechnical-related works, the Team Leader Compliance Monitoring - Central shall be provided with written certification from a suitably qualified professional that all trenches for the purpose of drainage (manholes and drains), fill and foundations (if any) have been provided with adequate support and protection so they will not lead to instability.
- ii. The trenches, retaining walls and building foundations shall be supervised by a suitably qualified engineering professional. In supervising the works, the

suitably qualified engineering professional shall ensure that trenches for the purpose of drainage (manholes and drains), fill and foundations (if any), have been provided with adequate support and protection so they will not lead to instability.

iii. Following completion of the relevant works, certification from a suitably qualified engineering professional responsible for supervising the works shall be provided to the Team Leader Compliance Monitoring - Central, confirming that the trenches for the purpose of drainage (manholes and drains), fill and foundations, did not lead to any instability.

(a)(c) All geotechnical-related earthworks shall be managed to ensure that they do not lead to any uncontrolled instability or collapse either affecting the site or adversely affecting any neighbouring properties. In the event that such collapse or instability does occur, it shall immediately be rectified.

Commented [A125]: Recommended by A Khan.

Wastewater and Water Supply

135C. The following requirements shall apply to all wastewater and water supply works:

Commented [A126]: Recommended by A Khan.

(a) The Consent Holder shall design the wastewater drains and water supply in accordance with the wastewater and water supply drawings referred to in Condition 13 and the Annexure to these consents.

(b) Wastewater and water drains shall be provided on the following: Wynyard Wharf permanent infill sections; Hobson Wharf extension Halsey Wharf and Wynyard Point bases.

(c) Construction of the physical Infrastructure with respect to wastewater and water supply shall be undertaken in accordance with the drawings provided by Beca plan/s titled Proposed Services Drawings 2, Services, Sheet 1 of 6 to 6 of 6, reference numbers 3233847-CU-4452, Rev B, to reference numbers 3233847-CU-4457, Rev B and dated March 2018 in full consultation with Watercare Services (as per the Watercare review, Referenced 72816) and Auckland Council. Confirmation of construction works must be in the form of an engineering completion report or any other form acceptable to Watercare Services and Auckland Council.

Pre-Construction Meeting

(d) A pre-construction meeting shall be held by the consent holder, prior to commencement of the construction of any wastewater and water supply works, that:

(i) Is arranged five working days prior to initiation of the construction of any wastewater and water supply works on the site;

(ii) Is located on the subject area;

(iii) Includes representation from the Team Leader Compliance Monitoring - Central; and

(iv) Includes representation from the site engineer and contractors who will undertake the works and any other relevant parties

(e) The following information shall be made available prior to, or at the pre-construction meeting:

(i) Timeframes for key stages of the works authorised under this consent;

(ii) Contact details of the site contractor and site engineer; and

(iii) Construction plans certified (signed/stamped) by an Auckland Council Development Engineer.

Post-construction meeting

(f) A post-construction meeting shall be held by the consent holder, within 20 working days of completion of the wastewater and water supply works, that:

(i) Is located on the subject area;

(ii) Includes representation from the Team Leader Compliance Monitoring - Central; and

(iii) Includes representation from the site engineer and contractors who have undertaken the works and any other relevant parties.

As Built Drawings

(g) No later than 30 working days after the practical completion of the project or of any project stage which is subject to separate practical completion, the Consent Holder shall supply As-Built Drawings for the wastewater and water supply works to the Team Leader Compliance Monitoring – Central.

Advice Note: All new and temporary public water and wastewater infrastructure including connection points to the existing systems will require an approval from Watercare Services and an Engineering Plan Approval from Auckland Council. All new and temporary private wastewater infrastructure will require a Building Consent from Auckland Council.

Post Construction Requirements

Industrial and Trade Activities

Stormwater Treatment Devices

136. Stormwater treatment devices for the ITAs shall be provided as set out in Conditions 148 to 149.

137. Stormwater treatment devices for the ITAs shall be operated and maintained in accordance with the ITA HSEMPs.

Commented [A127]: All changes to following conditions recommended by G Chuah and H Johnson. A number of conditions have been relocated with edits. These changes are generally explained in the comment boxes.

Commented [A128]: Applicant's condition 140 relocated here with amendments.

Commented [A129]: Applicant's condition 141 relocated here with amendment.

Industrial and Trade Activities Environmental Management Plans

138. At least ~~twenty~~ (20) working days prior to Industrial and Trade Activities occurring on site, the consent holder shall prepare and submit Industrial and Trade Activities Hazardous Substances and Environmental Management Plans (ITA HSEMPs) to the Team Leader Compliance Monitoring – Central ~~Monitoring~~ for certification in terms of the matters in Condition ~~439~~141.
139. The purpose of the ITA HSEMPs is to set out the Best Practicable Option (BPO) approach to avoid, remedy or mitigate potential adverse effects arising from the ITAs, including treatment devices, operational procedures and management systems.
140. The ~~C~~consent ~~H~~holder shall ensure that each site is operated and managed in accordance with the ITA HSEMPs for the duration that the ITA continues and / or any hazardous substance is stored or used at that site.
141. The ITA HSEMPs shall include the following:
 - a) Site location, activities, layout and drainage plans;
 - b) Identification of potential contaminants associated with the activities conducted on the site/s, methods to avoid, control and treat discharges of these from the site/s, and methods to manage environmental risks from site activities as far as practicable;
 - c) Identification of hazardous substances on site;
 - d) Operation and maintenance procedures for treatment devices, which may be contained in a separate plan cross referenced in the ITA HSEMP as required by Condition ~~452~~ 150 (design report for stormwater treatment);
 - e) Roles and responsibilities associated with the ITA HSEMP;
 - f) Methods for providing and recording staff training on the ITA HSEMP;
 - g) A programme for auditing site performance against the ITA HSEMP provisions; and
 - h) Reporting and review of the ITA HSEMP.

Commented [A130]: Applicant's conditions 136 - 139 relocated here with amendments.

Industrial and Trade Activities Emergency Spill Response Plans

142. Prior to occupation of the syndicate bases, the ~~C~~consent ~~H~~holder shall prepare Industrial and Trade Activities Emergency Spill Response Plans (ITA ESRPs) for the syndicate bases (~~one ESRP~~), which shall be submitted to the Team Leader Compliance Monitoring – Central ~~Monitoring~~ for certification in terms of the matters in Condition ~~447-145~~ below.
143. The purpose of the ITA ESRPs is to set out the operational procedures and management systems to mitigate the risk of spills from the ITAs.
144. The ITA ESRP shall apply to, and be kept on site and accessible on each site for the duration that the ITA continues at that site.
145. The ITA ESRPs shall include the matters in Appendix A to the America's Cup Stormwater and Services Technical Report prepared by Beca, dated April 2018.

Commented [A131]: Applicant's conditions 144 – 147 relocated here with amendments.

Reporting

146. The ~~C~~consent ~~H~~holder shall submit a report to the Team Leader Compliance Monitoring – Central Monitoring every two years~~annually~~ in a month to be agreed following the date that ITAs and/or hazardous substance handling or storage commenced at the sites. The report shall include:
- a) The performance of the sites against the ITA HSEMP provisions, including the results of any audits required under Condition ~~439~~141;
 - b) Inspection and maintenance records for the stormwater treatment devices;
 - b)c) Results and interpretation of the stormwater device monitoring programme;
 - c)d) Records of any spills or incidents which occurred within the previous reporting period and the response undertaken; and
 - d)e) Any updated sections of the ITA HSEMP resulting from the review required under Condition ~~439~~141.
147. The ~~C~~consent ~~H~~holder shall report to the Auckland Harbourmaster or the Auckland Council's 24 Hour Water pollution Hotline (09 377 3107) all spills of Hazardous Substances of Classes 1 to 6, 8 and 9 over 20 litres and all spills of other substances over 50 litres that have entered the stormwater system or a water body from the ITA sites.

146A. The Team Leader Compliance Monitoring – Central shall be notified in writing within 10 working days of the boat repair and maintenance operations commencing on site.

Commented [A132]: Applicant's conditions 142 and 143 relocated here with amendments.

Stormwater Management

Stormwater Systems and Treatment Devices

148. ~~The Consent Holder shall design the stormwater systems and treatment devices in general accordance with the stormwater drawings referred to in Condition 13.~~

The following stormwater management works shall be constructed for the following catchment areas and design requirements, and shall be completed prior to discharges commencing from the site:

<u>Catchment</u>	<u>Works</u>	<u>Design requirement(s)</u>
<u>Wynyard Wharf permanent infill sections – trafficked areas</u>		
<u>Hobson wharf extension – trafficked areas</u>	<u>Stormwater360 Stormfilter or similar approved device</u>	<u>• 75% TSS removal</u>
<u>Wynyard point bases – trafficked areas</u>		

149. ~~Stormwater treatment devices shall be provided on the following:~~

- ~~a) Wynyard Wharf permanent infill sections;~~
- ~~b) Hobson Wharf extension; and~~
- ~~c) Wynyard Point bases.~~

~~In the event that any modifications to the stormwater management system are required, that will not result in an application pursuant to section 127 of the RMA, the following information shall be provided:~~

- ~~• Plans and drawings outlining the details of the modifications; and~~
- ~~• Supporting information that details how the proposal does not affect the capacity or performance of the stormwater management system.~~

~~All information shall be submitted to and approved by the Team Leader Compliance Monitoring - Central prior to implementation of the modifications.~~

150. ~~The stormwater treatment devices shall be designed to remove 75% of suspended sediment discharges for the design water quality event.~~

At least twenty (20) working days prior to construction of the proposed stormwater systems and treatment devices, the Consent Holder shall submit a design report to the Team Leader Compliance Monitoring - Central for certification, including detailed engineering drawings, specifications, and calculations for the stormwater treatment devices. The details shall include:

- a) Confirmation that the design achieves the requirements of Conditions 148, 149 and 150;
- b) Contributing catchment size and boundaries and impervious percentage;
- c) Specific design and location of stormwater treatment devices; and
- d) Supporting calculations for stormwater treatment devices, including capacity and suspended solid removal efficiency.

151. **[not used]** ~~The consent holder may make modifications to the stormwater systems and treatment devices shown on these drawings, including the use of alternative Council approved stormwater treatment devices, subject to the certification of the Team Leader - Central Monitoring as set out in Conditions 153 and 154.~~

~~152.~~

~~153-152. **[not used]** At least 20 working days prior to construction of the proposed stormwater systems and treatment devices, the Consent Holder shall submit a design report, including detailed engineering drawings, specifications, and calculations for the stormwater treatment devices. The details shall include:~~

- ~~a) Confirmation that the design achieves the requirements of Conditions 149 and 150;~~
- ~~b) Contributing catchment size and boundaries and impervious percentage;~~
- ~~c) Specific design and location of stormwater treatment devices; and~~
- ~~d) Supporting calculations for stormwater treatment devices, including capacity and suspended solid removal efficiency.~~

Commented [A133]: The applicant's condition 149 has been deleted – see Council's condition 148.

Commented [A134]: This condition replaces the applicant's condition 151.

Commented [A135]: The applicant's condition 150 has been deleted – see Council's condition 148. The Council's condition 150 was the applicant's condition 152.

153. [not used] ~~Prior to construction of the stormwater systems and treatment devices, the design report prepared under Condition 152 shall be submitted to the Team Leader – Central Monitoring for certification that the report includes the matters listed in Condition 152.~~
154. [not used] ~~Any amendments that may affect the performance of the stormwater systems and treatment devices certified under Condition 153 shall be certified by the Team Leader – Central Monitoring prior to the planned implementation of the amendments, following the same process as in Condition 152 above.~~

Pre-construction meeting

155. A pre-construction meeting shall be held by the consent holder, **prior** to commencement of the construction of any stormwater devices onsite, that:
- Is arranged five working days prior to initiation of the construction of any stormwater devices on the site;
 - Is located on the subject area;
 - Includes representation from the Team Leader – Compliance Monitoring – Central; and
 - Includes representation from the site stormwater engineer and contractors who will undertake the works and any other relevant parties
156. The following information shall be made available prior to, or at the pre-construction meeting
- Timeframes for key stages of the works authorised under this consent;
 - Contact details of the site contractor and site stormwater engineer; and
 - Construction plans certified (signed/stamped) by an Auckland Council Development Engineer.

Post-construction meeting

157. A post-construction meeting shall be held by the consent holder, within twenty (20) working days of completion of the stormwater management works, that:
- Is located on the subject area;
 - Includes representation from the Team Leader – Compliance Monitoring – Central; and
 - Includes representation from the site stormwater engineer and contractors who have undertaken the works and any other relevant parties.

Advice Note: *To arrange the pre-construction or post-construction meeting required by this consent, please contact the Team Leader – Compliance Monitoring Central on phone 09 3010101 or monitoring@aucklandcouncil.govt.nz.*

As Built Drawings

158. No later than thirty (30) working days after the practical completion of the project or of any project stage which is subject to separate practical completion, the ~~C~~consent ~~H~~holder shall supply As-Built Drawings for the stormwater systems and treatment devices to the Team Leader Compliance Monitoring – Central~~Monitoring~~.

159. The As-Built Drawings shall be signed off by a Chartered Professional Engineer on behalf of the consent holder and shall include:

- a) The as-built locations of stormwater reticulation, treatment devices and outfalls expressed in terms of the New Zealand Transverse Mercator Projection and Chart Datum to the nearest 0.1 m for location and 0.01m for level;
- b) Stormwater treatment device details including dimensions, design capacity, treatment efficiencies, inlet/outlet levels and discharge rates;
- c) Photographs at all stormwater outfall locations; and
- d) Documentation of any discrepancies between the approved design plans under Conditions ~~150 453 and 453~~ and the As-Built Drawings.

Operation and Maintenance Plan

160. An Operation and Maintenance Plan shall be provided to the Team Leader— Compliance Monitoring - Central five (5) days prior to the post-construction meeting required by this consent for certification.

161. The Operation and Maintenance Plan shall set out how the stormwater management system is to be operated and maintained to ensure that adverse environmental effects are minimised. The plan shall include:

- a) Details of who will hold responsibility for long-term maintenance of the stormwater management system and the organisational structure which will support this process;
- b) A monitoring programme to determine maintenance frequency;
- c) A programme for regular maintenance and inspection of the stormwater management system;
- d) A programme for the collection and disposal of debris and sediment collected by the stormwater management devices or practices;
- e) A programme for post storm inspection and maintenance;
- f) A programme for inspection and maintenance of the outfalls;
- g) General inspection checklists for all aspects of the stormwater management system, including visual checks

162. The Operation and Maintenance Plan shall be updated and submitted to the Team Leader —Compliance Monitoring - Central for certification, upon request.

Maintenance Contract

163. A written maintenance contract for the on-going maintenance of the proprietary device(s) shall be entered into with an appropriate stormwater management system operator, prior to the operation of any proprietary stormwater management device(s). A written maintenance contract shall be in place and maintained for the duration of the consent.

Commented [A136]: Recommended by G Chuah and H Johnston.

164. A signed copy of the contract required shall be forwarded to the Team Leader— Compliance Monitoring - Central five (5) days prior to the post-construction meeting required by this consent.

165. A copy of the current maintenance contract shall be provided to the Team Leader Compliance Monitoring – Central Auckland Council upon request throughout the duration of the consent.

Maintenance Report

166. Details of all inspections and maintenance for the stormwater management system, for the preceding three years, shall be retained.

167. A maintenance report shall be provided to the Team Leader ~~–Compliance Monitoring – Central~~ on request.

168. The maintenance report shall include the following information:

- a) Details of who is responsible for maintenance of the stormwater management system and the organisational structure supporting this process;
- b) Details of any maintenance undertaken; and
- c) Details of any inspections completed.

Pre-Occupation Conditions

Wynyard Point Bases Hazardous Substances Risk Emergency Plan

Location of Base Buildings

169. The location of the Base Buildings C-G shall be in accordance with plans in Condition 13, including the location and layout of the hardstand areas for each base.

Detailed Design

170. Bases C-D shall be assessed by a chartered engineer to any particular requirements for fire resistance to an external hydrocarbon fire and protection from toxic vapour releases. The design to be adopted shall ensure that there is sufficient time for an alarm and evacuation to occur without structural compromise or ignition of the building occurring and if necessary shall include:

- a) Design details and materials used to provide fire resistance for the walls, floors and roofs, including detail of the fire resistance of any windows, doors or entranceways fronting Hamer Street;
- b) Details regarding the need and suitable location of a sensor (or sensors) to detect a toxic vapour release from the Stolthaven Wynyard (north) facility;
- c) A requirement that occupiers of Base Buildings C-D cannot fit mechanical ventilation systems (such as air conditioning units) that draw air from outside the building unless the system can be automatically shut down in an emergency;
- d) Location of entrances, access points to the bases and fencing fronting Hamer Street; and
- e) Design details of the emergency access route along the eastern side of the Base Buildings including openable gates to ensure unimpeded access southwards during an emergency.

Commented [A137]: Recommended by R Van de Munckhof in his hazardous substance risk assessment report.

Occupant Numbers

171. The total number of people at any one time at Bases C and D shall not exceed 410 persons per base and at Bases E to G shall not exceed 370.

Commented [A138]: Recommended by R Van de Munckhof in his hazardous substance risk assessment report.

Pedestrian Access

172. In addition to the absence of footpaths or any activities or amenities that would attract people to the area on Hamer Street and Brigham Street north of Base C, the ~~C~~consent ~~H~~holder shall ensure (through the process put in place by Condition 25) that the detailed design of the public realm strongly discourages pedestrian access.

Commented [A139]: I consider there needs to be a connection between this and the process put in place in condition 25. In the absence of this link, it is unclear how the Council will have input.

173. The Consent Holder shall put in place measures to restrict public access to the Wynyard Wharf east breakwater when a dangerous goods tanker is berthed at Wynyard Wharf.

Emergency Evacuation Plan

174. Prior to the occupation of Base Buildings C-G, the consent holder shall prepare and submit a comprehensive **Emergency Evacuation Plan (EEP)** for Bases C-G to the Team Leader Compliance Monitoring – Central ~~Monitoring~~ for certification that the EEP is sufficient in terms of the matters in Condition 175 below.

175. The ~~EP~~Emergency Evacuation Plan shall include provisions to cater for any emergency which may arise from a fire, explosion, or the release of toxic vapour occurring on the Stolthaven Wynyard (north) hazardous substances facility or their external product lines to Wynyard Wharf. The EEP shall also:

- a) Include an evacuation scheme prepared in accordance with the Fire and Safety Evacuation of Buildings Regulations 2006 or any amendment to this document which shall also take into account any additional items which may arise and are considered appropriate in respect of any hazardous incident associated with a fire, explosion, or the release of toxic vapour occurring on the Stolthaven Wynyard (north) hazardous substances facility or its external product lines to Wynyard Wharf. In particular, consideration shall be given to:

(i) Alarm systems;

(ii) Details regarding the need and suitable location of a sensor (or sensors) to detect a toxic vapour release from the Stolthaven Wynyard (north) facility;

Commented [A140]: Recommended by R Van de Munckhof in his hazardous substance risk assessment report.

(iii) Evacuation and egress times;

(iv) Emergency services access;

(v) Provision of appropriate information;

(vi) Information on direction of egress; and

(vii) Induction and training of staff.

- b) Ensure continuous evacuation routes from the Bases, which should be via a choice of alternative routes via the Syndicate Base yards, the ~~Northern-South~~ connector road and Hamer Street, or through the base yards to Brigham Street entrance;

Commented [A141]: Recommended by B Coomer-Smit and A Crafer to use the correct terminology.

- c) Include a provision requiring the EEP to be reviewed at a minimum of 12 month intervals, commencing from the date of first occupation of the Bases. This shall take into account any learnings from the implementation of the EEP in the prior 12 months in response to a hazardous incident occurring; and

d) Be consistent with the guidance in the *Emergency Evacuation Plan: Jellicoe Street, Silo Park & Gateway Plaza, Wynyard Quarter Auckland (by Holmes Fire Safety, 25 May 2011 Rev B)*.

d)e) The EEP shall be reviewed by a suitably qualified expert to ensure that the Base design and evacuation procedures are sufficient to ensure evacuation in the event of a toxic vapour release from the Stolthaven Wynyard (north) facility. The review shall be submitted to the Team Leader Compliance Monitoring - Central at least 30 days prior to occupation of the bases.

Commented [A142]: Recommended by R Van de Munckhof in his hazardous substance risk assessment report.

Wynyard Wharf South Water ~~s~~Space area

176. Prior to the berthing of super yachts in the Wynyard Wharf South Water ~~s~~Space area, the current emergency plan for North Wharf (*Emergency Evacuation Plan: Site 14 Redevelopment, Wynyard Quarter Auckland (by Holmes Fire Safety, 25 May 2011 Rev B)*) shall be updated to ensure egress / evacuation arrangements are included for super yachts berthed in this area that could be potentially affected by an ammonia release from the nearby Sanford facility or a toxic vapour release from the Stolthaven Wynyard (North) facility.

Commented [A143]: Recommended by R Van de Munckhof in his hazardous substance risk assessment report.

Advice Note: *The consent holder and Auckland Transport is advised they will need to ensure adequate access for emergency service vehicles to the Wynyard Wharf South area is maintained for the duration of the occupation of the bases. In particular, the consent holder and Auckland Transport are advised of the following safety-related implementation actions:*

- *Management of public access onto Hamer Street north of Base C and onto the Wynyard east breakwater during the Event (through the Event Management Plan) by establishing access cordons at the access points to these areas;*
- *The Event parking and any public parking is limited to land areas in Wynyard Precinct that are south of Jellicoe Street, or are located outside the Precinct.*

Servicing, Delivery and Guest Transport Plans

177. At least 20 working days prior to the commencement of use of the syndicate bases and superyacht facilities on Wynyard Point, Halsey Wharf and Hobson Wharf, Servicing, Delivery and Guest Transport Plans (SDGTPs) for each location shall be prepared in consultation with the Wynyard Quarter ~~Travel-Transport~~ Management Association, Auckland Transport, and relevant stakeholders identified in Condition 36 in terms of the matters in Condition 179. The SDGTPs shall be submitted to the ~~Team Leader - Central Monitoring~~ Team Leader Compliance Monitoring - Central and Auckland Transport for certification by the Team Leader Compliance Monitoring - Central in terms of the matters in in Condition 179.

Commented [A144]: B Coomer-Smit and A Crafer recommend amendments to the conditions relating to servicing, delivery and guest transport plans.

178. The purpose of the SDGTPs is to address the management, timing and location of servicing of and deliveries to the bases for activities prior to the event (i.e. operational phase), and the management, timing and location of servicing of, deliveries to and guest transport to the bases and any other activities for activities during the event phases. The SDGTPs shall identify any potential effects on property access, and where required shall include measures to mitigate adverse effects on property access.

179. The SDGTPs shall, as applicable to the operations they address, ~~shall comprise~~include the following:

a) ~~A~~For Wynyard Point i.e. for Bases C, D, E, F and G, Servicing, Delivery and Guest Transport Plan to address servicing and delivery and to communicate to guests of hosted events the transport management arrangements, including the following measures:

~~(i) No Vehicles associated with the~~ pick-up and drop-off of guests by taxi and private/hired vehicles at the Wynyard Point bases shall be ~~minimised~~permitted within Wynyard Quarter between 4pm and 6pm on weekdays (except Public Holidays). ~~This includes taxis and private vehicles;~~

~~(ii)~~(ii) Identify pick-up and drop-off zones in the wider area in consultation with Auckland Transport, and communicate the identified location to guests;

~~(iii) Alternative pick-up and drop-off points outside of Wynyard Quarter are communicated to guests who are arriving and departing between 4pm and 6pm on weekdays (except Public Holidays);~~

~~(iii)~~(iii) During the event phases, parking for base guests at Wynyard Point bases shall be limited to up to a total of no more than 20 spaces. No staff parking shall be permitted on Wynyard Point bases during the events;

(iv) Guests who choose to use private vehicles to attend events at bases will be encouraged through communication to park in ~~nearby~~ public car parks outside of Wynyard Quarter;

(v) The public transport options close to Wynyard Point bases will be communicated to guests;

(vi) Taxi and private hire operators ~~will~~shall be ~~made aware~~informed of the timing restrictions and alternative pick and drop off points noted above and of on-site drop-off and pick-up arrangements; and

~~(vii)~~(vii) The on-street parking for private vehicles on Hamer Street and Brigham Street will be temporarily suspended on racing days during the Eevent phase (likely to be approximately 30 days) and will not be available for public parking (excluding the 'Goods Vehicle Only' spaces);

~~(viii)~~(viii) No servicing, rubbish collection and deliveries shall occur between 4pm and 6pm unless it involves urgent equipment necessary to avoid delay in racing; and

~~(ix)~~(ix) Communicate servicing, rubbish and delivery contractors and drivers of arrangements for access, including where loading docks are located.

b) ~~A~~For Halsey Wharf i.e. for Base A (ETNZ VEC base) Servicing, Delivery and Guest Transport Plan to address servicing and delivery and to communicate to guests of hosted events the transport management arrangements, including the following measures:

(i) Vehicles including taxis and private/hired vehicles associated with the pick-up and drop-off of guests at the ~~ETNZ VEC~~ base and for superyachts shall be minimised within Wynyard Quarter between 4pm and 6pm on weekdays (except Public Holidays). ~~This includes taxis and private vehicles;~~

Commented [A145]: This condition conflicts with condition 182(c)(iv) below, which suggests there will be no guest parking. If parking is allowed, it should be for guests not staff.

- ~~(ii) Alternative pick up and drop off points outside of Wynyard Quarter are communicated to guests who are arriving and departing between 4pm and 6pm on weekdays (except Public Holidays);~~
 - ~~(iii)(ii) Parking on Wharf shall be limited to up to 18 staff car parking spaces. There shall be no onsite parking for guests at any time;~~
 - ~~(iv)(iii) No parking or pick up/drop-off by taxis or private/hired vehicles on Halsey Wharf for guests attending an event at the base or on a superyacht;~~
 - ~~(iv)(iv) Guests who choose to use private vehicles to attend events at the bases or on superyachts will shall be encouraged through communication to park in nearby public car parks outside of Wynyard Quarter;~~
 - ~~(iv)(v) The public transport options close to the ETNZ VEC base will be communicated to guests;~~
 - ~~(vii) Limited use of the existing VEC taxi drop-off zone close to the front door for guests in combination with other pick-up and drop-off zones potentially located on Madden Street;~~
 - ~~(viii)(vi) Identify Communicate to guests the availability of any temporary pick-up drop-off zones on Madden Street in the wider area in consultation with Auckland Transport, and communicate the identified location to guests;~~
 - ~~(ix)(vii) Make Inform taxi firms and private hire operators aware there is that no on-site drop-off and pick-up arrangements shall be permitted on Halsey Wharf with the exception of disabled passengers; and the taxi ranks within Wynyard Quarter should not be used shall be permitted between 4pm and 6pm on weekdays (except Public Holidays); and~~
 - ~~(viii) Promote taxis ranks on Jellicoe Street and further away on Lower Hobson Street to guests.~~
 - ~~(ix) No servicing, rubbish collection and deliveries shall occur between 4pm and 6pm unless it involves essential deliveries, necessary to avoid delay to racing; and~~
 - ~~(x) Communicate servicing, rubbish and delivery contractors and drivers of arrangements for access, including where loading docks are located.~~
- c) ~~A For Hobson Wharf Servicing i.e. for Base B, Delivery and Guest Transport Plan~~ to address servicing and delivery and to communicate to guests of hosted events the transport management arrangements and to provide ~~for~~ coordination of the servicing/deliveries to the NZ Maritime Museum and Eastern Viaduct, including the following measures:
- (i) No parking on Hobson Wharf for guests attending an event at the base or on a superyacht;
 - (ii) Guests who choose to use private vehicles to attend events at Bases B will be encouraged through communication advised to park in nearby public car parks outside of Wynyard and Viaduct Precincts;
 - (iii) The public transport options close to the base will be communicated to guests;
 - (iv) Any Identify any temporary pick-up and drop-off zones in the wider area in consultation with Auckland Transport, and communicate the identified location to guests; on Lower Hobson Street will be communicated to guests; and

(v) ~~Make Inform~~ taxi firms and ~~private hire~~ operators ~~aware there is that~~ no on-site drop-off and pick-up arrangements shall be permitted on Hobson Wharf with the exception of disabled passengers on Hobson Wharf:-

~~(vi)~~(vi) Limit vehicle access to the base on Event Days to essential deliveries necessary to avoid delay in racing and VIP's only. The essential deliveries ~~and the VIP's~~ will be escorted by a nominated person/~~banksman~~, if required:-

~~(vii)~~(vii) Manage entry and exit of servicing and delivery vehicles at vehicle access control points on Eastern Viaduct and Hobson Wharf to ensure safety for all people;

~~(viii)~~(viii) Any vehicle turning areas on the Wharf will be demarcated;

~~(ix)~~(ix) Vehicle speeds on the wharf will be no more than 10km/hour and reinforced with speed humps every 50 m and signage;

~~(x)~~(x) The overall design of the access route will encourage a low speed environment for vehicles.

Advice Note: A key design objective will be to provide the safety of all users with particular regard to pedestrians and people cycling.

Operational Phase On-street Parking Management Plan

179A. In coordination with Auckland Transport, the consent holder shall develop a Parking Management Plan to manage on-street parking adjacent to the sites during all operational phases (i.e. excluding construction and event phases), to ensure that no on-street parking is used by base staff, and that any changes to on-street parking is focused on the provision of short term visitor parking and goods only parking. This on-street Parking Management Plan shall be submitted to the Team Leader Compliance Monitoring – Central for approval, and implemented thereafter.

179B. The geographical area of the On-street Parking Management Plan shall be developed in consultation with Auckland Transport. The monitoring of the use of on street parking by construction staff shall be completed as part of the monitoring and review requirements as to the effectiveness of the Syndicate Staff Travel Plans during the operational phase.

Event Management Plan

180. At least twenty (20) working days prior to the commencement of an Event, an Event Management Plan (EMP) and the plans in Condition 183 shall be prepared in consultation with the Wynyard Quarter Transport Management Association, Auckland Transport and relevant stakeholders identified in Condition 36 in terms of the matters in Conditions 182 and 183, and submitted to the ~~Team Leader – Central Monitoring~~Team Leader Compliance Monitoring - Central for certification ~~in consultation with the Wynyard Quarter Travel Management Association and relevant stakeholders identified in Condition 36 in terms of the matters in Conditions 182 and 183.~~

181. The purpose of an EMP is to provide the overall mitigation of the traffic, pedestrian and cycling movement, parking management, emergency management, noise and lighting related effects of the Event.

Commented [A146]: Blue shaded text proposed by applicant in further information response. Tracked changes are Council's proposed edits.

Commented [A147]: B Coomer-Smit and A Crafer recommend amendments to the conditions relating to management of on-street parking.

Commented [A148]: B Coomer-Smit and A Crafer recommend the following traffic related amendments to the event management plan conditions.

Commented [A149]: Recommended by J Styles.

182. The EMP shall be implemented when an Event is held on Hobson Wharf, Halsey Wharf or Wynyard Point. The EMP shall include the following:

a) No events shall start or finish between 4pm and 6pm during weekdays (except Public Holidays) to avoid and minimise traffic impacts:

a)b) Identify ~~of a~~the range of event modes, which may differ according to location, duration, timing and occupancy;

b)c) Reference and align with the 'Key Principles for Delivering Events' from Auckland Council's Events Policy; and

c)d) Provide details or measures, through the plans identified in Condition 183, including in relation to the following matters:

(i) Marshalling and management of pedestrian, cycle and vehicle access to Hobson Wharf and Halsey Wharf to ensure safety for all people;

(ii) On-site marshalling and management of vehicle access and bays on the Wynyard Point site, implemented also through the *Wynyard Point Servicing, Delivery and Guest Transport Plan*;

(iii) An effective communication strategy to guests attending functions at bases to raise awareness of using active and public modes of transport to and from the events;

(iv) Methods to minimise public access within Wynyard Point and Wynyard wharf (including the breakwater) during events;

~~(iii)~~(v) Effective communication strategy to guests attending functions at bases to raise awareness that no parking will be available in the bases or on the Wharf, restricted parking on local streets, location of drop-off and pick-up locations and existing taxi ranks;

~~(iii)~~(vi) Marshalling and management of vehicle access to Brigham and Hamer Streets, as well as temporary parking restrictions on Hamer and Brigham Streets on racing days during the Event to ensure safety for all people;

~~(iv)~~(vii) ~~Potential m~~Marshalling and management of vehicle access to sections of Jellicoe and Halsey Streets, as well as temporary parking restrictions in this area to ensure safety for all people;

~~(v)~~(viii) Identify public bus service routes and stops ~~in consultation with Auckland Transport~~;

~~(vi)~~(ix) Identify ~~of~~ temporary private bus and coach pick-up / drop-off locations, as well as temporary pick-up / drop-off location/s for taxis and private hire vehicles including ~~a potential~~ temporary pick-up drop-off zones ~~on Lower Hobson Street~~; and

~~(vii)~~(x) Identify potentially management measures, as necessary, to address any impacts on or in the vicinity of the ~~Te Wero Wynyard Crossing~~ bridge to ensure the safety of pedestrians and people cycling, which will be informed by more detailed pedestrian modelling and the Pedestrian and Cyclist Management Plan.

183. The EMP shall incorporate or refer to the following management plans:

a) An **Event Transport Plan (ETP)**, including:

Commented [A150]: Recommended by R Van de Munckhof.

Commented [A151]: Consultation already generally required with AT by condition 180.

(i) A Travel Demand Strategy to discourage driving and this will need to be clearly communicated to the public along with the promotion of sustainable modes of travel; ~~and~~

(ii) Any changes to the SDPsSDGTP for activities during the significant event; and

(iii) Any changes to the SSTP for activities during the event.

b) A Public Transport Management Plan, including:

i. Identifying and delivery of additional services for buses, trains and ferries; and

ii. Identifying and implementation of temporary bus stops.

b)c) A Pedestrian and ~~Cycle-Cyclist~~ Management Plan (PCMP) that shall provide details of:

(i) Access routes for pedestrians and people cycling to and from the Event;

~~(i)~~(ii) The "Last Mile" ~~access routes for pedestrian and cycle access routes~~ people cycling between the public transport facilities and the Event,

~~(ii)~~(iii) Consideration of ~~diversion appropriate~~ routes for pedestrians and ~~cyclists~~ people cycling already travelling through and within Wynyard and Viaduct Harbour Precincts;

~~(iii)~~(iv) Signage and wayfinding;

~~(iv)~~(v) Access control across the wharfs;

~~(v)~~(vi) The location of convenient and secure temporary cycle parking for people attending the Event to encourage cycling; and

~~(vi)~~(vii) A design for the areas to the south and west of Bases C-G that enables safe movement of pedestrians and cyclists through, and within these spaces ~~based on a "share with care" approach.~~

The PCMP shall be informed by further detailed pedestrian modelling.

c)d) A Traffic and Parking Management Plan (TPMP) that shall provide details or measures to manage the circulation of vehicle and parking movements in combination with the Event Transport Plan. The TPMP shall include Site-Specific Traffic Management Plan (SSTMPs), which shall address any temporary parking restrictions and road closures during the Event; and

d)e) An Emergency Management Plan (EmMP) that shall:

(i) Incorporate operational and emergency management plans, including evacuation requirements that are integrated with other local evacuation plans;

(ii) Identify public address and communications plans for the event site;

(iii) Provide signage and wayfinding; ~~and~~

(iv) Establish an operational and emergency control rooms; and

~~(iv)~~(v) Methods and procedures to evacuate the site and surrounding areas in the event of an ammonia release from the nearby Sanford facility or a toxic vapour release from the Stolthaven Wynyard (north) facility.

e)f) A Lighting Management Plan (LMP) that shall include:

(i) A map of surrounding light sensitive areas;

Commented [A152]: The applicant proposed an amended PCMP condition in a further information response (adding, e.g., a reference to cycling). The tracked changes are the Council's proposed edits.

Commented [A153]: The applicant proposed amendments to this condition in a further information response, e.g. to refer to "parking".

Commented [A154]: Recommended by R Van de Munckhof.

- (ii) Design to comply with the E24.6.1 General Standards in the AUP:OP, including rule E24.6.1(6)(b) AUP:OP requirements for pre-curfew and curfew levels for spill light and glare and general lighting planning rules;
- (iii) Design to be in accordance with CPTED principles and consistent with E24.6.1 General Standards in the AUP:OP – Rules as applicable;
- (iv) Layout and luminaire type of temporary lighting;
- (v) Location and orientation of big screens, feature lighting and lighting for hospitality features;
- (vi) Outside broadcast area location; and
- (vii) 10pm shut down time for temporary additional event lighting.

Commented [A155]: Recommended by G Wright.

g) A Noise Event Management Plan (NEMP) that shall:

Commented [A156]: Recommended by J Styles.

- (i) Set out procedures for the calibration of all sound systems prior to each Noise Event to ensure compliance with the noise limits in condition 194 at all times for all Noise Events;
- (ii) Address all requirements of Rule I211.6.1 for Noise Events in the Viaduct Harbour Precinct, and Rule I214.6.4(4) for Noise Events in the Wynyard Precinct (except that the noise limits in those rules shall be replaced with those set out in condition 194);
- (iii) Provide contact details for the person on site responsible for noise management; and
- (iv) Establish procedures for monitoring of noise at the reasonable request of the Council.

Syndicate Staff Travel Plans (SSTPs)

Commented [A157]: B Coomer-Smit and A Crafer recommend amendments to conditions relating to syndicate staff travel plans.

184. At least twenty (20) working days prior to the occupation of each syndicate base, a **Syndicate Staff Travel Plan** for the base activities both prior to and during the Event shall be prepared in consultation with the Wynyard Quarter Transport Management Association, Auckland Transport and other stakeholders identified in condition 36, and be submitted to and certified by the Team Leader Compliance Monitoring - Central Monitoring in consultation with the Wynyard Quarter Travel Management Association.
185. The purpose of the SSTP is to encourage and promote travel by public transport, walking and cycling, and to minimise private vehicle travel associated with base activities.
186. The SSTP shall include:
 - a) For Wynyard Bases – no more than 20 on-site parking shall be provided for staff working at Bases C – G during the operational phase. These onsite parking shall be made available as guests parking during the event phase;
 - b) For VEC ETNZ Base A – no more than 18 on-site parking shall be provided for staff working at the base during the operational and events phases. There shall be no onsite parking for guests at any time;
 - c) For Hobson Wharf Base B – there shall be no onsite parking for staff or guests at any time;

- a)d) Measures to encourage carpooling from team hotels or accommodation;
- b)e) Identification of the locations for allocated parking for high occupancy vehicles ~~(three or more passengers)~~;
- c)f) Provision for secure cycle parking and end of journey facilities;
- d)g) Provision of information regarding ~~the~~ public transport options and walking and cycling routes; and
- e)h) Provision for drop-off and pick-up locations depending on space requirements.

186A. Six (6) months prior to the commencement of an Event, a report evaluating the SSTP shall be prepared and submitted to the Team Leader Compliance Monitoring - Central. The report shall identify:

- a) The number of staff on each site, the measures that have been put in place to facilitate and encourage staff not to drive to and from work;
- b) The outcomes of the implementation of the SSTP including the number of staff travelling on various modes to and from the sites, and the use of on street parking provision by staff;
- c) Any adverse safety and operational effects resulting from staff travel to and from the sites.

186B. Should the report identify adverse effects from staff travel on the transport network, the Consent Holder shall promptly prepare and submit an amendment to the SSTP for certification by the Team Leader Compliance Monitoring – Central that will actively discourage driving to and from work;

186C. An additional SSTP evaluation report may be required by the Team Leader Compliance Monitoring – Central on reasonable notice during any Event. Any further evaluation report required shall be prepared and submitted to the Team Leader Compliance Monitoring - Central in accordance with the requirements of conditions 186A and 186B above.

Wynyard Point Traffic Measures

- 187. The Northern Connector Road (with footpath) shall be implemented to provide a diversion route as a result of the stopping of Brigham Street to enable Bases C to G, as well as pedestrian access to Wynyard Wharf breakwater. This shall include the provision of appropriate signage to prohibit parking and ensure clear access for Fire and Emergency New Zealand.
- 188. Clear signage shall be provided at the access to each of the five Wynyard Point bases to enable easy legibility of the access strategy.
- 189. A footpath shall be provided on the eastern side of Hamer Street for the full length of Bases C-G, to be agreed with Auckland Transport based on further consultation. The footpath shall serve the Wynyard Point America's Cup syndicate ~~B~~bases C to G and be coordinated with any provision made for footpaths on the western side of Hamer Street.

VEC Syndicate Base Traffic Management Plan

- 190. At least 20 working days prior to the commencement of use of the syndicate base on Hobson Wharf a **VEC Syndicate Base Traffic Management Plan** (VEC SB TMP) shall be

submitted to the ~~Team Leader – Central Monitoring~~ Team Leader Compliance Monitoring - Central for certification in terms of the matters in Condition 191.

191. The purpose of the VEC SB TMP shall be to address the matters in the current TMP as applicable to the use of the building and yard on Halsey Wharf as a syndicate base. The VEC SB TMP will include:

f)d) Managed entry and exit of servicing and delivery vehicles at vehicle access control point on the western edge of Halsey Wharf

g)e) Any vehicle turning areas on the Wharf will be demarcated

h)f) Vehicle speeds on the wharf will be no more than 10km/hour and reinforced with signage

i)g) The overall design of the access route will encourage a low speed environment for vehicles.

j)h) No ~~regular~~ vehicle entry/exit from the eastern edge of ~~Halsey~~ Halsey Wharf via Karanga Plaza except for emergency vehicles.

Advice Note: A key design objective will be to provide the safety of all users with particular regard to pedestrians and ~~cyclists~~ people cycling.

VEC Syndicate Base Marine & Fishing Industry Management Plan

192. At least 20 working days prior to the commencement of use of the syndicate base on ~~Hobson-Halsey~~ Wharf a **VEC Syndicate Base Marine & Fishing Industry Management Plan** (VEC SB MFIMP) shall be submitted to the ~~Team Leader – Central Monitoring~~ Team Leader Compliance Monitoring - Central for certification in terms of the matters in Condition 193.

193. ~~The purpose of the VEC SB MFIMP shall be to address the matters in the current MFIMP as applicable to the use of the building and yard on Halsey Wharf as a syndicate base. The purpose of the VEC SB MFIMP shall address the matters in the current MFIMP as applicable and reflecting the use of the building and yard on Halsey Wharf as a syndicate base for ETNZ. The Plan shall address the efficient and safe accesses for vehicles, pedestrians and people on cycles during the operational phase.~~

Operational Noise

194. ~~The noise from all~~ Noise ~~E~~vents (excluding crowd noise) undertaken outside a building shall comply with the requirements of Auckland Unitary Plan - Operative in Part (AUP OIP) Standards I214.6.4 (4) and I211.6.1, except that the noise limits in Standards I214.6.4 (4) (a) and I211.6.1 (a) (ii) shall be replaced with the following:

a) High ~~n~~oise ~~e~~vents: 82 dB L_{Aeq} and 90 dB L_{A01}

b) Medium ~~n~~oise ~~e~~vents: 72 dB L_{Aeq} and 80 dB L_{A01}

194A. Where a Noise Event is undertaken inside a building, the following noise limits shall apply in addition to those specified in Condition 194:

(a) 76dB L_{eq} at 63Hz 1/1 Octave Band;

Commented [A158]: The applicant added more detail in this condition in a further information response (the text starting "The VEC SB TMP will include:" onwards). The tracked changes are the Council's suggestions.

Commented [A159]: The following amendments / new conditions relating to operational noise are recommended by J Styles.

(b) 76dB L_{eq} at 125Hz 1/1 Octave Band.

194B. The noise limits applying to all Noise Events must be complied with when measured and assessed as the incident level, 1m from the facade of any building not authorised by this consent that is occupied during the event.

194C. The cumulative noise from all activities associated with this consent including all Operations except for Noise Events and construction works, shall comply with:

- (a) Parts (2) and (5) of Rule 1214.6.4 for activities on land in the Wynyard Precinct;
- (b) Rule E25.6.8 for activities on land in the Business – City Centre Zone (includes the Viaduct Harbour Precinct);
- (c) Rule E25.6.22 for all activities in the CMA, where the noise limits of the receiving zone shall apply to all receivers on land on the south side of the Waitemata Harbour;
- (d) Rule E25.6.14 for all activities in the CMA where the noise is received on any site in a residential zone on the northern side of the Waitemata Harbour; and
- (e) The following noise limits for any activity in the CMA where the noise is measured and assessed as the incident level 1m from the facade of any space in the CMA occupied for residential purposes:

<u>7am to 11pm</u>	<u>60dB L_{Aeq}</u>
<u>11pm to 7am</u>	<u>55dB L_{Aeq}</u>
<u>_____</u>	<u>65dB at 63Hz L_{eq} 1/1 Octave Band</u>
<u>_____</u>	<u>60dB at 125Hz L_{eq} 1/1 Octave Band</u>
<u>_____</u>	<u>75dB L_{Amax}</u>

- (f) The following noise limits for any activity in the CMA where the noise is measured and assessed as the incident level 1m from the facade of any occupied space in the CMA not covered by Condition 194C(e) and not authorised by this consent:

<u>7am to 11pm</u>	<u>60dB L_{Aeq}</u>
<u>11pm to 7am</u>	<u>60dB L_{Aeq} and 75dB L_{Amax}</u>

194D. Prior to the use of any distributed loudspeaker system designed for playing commentaries, interviews, promotional material or any other amplified sound to the public, the consent holder shall provide a report from a suitably qualified acoustics expert setting out sufficient detail to demonstrate that the speaker system(s) have been calibrated by noise measurements in accordance with NZS6801:2008 *Acoustics – Measurement of environmental sound* to ensure that the cumulative noise level from the operation of the speakers and all other Operations (excluding crowd noise) will be compliant with the noise limits in condition 194C at all times. The speakers may not be used for any purpose other than the calibration until the report is certified by the Council.

Public Access

195. In the event that Bases C-G (inclusive) are vacant during the ten year consent period, public pedestrian and cycle access to a minimum width of 20m shall be provided along the eastern edge of the bases, adjacent to the coast.

196. Public access shall be maintained along the western side of Halsey Wharf at all times.

197. Public access shall be maintained to the upper level viewing deck of the Viaduct Events Centre at all times.

198. Wharf extensions (Hobson and Wynyard) shall not be used for public car parking.

Temporary Relocation of Fishing Industry During Events

199. At least six months prior to the commencement of any Event, a Fishing Industry Relocation Management Plan (FIRMP) shall be submitted to the Team Leader Compliance Monitoring - Central for approval.

200. The purpose of the FIRMP shall be to outline the procedures that have been developed in consultation with the fishing industry (including Sanford Limited and Auckland Fishing Port Limited) and the Harbourmaster for the temporary relocation of fishing industry activities / vessels during event periods. Current fishing industry activities are only to be relocated on a temporary basis during Events. Before and after any Events, fishing industry activities will remain in their current locations.

201. The consent holder shall implement any approved FIRMP.

Illuminated Signage

202. The following requirements shall apply to any signage involving internally illuminated signs, LED digital signs, light projection and light effects (in addition to any other requirements in the conditions of this consent):

- a) A lighting design shall be submitted to the Team Leader Compliance Monitoring – Central for approval, and implemented as approved; and
- a) The lighting design shall be accompanied by a lighting assessment by a suitably qualified lighting specialist.

BAU Lighting

203. 'Business as usual' lighting (i.e. other than construction or event lighting) shall comply with the following requirements:

- a) Exterior lighting on new bases shall be zero tilt luminaires with no light projected above the horizontal;
- b) Pole mounted lighting is to have zero tilt luminaires with no light projected above the horizontal;
- c) Design of lighting is to be in accordance with CPTED principles; and
- d) Lighting must comply with the E24.6.1 General Standards in the AUP:OP, including rule E24.6.1(6)(b).

Commented [A160]: The following conditions relating to public access are recommended by R Skidmore.

Commented [A161]: I understand that discussions with the fishing industry may be ongoing, however I recommend that a formal process be put in place to manage the temporary relocation of the industry during events.

Commented [A162]: Recommended by G Wright.

Commented [A163]: Recommended by G Wright.

ANNEXURE

Drawings and Documents (refer to condition 13)

<u>Plan title and reference</u>	<u>Author</u>	<u>Rev</u>	<u>Dated</u>
Engineering Plans			
<u>Drawing No. 3233847-CA-4001; 'General Civil Drawing 1- Overall Existing Layout Plan'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4002; 'General Civil Drawing 2- Overall Development Layout Plan'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4003; 'General Civil Drawing 3- Existing Occupation Consents Plan'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4004; 'General Civil Drawing 4- Proposed Occupation Consents Plan'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4101; 'Marine Works Civil Drawing 1- Overall General Arrangement Layout Plan'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4102; 'Marine Works Civil Drawing 2- Halsey Wharf Breakwater – General Arrangement'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4103; 'Marine Works Civil Drawing 3- Halsey Wharf Breakwater-Typical Sections'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4104; 'Marine Works Civil Drawing 4- Hobson Wharf Extension- General Arrangement'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>

<u>Plan title and reference</u>	<u>Author</u>	<u>Rev</u>	<u>Dated</u>
<u>Drawing No. 3233847-CA-4105; 'Marine Works Civil Drawing 5- Hobson Wharf Extension- Typical Sections'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4106; 'Marine Works Civil Drawing 6- Wynyard Wharf South Extension- General Arrangement'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4107; 'Marine Works Civil Drawing 7- Wynyard South Extension- Typical Sections'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4108; 'Marine Works Civil Drawing 8- Dredge Plan'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4109; 'Marine Works Civil Drawing 9- Wave Panel Arrangement'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4110; 'Marine Works Civil Drawing 10- Bathymetry Plan'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4111; 'Marine Works Civil Drawing 11- Hobson Wharf Wave Panels- Typical Sections'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4201; 'Wynyard Point Works Civil Drawing 1- General Arrangement Plan'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>

<u>Plan title and reference</u>	<u>Author</u>	<u>Rev</u>	<u>Dated</u>
<u>Drawing No. 3233847-CA-4202; 'Wynyard Point Works Civil Drawing 2- Proposed Contour Plan'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4203; 'Wynyard Point Works Civil Drawing 3- Typical Sections'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4204; 'Wynyard Point Works Civil Drawing 4- Stormwater Plan'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4205; 'Wynyard Point Works Civil Drawing 5- Indicative Pavement Cut and Fill Plan'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4206; 'Wynyard Point Works Civil Drawing 6- Earthworks Layout Plan'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CA-4207; 'Wynyard Point Civil Works Drawing 7- Indicative Extent of Ground Improvement'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CU-4401; 'Existing Services Drawing 1- Services Key Plan'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CU-4402; 'Existing Services Drawing 2- Services Plan Sheet 1 of 6'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>

<u>Plan title and reference</u>	<u>Author</u>	<u>Rev</u>	<u>Dated</u>
<u>Drawing No. 3233847-CU-4403; 'Existing Services Drawing 3- Services Plan Sheet 2 of 6'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CU-4404; 'Existing Services Drawing 4- Services Plan Sheet 3 of 6'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CU-4405; 'Existing Services Drawing 5- Services Plan Sheet 4 of 6'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CU-4406; 'Existing Services Drawing 6- Services Plan Sheet 5 of 6'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CU-4407; 'Existing Services Drawing 7- Services Plan Sheet 6 of 6'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CU-4451; 'Proposed Services Drawing 1- Services Key Plan'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CU-4452; 'Proposed Services Drawing 2- Services Plan Sheet 1 of 6'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CU-4453; 'Proposed Services Drawing 3- Services Plan Sheet 2 of 6'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CU-4454; 'Proposed Services Drawing 4- Services Plan Sheet 3 of 6'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>

<u>Plan title and reference</u>	<u>Author</u>	<u>Rev</u>	<u>Dated</u>
<u>Drawing No. 3233847-CU-4455; 'Proposed Services Drawing 5- Services Plan Sheet 4 of 6'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CU-4456; 'Proposed Services Drawing 6- Services Plan Sheet 5 of 6'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-CU-4457; 'Proposed Services Drawing 7- Services Plan Sheet 6 out of 6'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-GE-4501; 'Geotechnical Drawing 1- Rock Contour Plan'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-GE-4502; 'Geotechnical Drawing 2- Cross Sections Sheet 1 of 5'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-GE-4503; 'Geotechnical Drawing 3- Cross Sections Sheet 2 of 5'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-GE-4504; 'Geotechnical Drawing 4- Cross Sections Sheet 3 of 5'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-GE-4505; 'Geotechnical Drawing 5- Cross Sections Sheet 4 of 5'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. 3233847-GE-4506; 'Geotechnical Drawing 6- Cross Sections Sheet 5 of 5'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>

<u>Plan title and reference</u>	<u>Author</u>	<u>Rev</u>	<u>Dated</u>
<u>Drawing 3233847-FE-4601; 'Fire Safety Drawing 1 FENZ Access and Facilities'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing 3233847-FE-4602; 'Fire Safety Drawing 2 Provisions for Egress'</u>	<u>Beca</u>	<u>TBC</u>	<u>TBC</u>
<u>Urban Design Figures</u>			
<u>Figure 20: 'Water Use – Event Mode'</u>	<u>McIndoeUrban/ Boffa Miskell</u>	<u>TBC</u>	<u>TBC</u>
<u>Architectural Plans</u>			
<u>Drawing No. A1-01; 'Overall Masterplan Wynyard Hobson Bases'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A1-13; 'Team Base A- Viaduct Event Centre Proposed Indicative Floor Layout- L1'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A1-14; 'Team Base A- Viaduct Event Centre Proposed Indicative Floor Layout- L2'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A1-15; 'Team Base A- Viaduct Event Centre Proposed Indicative Floor Layout- L3'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A2-10; 'Exterior Elevations- Team Base A North & East'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A2-11; 'Exterior Elevations- Team Base A South & West'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A1-20; 'Team Base B- Hobson Wharf Indicative Floor Layout- L1'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>

<u>Plan title and reference</u>	<u>Author</u>	<u>Rev</u>	<u>Dated</u>
<u>Drawing No. A1-21: 'Team Base B- Hobson Wharf Indicative Floor Layout- L2'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A1-22: 'Team Base B- Hobson Wharf Indicative Floor Layout- L3'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A3-20: 'Team Base B- Indicative Building Section'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A2-20: 'Exterior Elevations- Team Base B North & East'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A2-21: 'Exterior Elevations- Team Base B South & West'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A1-30: 'Team Base C,D (Similar) Indicative Floor Layout- L1'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A1-31: 'Team Base C,D (Similar) Indicative Floor Layout- L2'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A1-32: 'Team Base C,D (Similar) Indicative Floor Layout- L3'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A3-30: 'Team Base C,D (Similar) Indicative Building Section'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A2-30: 'Exterior Elevations - Team Base C & D North & East'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A2-31: 'Exterior Elevations - Team Base C & D South & West'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>

<u>Plan title and reference</u>	<u>Author</u>	<u>Rev</u>	<u>Dated</u>
<u>Drawing No. A1-40: 'Team Base E,F (Similar) Indicative Floor Layout - L1'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A1-41: 'Team Base E,F (Similar) Indicative Floor Layout - L2'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A1-42: 'Team Base E,F (Similar) Indicative Floor Layout - L3'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A3-40: 'Team Base E,F (Similar) Indicative Building Section'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A2-40: 'Exterior Elevations - Team Base E & F North & East'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A2-41: 'Exterior Elevations - Team Base E & F South and West'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A1-50: 'Team Base G Indicative Floor Layout - L1'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A1-51: 'Team Base G Indicative Floor Layout - L2'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A1-52: 'Team Base G Indicative Floor Layout- L3'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A3-50: 'Team Base G Indicative Building Section'</u>	<u>Moller Architects</u>	<u>TBC</u>	<u>TBC</u>

<u>Plan title and reference</u>	<u>Author</u>	<u>Rev</u>	<u>Dated</u>
<u>Drawing No. A2-50:</u> <u>'Exterior Elevations- Team</u> <u>Base G North & East'</u>	<u>Moller</u> <u>Architects</u>	<u>TBC</u>	<u>TBC</u>
<u>Drawing No. A2-51:</u> <u>'Exterior Elevations- Team</u> <u>Base G South & West'</u>	<u>Moller</u> <u>Architects</u>	<u>TBC</u>	<u>TBC</u>

<u>Document Number</u>	<u>Title</u>	<u>Author</u>	<u>Date</u>
<u>2</u>	<u>Locality Plan: America's Cup</u> <u>Wynyard Hobson</u>	<u>UNIO Environmental</u>	
<u>4</u>	<u>Assessment of Environmental</u> <u>Effects</u>	<u>UNIO Environmental</u>	<u>13 April 2018</u>
<u>6</u>	<u>New Zealand Coastal Policy</u> <u>Statement Assessment</u>	<u>UNIO Environmental</u>	
<u>9</u>	<u>Physical Infrastructure Technical</u> <u>Report for Resource Consent</u> <u>Application, Wynyard Hobson</u>	<u>Beca Ltd</u>	<u>April 2018</u>
<u>10</u>	<u>Architect's Design Statement</u>	<u>Moller Architects Ltd</u>	<u>12 April 2018</u>
<u>11</u>	<u>Landscape and Visual Effects</u> <u>Assessment</u>	<u>Boffa Miskell Ltd</u>	<u>12 April 2018</u>
<u>12</u>	<u>Urban Design Report</u>	<u>McIndoe Urban</u>	<u>12 April 2018</u>
<u>13</u>	<u>Building and Public Space Design</u> <u>Guidelines</u>	<u>McIndoe Urban,</u> <u>UNIO Environmental</u> <u>and Boffa Miskell Ltd</u>	<u>10 April 2018</u>
<u>14</u>	<u>Quantitative Risk Assessment</u>	<u>Sherpa Consulting</u> <u>Pty Ltd</u>	<u>6 April 2018</u>
<u>15</u>	<u>Impact Assessment Hazardous</u> <u>Substances Regulations</u>	<u>4SIGHT Consulting</u>	<u>April 2018</u>
<u>16a</u>	<u>Coastal Processes and Dredging</u> <u>Technical Report, Appendix A</u> <u>Sedimentation Analysis and</u>	<u>Beca Ltd and Tonkin</u> <u>+ Taylor Ltd</u>	<u>April 2018</u>

	<u>Appendix B Hydraulic Modelling Report</u>		
<u>16b</u>	<u>Appendix C Tonkin Taylor Hydraulic Modelling Report</u>	<u>Tonkin + Taylor Ltd</u>	<u>April 2018</u>
<u>16c</u>	<u>Appendix D Wake and Wave Reports prepared by Cardno</u>	<u>Beca Ltd (Cardno)</u>	<u>10 April 2018</u>
<u>16d</u>	<u>Continuation of Appendix D, Appendix E Wave Tranquillity Performance Criteria, Appendix F Wave Reflection and Transmission Coefficients, Appendix G Sediment Plume and Fate Analysis</u>	<u>Beca Ltd (Cardno, Tonkin + Taylor Ltd)</u>	<u>Appendix D – 10 April 2018</u> <u>Appendix E – 20 November 2017</u> <u>Appendices F and G - 12 January 2018</u>
<u>17</u>	<u>Assessment of Coastal Environmental Effects Associated with the Development of America's Cup Facilities for the Wynyard Hobson Option</u>	<u>Golder Associates</u>	<u>April 2018</u>
<u>18</u>	<u>Arborcultural Assessment Report</u>	<u>Arbor Connect Ltd</u>	<u>12 April 2018</u>
<u>19</u>	<u>Navigational Safety and Utility</u>	<u>Navigatus Consulting</u>	<u>12 April 2018</u>
<u>20</u>	<u>Marine Traffic Survey</u>	<u>Beca Ltd</u>	<u>April 2018</u>
<u>21a</u>	<u>Traffic and Transport Technical Report</u>	<u>Beca Ltd</u>	<u>April 2018</u>
<u>21b</u>	<u>Appendices A to F of Traffic and Transport Technical Report</u>	<u>Beca Ltd</u>	<u>April 2018</u>
<u>22</u>	<u>Construction Noise and Vibration Assessment</u>	<u>Marshall Day Acoustics</u>	<u>12 April 2018</u>
<u>23</u>	<u>Draft Construction Noise and Vibration Management Plan</u>	<u>Marshall Day Acoustics</u>	<u>12 April 2018</u>

<u>24</u>	<u>Events Noise Assessment</u>	<u>Marshall Day Acoustics</u>	<u>12 April 2018</u>
<u>25</u>	<u>Geotechnical Report</u>	<u>Beca Ltd</u>	<u>April 2018</u>
<u>26</u>	<u>Groundwater Technical Report</u>	<u>Beca Ltd</u>	<u>April 2018</u>
<u>27</u>	<u>Preliminary Site Investigation (Contamination)</u>	<u>Beca Ltd</u>	<u>April 2018</u>
<u>28</u>	<u>Stormwater and Services Technical Report</u>	<u>Beca Ltd</u>	<u>April 2018</u>
<u>29</u>	<u>Fire and Evacuation Assessment</u>	<u>Beca Ltd</u>	<u>April 2018</u>

Further information responses (s92)

Author

Date

<u>Letter regarding proposed groundwater conditions, Stormwater/ITAs, Transport and enclosing substitute version of Document 5 Options Report</u>	<u>UNIO Environmental</u>	<u>19 April 2018</u>
<u>Letter regarding Transport, Stormwater/ITAs, Lighting, Heritage, Air Discharge and General matters</u>	<u>UNIO Environmental</u>	<u>8 May 2018</u>
<u>Email providing revised proposed groundwater conditions</u>	<u>Karl Cook of UNIO Environmental</u>	<u>16 May 2018</u>
<u>Letter regarding traffic issues and providing revised proposed conditions amended in accordance with responses</u>	<u>UNIO Environmental</u>	<u>8 June 2018</u>
<u>Letter regarding typographical errors, underwater noise, marine mammals present and potential effects on marine mammals</u>	<u>UNIO Environmental, Marshall Day Acoustics Ltd and Kennedy Environmental</u>	<u>14 June 2018</u>
<u>Email providing draft Hobson Wharf activation condition</u>	<u>Vijay Lala, UNIO Environmental</u>	<u>19 June 2018</u>