

Transport Response to Section 92 Further Request Bayswater Marina

PREPARED FOR BAYSWATER MARINA HOLDINGS LIMITED | AUGUST 2021



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1 Transport Response to Section 92 Request

Following submission of the resource consent application (BUN60373319 dated 15 April 2021) by Bayswater Marina Holdings Limited (“**BMHL**”) for the above development, Auckland Council has issued an additional request for further information under Section 92 of the Resource Management Act 1991 (“**further s92 request**”).

The following responses address the transport-related matters within the further s92 request. These queries are cited in italics for ease of reference and responded to below.

1.1 Item 16: Accessible Parking Spaces

“Previous Request:

Please clarify how many accessible parking spaces will be provided and where these will be located.

Council Review:

Stantec have provided for two mobility parks based on 32 visitor parks at the marina. Please clarify how berth holders will access a mobility park if required i.e. should a proportion of the berth holder car parks be allocated as mobility parks?”

Response:

There are 285 berth holder spaces provided. A total number of seven accessible spaces are required. The allocation of berth-holder parking is provided in the response from the Applicant.

1.2 Item 17: Parking Spaces within the Apartment Buildings

“Previous Request:

Some of the parking spaces on level B01 of the apartment blocks look like they may have constrained manoeuvring area. Please show vehicle tracking for an 85th percentile car to demonstrate that the parking spaces work.

Council Review:

Stantec provided vehicle tracking for the car parks in the apartment buildings. The vehicle tracking looks tight, irregular (wheels need to come to a complete stop to fulfil a manoeuvre) and in some cases track over other parking spaces or ramps. Stantec’s response acknowledged the constraints in the tracking and stated that turntables will be provided. Please provide details of the turntables and revise the tracking accordingly.”

Turntables of 4.8m in diameter (or similar) will be provided as required. Typical specifications for such a turntable are attached as **Appendix A**. It is noted that the detailed design of the required turntables will be explored during subsequent detailed design stages, where the exact position (in terms of structural integrity) will be reviewed and confirmed.

An updated vehicle tracking assessment (inclusive of the provision of turntables) is provided in **Appendix B**.

As can be seen, with the provision of turntables, vehicles can access to the more constrained parking spaces is greatly improved. As noted, the exact positions and design of these turntables will be provided during detailed design stage.

It is also noted that all car parking spaces can be accessed by a three-point turn entry / exit as it is classified as user class 1A in the *AS/NZS 2890.1:2004 Parking Facilities – Off-street car parking* Standards, being for regular residential users who will be familiar with and assigned to specific parking locations.

1.3 Item 18: Access, gradient and vertical clearance for the Apartment Buildings

“Previous Request:

Please provide more information on the access to the apartment buildings including, location, width, vertical clearance and ramp gradients.

Council Review:

Please provide more information on the access to the apartment buildings including, location, width, vertical clearance and ramp gradients.

- i. *The Long section for the north apartment ramp provided on Drawing 320 does not appear correct, with the basement ramp not starting from the ground level. Please clarify or correct.*
- ii. *Stantec's response indicates that the access ramps for the apartment buildings are 3.4m wide, however the drawings for the Central Apartment building shows a 3.1m wide access ramp. This is considered too narrow for a ramp with walls on either side of the ramp. Please widen this ramp to a minimum of 3.4m.*
- iii. *The entry to the Northern Apartment building appears to be at a challenging angle. Please provide vehicle tracking showing an 85th percentile vehicle entering and exiting the access. The tracking should include a vehicle entering from the direction of the one-way system in the residential precinct."*

Response

Appendix C (attached) shows the latest vehicle ramp sections. Additionally, it is noted:

- i. Refer to the PBA resource consent drawing set that accompanied the application. The level difference is due to the proposed external car parking level being slightly below the ground level of the apartments. The basement parking ramp simply ties into this level.
- ii. Sheet 4 of 6 in Appendix B provides a tracking assessment for this narrow section of the vehicle ramp. The assessment shows that the 3.1m ramp can be accessed sufficiently, however, the outbound movement will have limited vehicle clearances (indicated in the red clouds). It is recommended that subtle design changes can be made during the subsequent detailed design stage to accommodate this outbound movement in a safe and effective manner to address the Council/AT concerns.
- iii. Sheet 3 of 6 in Appendix B provides a tracking assessment of the inbound and outbound movement of this ramp. The tracking confirms that the northern apartment basement can be access safely and conveniently.

1.4 Item 20: Road Layout

"Previous Request:

Please provide a visibility assessment for vehicles travelling around the bend of Sir Peter Blake Parade and Cross Street. The vehicle tracking shows the rubbish truck has to cross the centreline on the bend. Please demonstrate on a plan that adequate sight lines are available to ensure oncoming traffic will have adequate space to stop to prevent either vehicle having to reverse within the roadway."

Council Review:

The bend in the road at the intersection of Cross St and Sir Peter Blake Parade is not considered acceptable in its current design for the reasons given below. Please reconsider the design given the location of the bus turning area and the boat ramp. Suggest a roundabout may be an option with the bus access forming a leg of the roundabout. Use of the boat ramp will need to be designed into the intersection.

The truncated snip of the tracking plan provided shows the truck's swept path crossing the centreline after the bend which provides a major safety issue for a vehicle travelling southbound around the bend. Although the plan shows there is adequate visibility along Sir Peter Blake Parade, a southbound vehicle entering the bend will be at risk of a collision. In addition to this, the tracking provided for the southbound vehicle does not imitate usual driving behaviour.

The s92 response has provided new information on the location of the bus access, where buses are expected to exit the ferry terminal area at the southern end of Sir Peter Blake Parade. It is proposed that buses turn right out of the ferry terminal area on a tight bend in the road where visibility will be restricted.

We have concerns on how vehicles with a trailer will safely manoeuvre onto the boat ramp, given its location on a tight bend in the road with restricted visibility.

The restricted visibility that comes with the current design does not lend itself to an important intersection that has to cater for heavy vehicles, bus turning area and vehicles and trailers negotiating the boat ramp.”

Response

It is understood that BMHL is not required by the Bayswater Precinct Provisions to provide specific bus turning facilities¹ within its land and development within sub-precincts A and B.

As noted in the letter provided by Kitt Littlejohn Barrister (**legal opinion**) supporting this s92 response, Stantec understands that there is no obligation to incorporate public transport elements (such as bus routes and/or ferry facilities) within its proposed development of the Bayswater Marina. The public transport outcomes sought by the Council and Auckland Transport as part of the BMHL land are therefore beyond the specific requirements and expectations of the Bayswater Marina Precinct provisions.

The legal opinion to the further s92 response will address this matter further.

In addition to the legal opinion, the following points are noted from a transportation perspective (noting that there is no specific requirement to do so):

- Should BMHL seek to contribute to the overall public transport and boat launching/ramp outcomes for the Precinct by way of additional facilities, a significant area would be required to accommodate the full turning head (and the full spatial needs of the u-turn of the AT Metro buses) in this area (Sir Peter Blake Parade and Cross Street meets). Such a full facility for public transport movements would also create a series of consequential negative impacts for through traffic associated with the wider BMHL development as no proper traffic control mechanism can be provided and due to its size, will significantly affect the footpaths, landscaping areas, as well as the north-south pedestrian desire line connection that is also of wider concern to Council/Auckland Transport.
- It is also noted that such a solution (full turn head) will not solve the concerns in terms of the boat ramp (and vehicles reversing) as also raised by Council/AT. In fact, it creates a wider manoeuvring area which may create further adverse effects on pedestrian safety.
- A roundabout concept as suggested by Council/AT has been considered in preliminary detail, however it has been assessed as providing limited separation between movements and some conflict would still occur at the roundabout point (especially during reversing manoeuvres associated with the boat ramp). Therefore, it has been considered as not accommodating pedestrians in any better way to the current proposal, and is considered to be a somewhat excessive solution for the purpose of serving the boat ramp only. Due to the position of the boat ramp, it is also noted that the AT bus will still be required to turn right out of the AT site.

It is further noted that the safety concern in terms of the bend in Sir Peter Blake Parade will be addressed in subsequent detailed design processes.

Appendix D provides a conceptual solution which creates sufficient separation between movements via a proposed flush median along the centreline of the curve extending from Sir Peter Blake Parade Extension into Cross Street. The flush median provides additional manoeuvring area for reversing vehicles associated with the boat launching ramp, and separates the directions of travel through this area. This would also assist with the facilitation of the AT bus turning right out of the AT site.

Raised zebra crossings are also proposed on either side of the boat ramp access.

It is considered sufficient and safe for pedestrians (being raised crossings) and separates pedestrians completely from the reversing manoeuvres associated with the boat ramp.

Appendix D is considered conceptual and subject to further refinement. A detailed design of this layout can be provided at detailed design stage.

1.5 Item 21: Traffic Calming

“Previous Request:

The internal road network should have a design speed of 30km/h to ensure a safe environment for pedestrians and cyclists. Please show traffic calming measures to ensure traffic speeds will be reduced to 30km/h.”

Council Review:

¹ Refers to a facility that provides space for an AT Metro bus to make a full turnaround manoeuvre without reversing

Stantec has recommended two zebra crossings and three sets of traffic calming. Please show the following on a plan:

- The location of the pedestrian crossings and the required visibility assessments for a pedestrian crossing. It is also recommended that the pedestrian crossings are raised platforms to ensure slower speeds. The raised platforms could be designed as Swedish tables where the crossing is on a bus route i.e. Sir Peter Blake Parade.
- The type and location of the traffic calming measures should also be shown on a plan.”

Response:

The detailed design of traffic calming measures will be considered at detail design stage.

The location of the traffic calming measures is indicated in Appendices D and F.

1.6 Item 23: Provision for Pedestrians and Cyclists

“Previous Request:

The Precinct Plan states the requirement for “public vehicle, pedestrian and cycling routes within the precinct to allow easy access to the coastal margins and parking facilities.” Please demonstrate how the development is providing for cycle access and public/ berth holders bike facilities through the site.”

Council Review:

The Precinct Plan states the requirement for “public vehicle, pedestrian and cycling routes within the precinct to allow easy access to the coastal margins and parking facilities.” Please demonstrate how the development is providing for cycle access through the site.”

Response:

Cyclists will share the roadway with the general traffic at a low-speed, shared traffic environment as indicated by the brown dotted line in the Boffa Cycle Strategy Plan. This represents the cycle circulation route through the wider development as well as where bike parking facilities will be provided. As such there are no dedicated internal cycle lanes (as would be expected of other forms of development of say a precinct major through-traffic routes). The low-speed traffic environment of the BMHL development having effectively no through-traffic or cycle movement component means that cyclists can safely share the carriageways with other road users within the precinct in a safe and convenient manner).

The provision for pedestrians and cyclist meets the Unitary Plan objectives.

1.7 Item 26: Trip Generation, Modelling and Modal Split

“Previous Request:

The existing level of service for the intersection of Bayswater Avenue & Lake Road appears to be flowing quite freely during the AM /PM weekday peak periods.

- Please clarify how the assumption /assessment that the intersection of Bayswater Avenue & Lake Road has a Level of Service of B and C during the AM /PM weekday peak periods was determined.
- Please provide confirmation that the modelling reflects the current level of service through the intersection by completing trip /queue surveys.
- We believe that the Level of Service is underestimated in the modelling and it is important the modelling accurately reflects the existing level of service of the intersection prior to the effects of the additional trip generation arising from the proposal being considered and assessed.
- Please comment or provide further assessment of the use of the streets surrounding the Bayswater Avenue /Lake Road intersection as ‘traffic rat-runs’ particularly to the north - west of the intersection and the effect that this may be having on the current Level of Service of the intersection and whether it may get worse due to increased vehicle trips generated by the development.

Note: This is a similar query to that raised by Council’s Transport Specialist under item 14 above.

Council Review:

We have reviewed the analysis of the trip generation and modelling and the response does not adequately address /clarify the points raised as part of the s92.

- *The use of google maps layers is unconventional and is not accepted as a standard technique to calibrate modelling and may not accurately show the Level of Service for the intersection of Bayswater Avenue & Lake Road with the development.*
- *Please verify using traffic counts or on-site observation to calibrate the model to show both the current level of service and proposed level of service through the intersection.*
- *The SIRDA shows a cycle time of 120s. Please clarify if this is the current cycle time being used at the intersection and if not please adjust the model for a maximum of 120s cycle time.*
- *It is not clear how the additional traffic resulting from the development will not result in rat-running especially through Egremont Street. Please clarify how this assumption was determined."*

Response:

Stantec is currently in discussion with Kate Brill (the Council's consultant transport adviser). These matters will be addressed in due course once the Covid Level-4 lockdown situation allows further traffic and queuing surveys to be undertaken and further traffic modelling analyses to be completed.

1.8 Item 27: Rubbish Collection

"Previous Request:

It is not clear from the plan or the transportation assessment what the arrangement will be for rubbish collection.

Please clarify /detail what the arrangements will be for the rubbish collection, including whether the collection will be private, the frequency of collection and whether there will be a central point for collection (rubbish /recycling) for the proposed residential dwellings.

Please provide plans that show the location of the bins and please provide tracking diagrams confirming that a 10.3m rubbish truck can safely enter /leave the site and track through the site (including the residential precincts).

Note: This is a similar query to that raised by Council's Transport Specialist under item 19 above.

Council Review:

The manoeuvring for an 8.3m rubbish truck is very tight, particularly if the parking bays are occupied. The proposed time restrictions on the parking bays and removal of the wheel stops from the parking spaces where the rubbish truck would manoeuvre over is not considered to be a suitable solution.

We don't support this and would prefer that the two parking bays were removed (traffic flow would need to be signed and marked as one way). This measure /suggestion should be discussed with Abley AC's Traffic Consultant."

Response:

It is accepted that the vehicle tracking for the waste removal for the site is has limited maneuverability; but is nonetheless workable and considered acceptable for this situation. Further refinement of the vehicle tracking will be provided in subsequent detailed design phases of the project in advance of the hearing. It is however concluded that there are suitable design responses to this minor concern. There are no significant transportation effects arising from this concern.

It is undesirable for any residential parking spaces to be removed at resource consent stage. The parking provisions are further discussed under Section 1.9 Item 28 below.

1.9 Item 28: Bus Stop and Bus Turning Area and Walking Route

"Previous Request:

The section 5.4 of the Assessment of Effects notes that bus access will continue to be available along Sir Peter Blake Parade and that it will finish at its current location and a turnaround area will be available however; there are no plans showing this location or turnaround. Please provide plans /amended information that shows the following:

- The proposed route of the bus along Sir Peter Blake Parade and within the site and the location of the bus stop and details of the bus turning area.
- The route of the bus and the bus turning area will need to include details of tracking for a 12.6m rigid and a 13.5m rear-steer bus and the route and bus turning area will need to avoid /minimise any conflicts with the boat ramp (including vehicles with trailers using the ramp).

AT's preference /suggestion is that the bus turnaround area is located within the 'apron' at the corner of Sir Peter Blake Parade and Cross Street.

- Please provide details of the walking /pedestrian route between the bus stop /platform and the ferry terminal. It is expected that the route will provide clear, safe, and legible access and will tie /link into the pedestrian route requested under point 30 below.
- Please confirm that AC /AT have access /easement over the turning head area and please provide a plan showing this.



Please note that the AT hammerhead where the existing park and ride is located will likely be re-developed (subject to funding) to have new park and ride and ferry terminal and cannot be used for the bus turning area until this is re-developed (i.e. as part of this current resource consent application).

- Please provide updated plans showing a 'marked out' bus stop (including 15m long, 2.5m wide platform and bus stop road markings with same dimensions as the platform and shelter (detail to be confirmed at detailed design)).

It is AT's preference is for the stop /shelter and platform to be in the blue hatch on the above snip. Please note that the platform area in the sketch is longer than bus stop and this is not correct the bus stop needs to be longer than the platform.

Note: It is noted that the Sir Peter Blake Drive extension falls within sub-precinct C this identifies that this sub precinct provides for a bus stop.

Council Review:

The plan provided showing the possible bus turning /tracking over AT land is quite 'conceptual' and it raises several additional queries.

Please clarify the following:

- From the information provided it is not clear who the applicant is proposing would install and construct the necessary facilities for buses to enter, track and stop on AT land or the timeframes for this.
- It is not clear from the information (including figures 13 and 14) where the bus would enter the AT area off Sir Peter Blake Parade. Please provide a plan show where buses would enter AT land off Sir Peter Blake Parade (including a full tracking plan for a 12.6m rigid and 13.5m rear steer bus confirming that a bus could safely turn /enter the AT area and plans showing tracking with the buses turning and a vehicle and boat trailer coming in on the opposite direction on Sir Peter Blake Drive).
- Please provide tracking full tracking plan for a 12.6m rigid and 13.5m rear steer bus showing how a bus would turn /track out of the AT area onto Sir Peter Blake Parade and how the current conflicts with two parking spaces would be avoided (including plans showing tracking with the buses turning and a vehicle and boat trailer coming in on the opposite direction on Sir Peter Blake Drive).

AT's suggestion is that the initial tracking plans indicate that the two car parking spaces will need to be removed.

- Please provide plans /tracking diagrams confirming that buses 12.6m rigid and 13.5m rear steer bus can track on Sir Peter Blake Drive with a vehicle with a boat trailer on the opposite side of the road.
- The current bus turning area has a potential for conflict and queuing between buses turning, vehicles with boat trailers accessing the boat ramp, pedestrians and cyclists. Based on the information / plans provided AT don't have sufficient information to review and comment and, based on the information, provided we have concerns about the possible conflicts.
- The location and position of the proposed parallel boat trailer parking is likely to result in conflicts with the buses and vehicles trying to enter the parking spaces. As per Auckland Council's Consultant Traffic Engineers response we don't support the location of the parallel boat trailer parking.
- There does not appear to be details provided of a walking /pedestrian route from the park n ride, proposed bus stop. Please provide details of the route.

The possible layout of bus turning and using the AT land will require further review, assessment and a separate resource consent the following information is requested as part of the initial feasibility stage of determining whether the layout is feasible and workable:

- Pavement assessments for the area including the effects of accommodating heavy vehicle traffic and turning manoeuvres. Similarly, where traffic loading is anticipated in the proximity of seawalls and wharf structures, full structural assessments will be required. In the event that pavements, seawall or wharf integrity are unable to accommodate heavy vehicle loads, new designs or strengthening will be required.
- In areas where new carriageway construction is proposed, full Geotechnical investigations would be required to support appropriate pavement design.
- The existing stormwater management across the site is likely to be non-compliant of current standards. Redevelopment, additional pavement areas, reconfiguration of traffic routing and parking would require a comprehensive stormwater design in compliance with current environmental standards, please provide initial details /plans.
- Planning of potential demolition and/or disposal of contaminated materials.
- Arborist Report and details of impact to trees of significance e.g. Pohutukawa and what would be required for bus turning on the trees.
- Assessment of environmental effects (AEE).
- Please provide details /clarification of the bus turning options on the AT land are not feasible in the short to medium term."

Response:

Please refer to the response under Section 1.4 Item 20, which fully address the bus turning facility.

A tracking assessment of an AT bus turning right out of the AT land into Sir Peter Blake Parade Extension is provided in **Appendix E**.

It is understood that the following number of parking spaces per activity are required in accordance with the Unitary Plan:

- Residential – 121 (private, internal)
- Commercial – 26
- Marinas – 209
- Car and trailer – 20

Currently, the following supply of parking spaces is proposed by the BMHL development proposal:

- Residential – 215 (private, internal)
- Commercial – 32
- Marinas – 310
- Car and trailer – 20

Although there is an excess supply of spaces with respect to the Unitary Plan requirements, BMHL would prefer not to remove any parking spaces.

If BMHL wishes to provide for the AT Metro bus to turn right out of the AT land onto BML land, it is recommended that at least one parking space is removed from the eastern side of Sir Peter Blake Parade Extension (on the inside of the tracking curve for the bus turning right out of the AT Park'n Ride site) as well as shortening of the second parking space. Although the tracking path extends over the centreline of Sir Peter Blake Parade Extension for a short distance, it is considered a better outcome than a full turning head facility which will certainly have a greater adverse effect on through movements (and pedestrian safety and activity).

It is noted that the removal of this parking space will not result in any Unitary Plan/marina berth-holders parking space shortfall, but as previously stated, is undesirable from BMHL's perspective, and the preference would be to seek alternative solutions to avoid the removal of any parking spaces under the detailed design stage.

Furthermore, a low frequency of buses is expected at this location.

Given the above, this is considered to be the preferred outcome in terms of transportation effectiveness and safety, compared to any other alternative which would require greater turning space (and anticipated negative impact on pedestrians).

As referenced previously and in the legal opinion accompanying the further s92 response, there are no grounds under the RMA to say where the boat trailer parking should be located. The current positions are considered to be generally appropriate and sufficient to accommodate the practical needs of the vehicle swept paths of these vehicles (as been provided as part of the ITA). Any potential overlap between vehicle swept paths is considered to not adversely impact Sir Peter Blake Parade Extension as this is not a high frequency bus route, and actually considered to have a positive effect in terms of reduced operation speed along this section.

A tracking assessment of an AT bus passing a vehicle in the corner on Sir Peter Blake Parade is provided in **Appendix F**. As can be seen from the tracking diagram, a modest scale of carriageway seal widening will be required to accommodate this manoeuvre. No property boundaries will have to be adjusted - it is simply a road widening that requires the kerb to be moved 1m or so back within the Council/AT property and a comparable widening within the BMHL land. It represents approximately 12sqm on each of the BML land and AT land (24sqm in total).

The AT land is considered outside the bounds of this resource consent and any assessments required for this land should be kept separate from this resource consent, and can be handled via separate agreements between BMHL and AT.

1.10 Item 29: Ferry Terminal

"Previous Request:

The AEE and the landscape concept plans show the existing ferry terminal and the AEE notes that this facility will not be retained after 2031 when AT's lease expires. However, the proposed plans and AEE do not discuss the retention of the existing passenger facilities by the ferry rather the Infrastructure report section 3.2.1 identifies that the buildings associated with the ferry terminal will be removed at the beginning of Stage 1.

Please clarify what passenger facilities are to be provided during the next 10 years until the AT lease expires. Please provide updated /revised master plan sheets showing the existing ferry terminal and the location of the associated facilities are to be retained until the AT lease expires.

The ferry terminal facility needs to be maintained in the existing location or similar until AT's lease expires and the Bayswater Precinct Plan under the AUP requires that there is sufficient space provided for the publicly managed transport facilities.

Council Review:

The discussion between AT and the applicant /developer about the possible location of public facilities can continue throughout the consenting process."

Response:

This will be addressed by other members of the BMHL team.

1.11 Item 30: Pedestrian Connections from Park n Ride to Ferry Terminal

“Previous Request:

It is not clear what route pedestrians would take from the park and ride to the ferry terminal. Please confirm what is intended for these pedestrians.

There is car parking proposed along the eastern side of Sir Peter Blake Drive and there is the potential for conflict between pedestrians and vehicles /trailers using the boat ramp.

Please provide revised plans showing a clear and legible route for pedestrians from the existing park and ride to the ferry terminal (including how possible conflicts between vehicles using the boat ramp and parking on the eastern side of Sir Peter Blake Drive will be minimised or avoided)

Council Review:

The response does not address the query and it considered that based on the proposed design /layout with bus turning onto AT land and in the area of the boat ramp that the pedestrian route would not be overly safe or functional.

Please provide plans showing a clear and legible route for pedestrians from the park and ride and proposed bus stop to the ferry terminal (including details of how the potential conflicts between vehicles using the boat ramp, parking on the eastern side of Sir Peter Blake Drive and turning buses will be minimised or avoided).”

Response:

Refer to response under Section 1.4: Item 20 and Appendix D, which provide for a sufficient and safe route between the existing Park’n Ride and Ferry Terminal.

1.12 Item 31: Bike Parking

“Previous Request:

Please show /detail on the plans the resident and visitor bike parking spaces for the proposed apartments and confirm that the number of spaces complies with the AUP requirements. Please show on the plans where the proposed ‘bike’ parking spaces will be located for the commercial activities on site and please confirm that the number of spaces complies with the AUP requirements.

Council Review:

There appears to be a discrepancy between the number of bike parks noted in the s92 response under Item 31 as it is not clear on the plans where the visitor bike parking spaces will be for two of the apartment buildings or where the bike parking will be for the commercial activities.

Please provide updated /revised plans clarifying the above.”

Response:

Attachment 2 – Apartment Architecture, of the application material (see s92 re-issued version) shows bike racks on all three apartment basements.

Public bike racks and secure visitor parking are delineated on the Cycle Movement Strategy Plan within Landscape Concept Package June 2021.

For commercial activities, 1 visitor bicycle parking space and 3 secure bicycle parking spaces will be provided. These bike parking space will be provided on-site within the commercial area to meet the requirement. The Boffa Miskell plans indicate the location of these spaces.

1.13 Item 33: Cycle Facilities / Routes

“Previous Request:

From the plans /information provided, it is not clear where the cycle routes are throughout the development /site.

The Precinct Plan under the AUP requires that there are cycle routes within the Precinct.

Please provide plans that show /detail cycle routes within the Precinct (and it is anticipated the cycle routes would provide access to the ferry terminal, commercial activities and coastal areas.

Note: It would be helpful that the plan is provided by way of a have a dedicated sheet within the landscape concept plan to the cycle movement strategy with any subsequent plans updated once the strategy is confirmed.

Council Review:

The response shows the cycle movement strategy and notes that the environment will be a low-speed traffic environment.

We noted that the cycle strategy uses Sir Peter Blake Drive extension, and this has the potential for conflict between buses, cars / boat trailers and cyclists /pedestrians.

As noted in Auckland Council's Traffic Consultant's response details of the traffic calming have been requested and the traffic calming measures should ensure that the roads are designed to achieve a 30 km/h speed. Please provide details of the traffic calming proposed and confirmation that this will achieve a 30 km/h speed."

Response:

Refer to Section 1.5: Item 21.

1.14 Item 34: Road Cross Sections

"Previous Request:

Please provide a typical cross section showing the proposed South Street, Cross Street, North Lane and Sir Peter Blake Drive Extension including

- footpaths;
- carriageway;
- landscaped berm/ area;
- angled /parallel parking..

Council Review:

Please clarify if the 6m carriageway shown for the Sir Peter Blake Drive will be wide enough to accommodate a bus and vehicle with a boat trailer in the opposite direction."

Response:

A tracking assessment of Sir Peter Blake Drive is provided within **Appendix F**.

1.15 Item 36: Cycle-ways

"Previous Request:

Please clarify if cycling to and from the development (including the ferry terminal) on the existing road is considered to be safe and how this is achieved through the design of the new road network extension particularly given the expected volume and types of vehicles which will be using this road

As the development is likely to generate additional cycle activity AT preference is for protected cycleways to be provided along the extension of Sir Peter Blake Drive and preferably up to the roundabout of Bayswater Avenue and Sir Peter Blake Drive.

Council Review:

The response does not adequately address the query whether it is considered safe to cycle on the existing road and how the extension of Sir Peter Blake Drive will be safe to cycle on.

As noted above under response to Item 28, it is considered that there is the potential for conflict between buses, cars and boat trailers and pedestrians /cyclists.

Please clarify if cycling to and from the development on the existing road is considered to be safe and how the design of the road extension will be safe for cyclists (given the potential conflicts noted above)."

Refer to Section 1.5: Item 21.

1.16 Item 37: Confirmation of Width of Sir Peter Blake Drive Extension

“Previous Request:

Please confirm /clarify that the extension of Sir Peter Blake Drive is wide enough to accommodate buses, as this information is not currently shown on the plans.

It is noted that Auckland Transport’s TDM sets out the widths of road carriageway required for bus tracking and this information is required as buses need to be able to travel along Sir Peter Blake Drive.

Note: It is noted that the Sir Peter Blake Drive extension falls within sub-precinct C this identifies that this provides for a bus stop so needs to be wide enough to facilitate access to the stop.

Council Review:

As noted above under AT’s response to Item 28, it is not clear from the information provided that there is sufficient space for on Sir Peter Blake Drive to accommodate a bus and car and boat trailer as shown in Figure 14 of the Stantec s92 response.”

Refer to Section 1.14: Item 34.

1.17 Item 38: Upgrade of Crossing Point on Sir Peter Blake Drive

“Previous Request:

Please provide clarification as to whether the existing refuge on Sir Peter Blake Drive (see snip below) is considered to be appropriate given the additional volumes of vehicle movements and additional pedestrian demand from the redevelopment of the precinct. If you can provide an additional traffic assessment on the safety of this existing refuge.



The development will generate additional pedestrian activity which may necessitate the upgrading of the existing pedestrian refuge on Sir Peter Blake Drive is not considered to be suitable to provide for safe and efficient pedestrian crossing.

Note: It is AT’s view is that the development generates the need for the refuge crossing to be upgraded to a raised pedestrian crossing to allow safe pedestrian access.

Council Review:

The response provided does not adequately address or answer the query as to whether the upgrading of the existing pedestrian refuge is warranted.

Please complete the Austroads Pedestrian Facility Selection Tool to determine if an upgrade to the pedestrian refuge is warranted.”

Response:

An assessment using the Austroads Pedestrian Facility Selection Tool is attached as **Appendix G**, and confirms that the current refuge island performs with acceptable results.

1.18 Item 82: Pedestrian connections to the existing Park n Ride Facility

“Previous Request:

Please clarify why there are no pedestrian routes provided for in the design of the proposal from the existing park n ride facility given requirements of I504.9.(1)(c)?

Principle 9 of the Urban Design statements states that the proposal seeks to achieve ‘excellent public pedestrian access’, in particular that the public access will achieve logical, convenient, safe and generous public access. However, it does not talk about the pedestrian access to the ferry terminal and the Boffa Miskell Landscape Concept pedestrian strategy does not even indicate it as a source of a main or secondary pedestrian route.

The special information requirements under I504.9 require:

(1)(c) Requires identification of the main pedestrian routes that provide circulation around each sub-precinct area and between sub-precincts, showing how they are integrated with the coastal margin, public transport nodes and bus stops.

(1)(j) How sub-precincts will integrate with each other and other surrounding land and the coast;

(1)(k) How the development provides or facilitates adequate transport connections, including connections to the surrounding road network.

The park n ride facility serves passengers using the ferry terminal. This terminal still has 10 years to run on this ferry lease with this area of the site identified as stage 1. Consequently, pedestrian access through from the park n ride and bus stop must be considered yet this is not included as an assessment point nor is it shown on the pedestrian movement strategy prepared by Boffa Miskell. It is unclear from the landscape concepts, engineering plans or urban design assessment how users of the existing park n ride facility adjacent to the site would actually access the ferry from this parking area or whether any assessment of the existing desire lines from this facility have been considered or incorporated into the site proposals. There are no clear pedestrian connections shown with a new retaining wall and parking areas actually defining this interface see item 73 above.



Note: It is noted that AT and Kate Brill and John Steinberg have raised similar queries on this matter.

Council Review:

AT have raised concerns about this at point 30 above.”

Response:

Refer to Section 1.11: Item 30 above.

1.19 Item 5: Trailer Parking

“Previous Request:

The 1504 Bayswater Marina Precinct Plan in the AUPOP has a requirement for the provision of 20 car and boat trailer parking spaces. The application proposes to have the parking spaces dispersed throughout the site, in relatively ambiguous locations. The majority of the car and trailer parking requires the driver to perform a parallel park manoeuvre to access the park which can be a difficult manoeuvre for some drivers towing a trailer. The proposed location of the trailer parking spaces is not supported for the following reasons:

- a. The car and boat trailer parking should be provided in a location that is accessible and obvious to the user, preferably near the berths / boat ramp. The current arrangement will involve drivers towing a trailer circling the site trying to find a vacant parking space. This may result in an unnecessary risk to pedestrian safety.
- b. Circulating the site looking for trailer parking and negotiating parallel parking on the roadside will potentially lead to delays for other vehicles.
- c. Several of the car and trailer parking spaces are located inside the residential precincts. Wayfinding is unlikely to be obvious to members of the public to enter what will appear as private property in order to access a marina car park. Once inside the shared space environment, complicated reverse manoeuvring will be required in a space that encourages pedestrians, children playing etc.
- d. The vehicle crossings and the shared spaces inside the residential precincts are excessively wide to allow for the trailer parking inside the precincts. Both the shared space and vehicle crossings widths could potentially be narrowed down significantly to promote slower traffic speeds and a more efficient use of land.

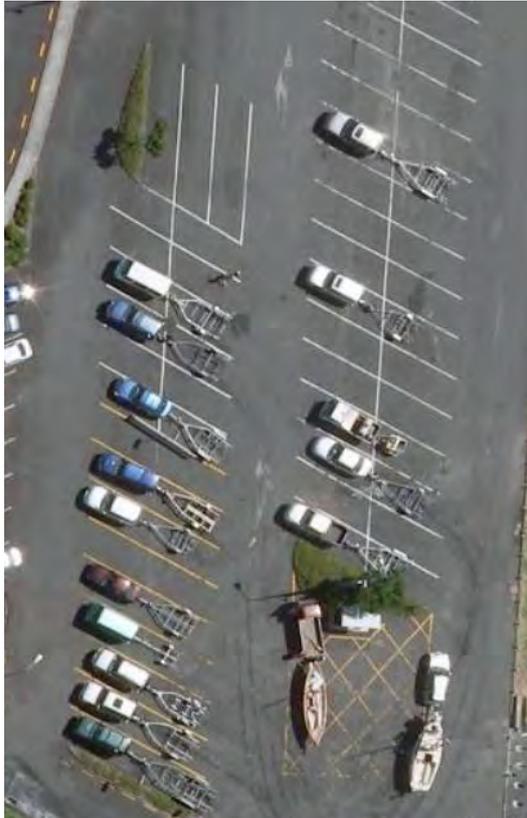
Please consider relocating the car and boat trailer parking to reflect the following:

- i. All car and boat trailer parking provided in one legible location for improved wayfinding and a reduced need for circulating through the site and residential precincts.
- ii. The car and boat trailer parking spaces to be provided in a diagonal arrangement to ensure easier manoeuvring into and out of the parking space.

iii. Preferably located close to the berths / boat ramps and outside of the residential precincts.

Council Review:

We maintain our position that the location of the trailer parking is a poor outcome for the marina for the reasons provided originally. A search of historical aerial photography shows the boat ramp is well used and the provision for 20 car and trailer parks will be in demand (aerial imagery 2010/2011 provided in Figure 2). The draft Construction Management Plan which accompanied this application also highlights the boat ramp as popular. Wayfinding signage will go some way in assisting drivers to find the trailer parking, however this does not address the other issues presented.



Abley have sketched two possible locations for trailer parking and undertaken vehicle tracking for car and boat trailer, as shown in Figure 3. The suggested option in the residential precinct allows the car and trailer to enter and exit the parking space in a forward direction. The option on the western side of the marina utilises some of the proposed public space/reserve. If this is not an option, then the removal of the car parking opposite the trailer parks could be investigated.



Response:

The legal opinion provided to BHML by Kitt Littlejohn confirms that there is no requirement to assess the convenience of the car and trailer parking.

It is appreciated that there are a number of ways and means by which the boat and trailer parking can be provided, however, the proposed boat and trailer parking is considered to operate effectively (as per tracking assessment provided within Stantec’s ITA) and without adverse effects on the broader public road users and is therefore considered acceptable.

It is considered that the overall transport environment of the BMHL environment is one involving low speed and local traffic movements, where all users will be appreciative and aware of the needs of the marina and boat-based activity.

1.20 Item 7: Access Points to Residential Precincts

“Previous Request:

The vehicle access points for the residential precincts are shown as one-way accesses in the Landscaping Plans (Attachment 6.1), however the Transport Assessment (TA) assesses the width of the access points under E27 as two-way vehicle crossings which allows for a greater width. Please narrow down the vehicle crossings to cater for one-way traffic. The tracking provided does not warrant the width currently proposed. The wide aisle widths in the shared space may also benefit from being narrowed down to ensure the large open shared space areas do not invite illegal / informal parking.

Please redesign the residential shared spaces and vehicle crossings allowing for one-way traffic flows, assuming that vehicle tracking for boat trailer parking will not need to be accommodated within the residential precincts (See item 15 above). Please also provide detail on how the one-way systems will be designed / sign posted to ensure compliance.

Council Review:

Memo identified this item was not addressed as part of the response.”

Response:

This is the width is required to allow for the required tracking of a rubbish truck. Refer to Appendix B Sheet 2 of 7 of the ITA.

1.21 Item 8: Give Way Markings

“Previous Request:

Please provide give way markings at the intersections on the new private road network.

Council Review:

Memo identified this item was not addressed as part of the response.

Response:

A condition of consent is recommended for the provision of these markings at detail design stage.

Stantec New Zealand

Appendices



Appendix A Turntable Specifications

Turntable Overview

Model No:	CTX48
Application:	Driveway
Mounting:	In Ground
Occupancy:	Vehicle

Turntable Details

Turntable Diameter:	4800 mm
Turntable Height:	200 mm
Turntable Operating Capacity:	4000 kg
Turntable Operating Speed:	Fixed 1 RPM Nom.
Deck: Type	Steel
Thickness	5 mm
Paving: Feature:	None
Height:	0 mm
Mass Limitation: ≤	0 kg
Distributed Load Capacity:	5 kPa

Super-Imposed Loads (kN)

Centre	50
Running Track	100

Design and Construction

The design of the turntable includes:

- (i) Structure: Spoke & Crossmember Design
- (ii) Support Wheels: Integrated into the Revolving Structure.
- (iii) Drive Mechanism: Gear driven powered by motor drive
- (iv) Steel Components: Galvanized and/or Zinc Coated.
- (v) Additional Features:

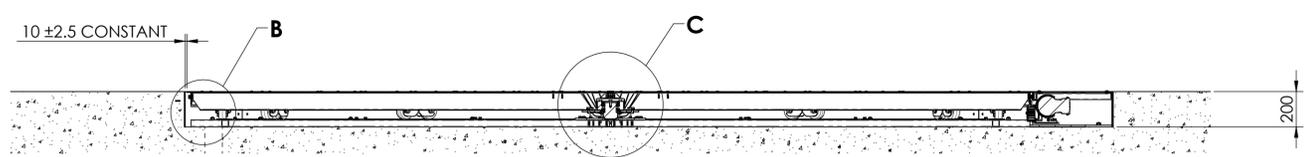
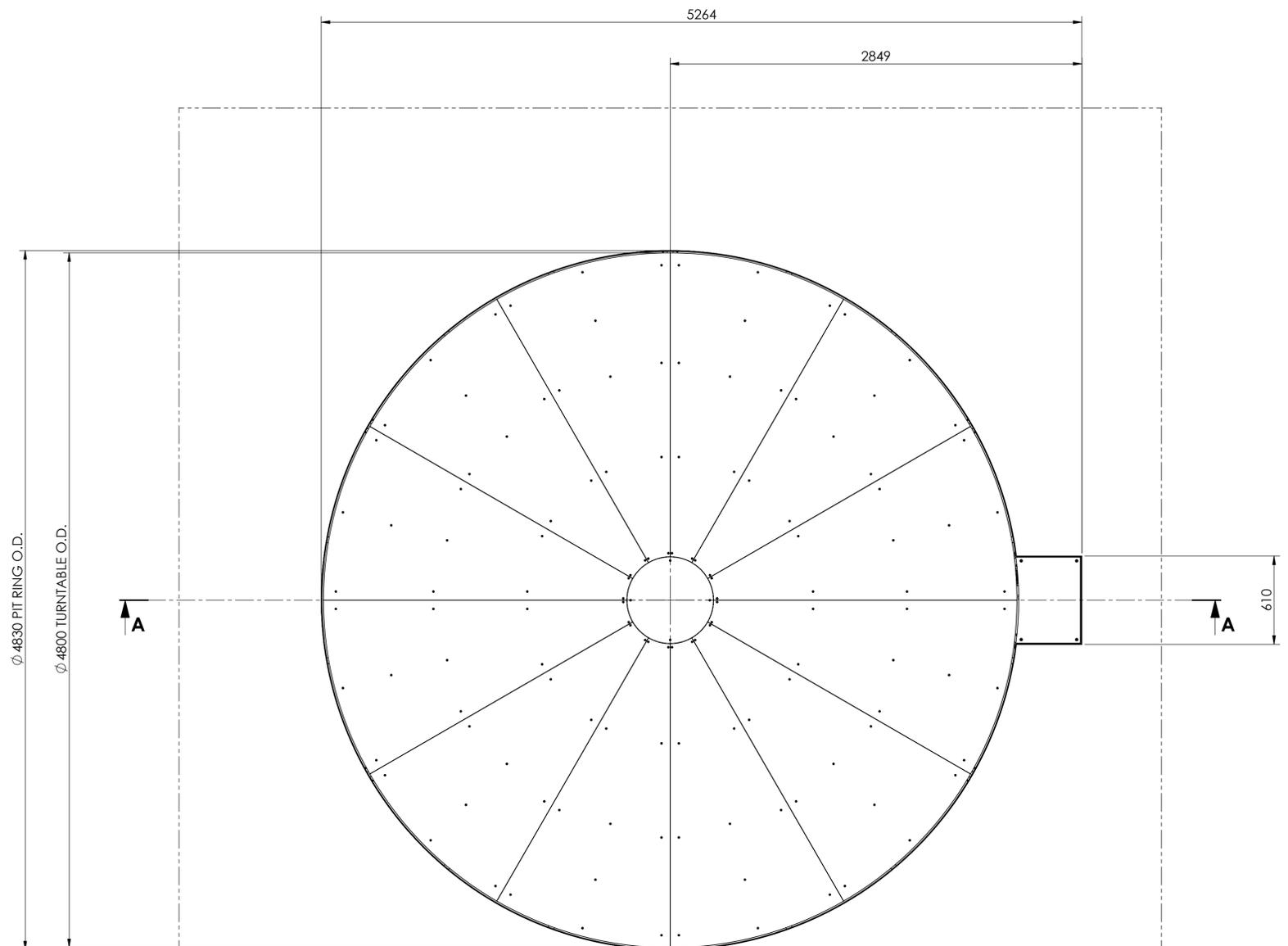
Control System Information

Direction of Rotation:	Bi-Directional
Feature:	Soft Start - Ramp up / Ramp down
Controller:	Power 0.37 kW
	Type: Fixed Mounting
	Interface: Handheld Remote
Power Supply:	AC - 240V 50Hz 10Amps

General Information

Design Standard:	AS1170.1:2002
------------------	---------------

TURNTABLE SPECIFICATION	
OPERATING CAPACITY	4000 kg
SPEED	1 RPM
DRIVE	GEAR AND PINION WORM GEARBOX, 0.37kW AC MOTOR
SUPPLY POWER	240V, 50Hz, 10A



35	136	WHSDS12-24G	WAFFER HEAD SDS 12-24 SERIES 500 GAL	
34	22	T12140GH	TRUBOLT M12 x 140 GH	
33	4	T12100GH	TRUBOLT M12 x 100 GH	
32	48	SWM10ZP	SPRING WASHER M10 ZP	
31	82	SWM8ZP	SPRING WASHER M8 ZP	
30	1	SWM6ZP	SPRING WASHER M6 ZP	
29	1	SS4-21-20BK	PINION GEAR 21T 4M Ø20 BORE & KEY	
28	1	SK1SM140VX-IEC71-71L4-46-0.37-M1A3IV-20-TF-IP66	NORD GEARMOTOR - SK 1SM140VX IEC71 - 71L/4, 46 RPM, 0.37 kW, 20mm SHAFT	
27	4	SHCSM8x35ZP	SOCKET HEAD CAP SCREW M8 x 35 ZP	
26	1	MW0832	MUDGUARD WASHER 0832	
25	48	HBM10x25HTZP	HEX BOLT M10 x 25 HT ZP	
24	54	HBM8x30HTZP	HEX BOLT M8 x 30 HT ZP	
23	24	HBM8x16HTZP	HEX BOLT M8 x 16 HT ZP	
22	1	HBM6x40HTZP	HEX BOLT M6 x 40 HT ZP	
21	48	FWM10ZP	FLAT WASHER M10 ZP	
20	100	FWM8ZP	FLAT WASHER M8 ZP	
19	4	BHSSM10x12SS	BUTTON HEAD SOCKET SCREW M10 x 12 SS	
18	1	70.2086	CTX48 TURNTABLE : PIT DETAIL	
17	12	60.2404	CTX TURNTABLE : CROSSMEMBER A	SEE TABLE
16	6	40.2467	CTX48 : DRIVE RACK	5mm PL (250 MPa)
15	1	20.4045	RISER PLATE : B	5mm PL (250 MPa)
14	12	20.3869	CTX48 TURNTABLE : DECK PIECE	5mm FLOOR PLATE (AS/NZS 1594)
13	1	20.3770	RISER PLATE : A	10mm PL (250 MPa)
12	1	20.3625	CTX TURNTABLE : CENTRE DECK	5mm FLOOR PLATE (AS/NZS 1594)
11	12	15.0717	CTX48 - CROSS FRAME	
10	12	15.0652	CTX48 TURNTABLE : SPOKE	
9	1	15.0651	CTX48 TURNTABLE : DRIVE PIT RING (PAIR)	
8	5	15.0650	CTX48 TURNTABLE : PIT RING	
7	6	15.0649	CTX48 TURNTABLE : RUNNING TRACK	
6	18	15.0648	CTX48 TURNTABLE : SETTING ARM	
5	1	15.0608	CTX TURNTABLE : DRIVE PIT DECK	
4	1	15.0607	CTX TURNTABLE : DRIVE PIT FRAME	
3	6	15.0586	CTX TURNTABLE : PIT RING CLAMP	
2	1	10.2712	CTX TURNTABLE : CENTRE BEARING	
1	24	10.1123	WHEEL ASSEMBLY : Ø90 X 40 ACETAL	

ITEM	QTY	PART No.	DESCRIPTION	MATERIAL
IF IN DOUBT ASK DRAWING TO AS1100 DIMENSIONS IN mm U.N.O. TOLERANCES: AS SHOWN BELOW U.N.O. LINEAR: NOM. ± 1mm X ± 0.25mm XX ± 0.025mm ANGULAR: ± 1° DEBURR AND BREAK ALL SHARP EDGES				
		Australian Turntable Company 41 Collins Street, Kangaroo Flat Victoria 3555 Australia Tel: +61 3 5447 0525 www.turntables.com.au		
Drawn: C.R.M. Date: 1/10/2014 Checked: Date: _____ Approved: Date: _____		Title: CTX48 TURNTABLE GENERAL ARRANGEMENT Size: A1 Drawing No: CTX48 Rev: A Weight: 1594.68 kg Scale: 1:20 Sheet: 1 of 3		

A	DATE	INITIAL ISSUE	DRN	ECN

REV	DATE	REVISION DESCRIPTION	DRN	ECN

IMPORTANT - PLEASE READ

CONCRETE AND DRAINAGE SPECIFICATIONS ARE TO CLIENT ENGINEERING SPECIFICATIONS.

ZONES A & B:

- IT IS CRITICAL THAT THESE ZONES HAVE AN EVEN FLAT SURFACE AND ARE THE SAME DISTANCE BELOW THE FINISHED FLOOR LEVEL.
- THESE AREAS OF THE PIT ARE WHERE THE TURNTABLE IS MOUNTED AND SECURED.
- CONCRETE REINFORCING TO BE 100mm BELOW SURFACE WHERE POSSIBLE.
- THE OUTSIDE DIMENSION OF THIS ZONE IS LARGER THAN THE TURNTABLE TO PROVIDE SUFFICIENT CLEARANCE FOR THE TURNTABLE SUPPORT STRUCTURE.

ZONE C:

- THIS AREA MUST ALLOW FOR ADEQUATE DRAINAGE. DRAINAGE REQUIREMENTS ARE SUBJECT TO CLIENT ENGINEERING SPECIFICATIONS.
- THIS AREA CAN BE COUNTOUTED TO SUIT DRAINAGE REQUIREMENTS BUT MUST NOT BE HIGHER THAN ZONES A & B.

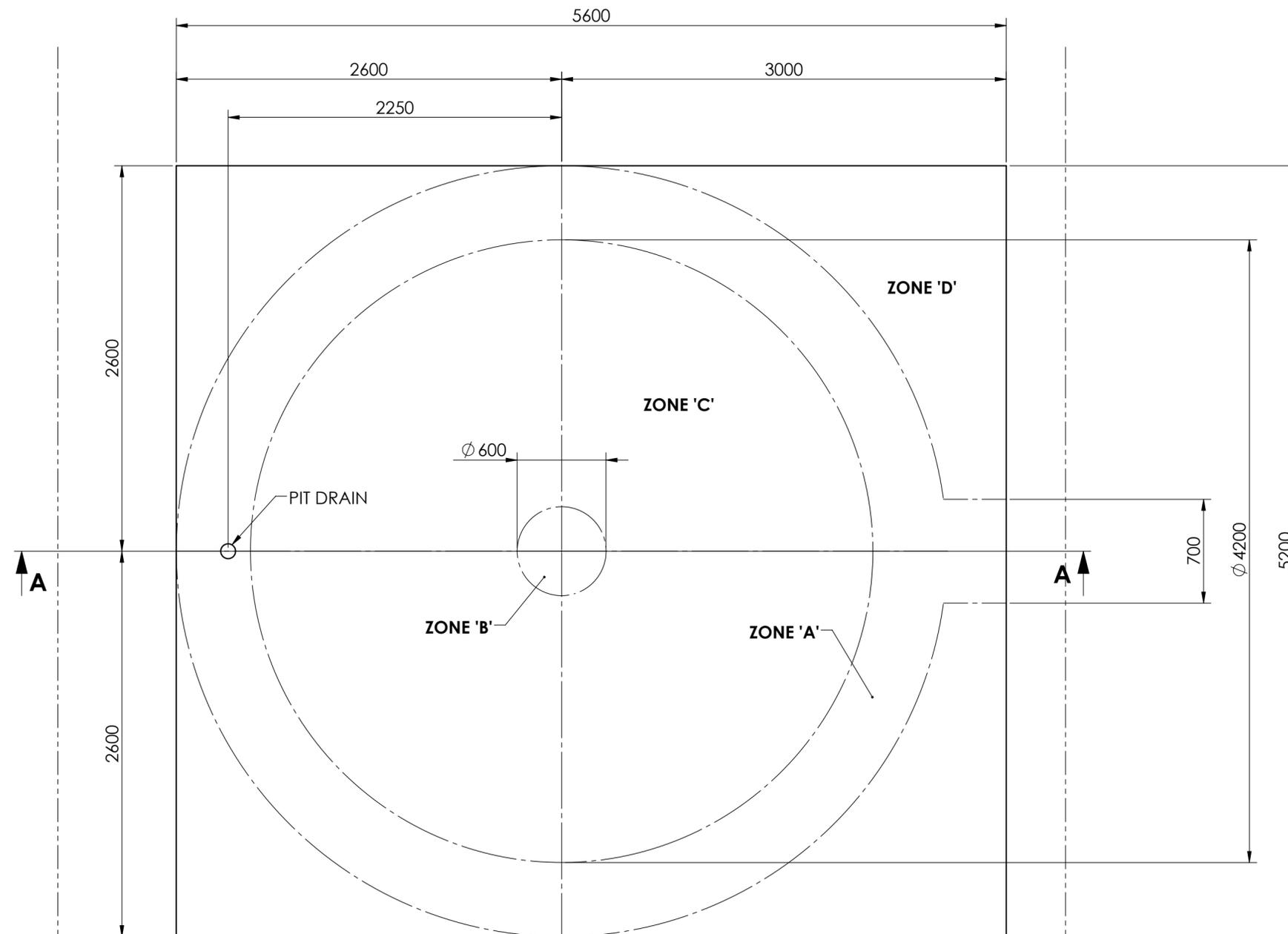
ZONE D:

- THIS ZONE IS SUBJECT TO CLIENTS INDIVIDUAL REQUIREMENTS AS IT HAS NO IMPACT ON THE TURNTABLE.

TURNTABLE SURROUND:

- THIS IS THE FINISHED FLOOR LEVEL OF THE SURROUNDING SURFACE, DRIVEWAY FOR EXAMPLE.
- THIS LEVEL IS CRITICAL FOR DETERMINING THE CORRECT PIT DEPTH.
- WHILST THIS SURFACE MAY NOT EXIST UNTIL AFTER THE TURNTABLE IS INSTALLED, A REFERENCE DATUM MUST BE AVAILABLE.

IF IN DOUBT, PLEASE CONTACT ATC FOR FUTHER ASSISTANCE.



PIT DEPTH = 200 MIN./ 210 MAX.

FINISHED FLOOR LEVEL

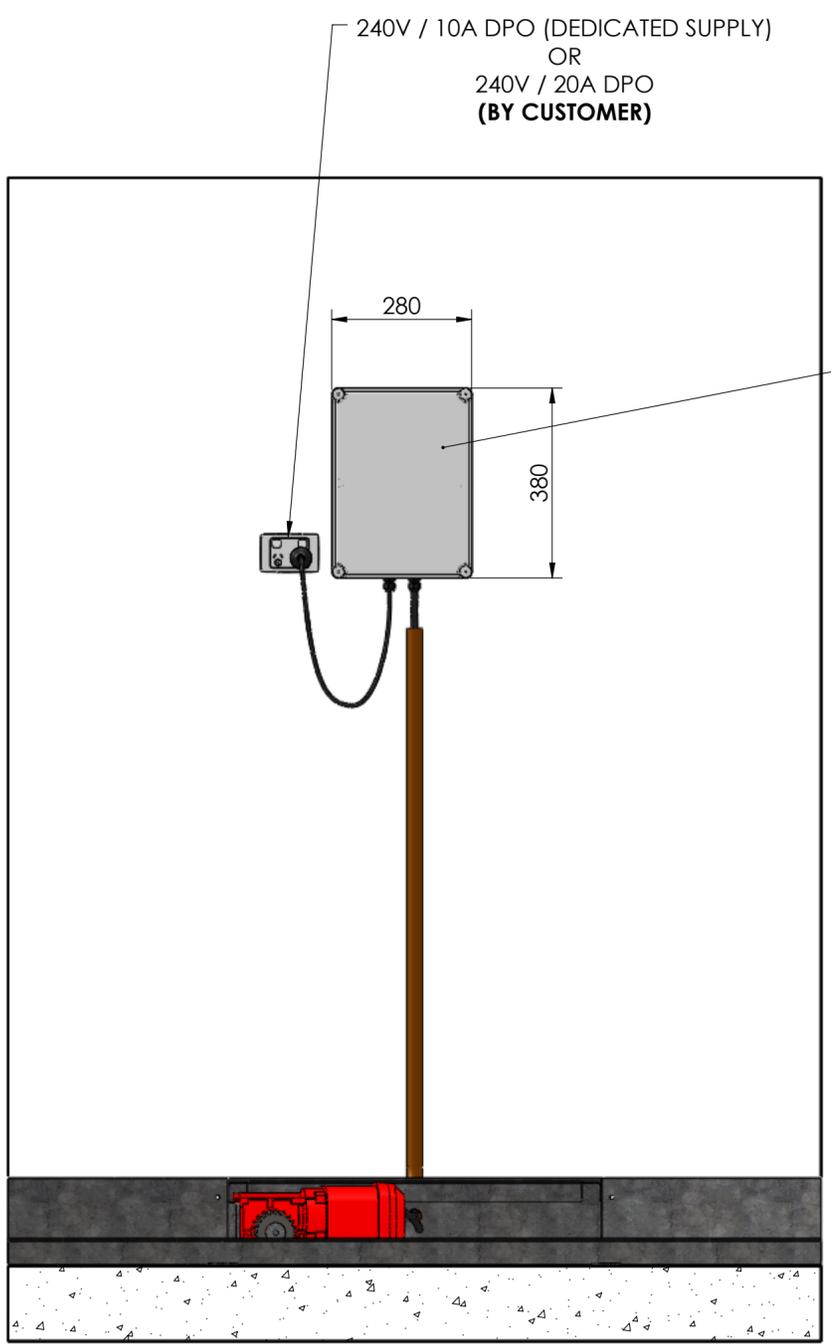
TURNTABLE PIT DRAIN
(INDICATIVE ONLY)

SECTION A-A

SAMPLE ONLY

		IF IN DOUBT ASK DRAWING TO AS1100 DIMENSIONS IN mm U.N.O. TOLERANCES: AS SHOWN BELOW U.N.O. LINEAR: NOM. ± 1mm .X ± 0.25mm .XX ± 0.025mm ANGULAR: ± 1° DEBURR AND BREAK: ALL SHARP EDGES				Australian Turntable Company 61 Collins Street, Kangaroo Flat Victoria 3555 Australia tel: +61 3 5447 0525 www.turntables.com.au		CTX48 TURNTABLE PIT DETAIL			
Drawn	C.R.M.	Date	23/04/2014	Material		Size	A2	Drawing No.	70.2086	Rev.	A
Checked		Date		Finish		Weight	0.00 kg	Scale	1:25	Sheet	1 of 1
Approved		Date									

REV	DATE	REVISION DESCRIPTION	DRN	ECN
A		INITIAL ISSUE		



CONTROLLER (ATC)

- CONTROLLER CONVERTS SINGLE PHASE 240V 10AMP INTO 3-PHASE 220/240V TO OPERATE THE 3 PHASE MOTOR
- MOTOR MUST BE WIRED IN DELTA

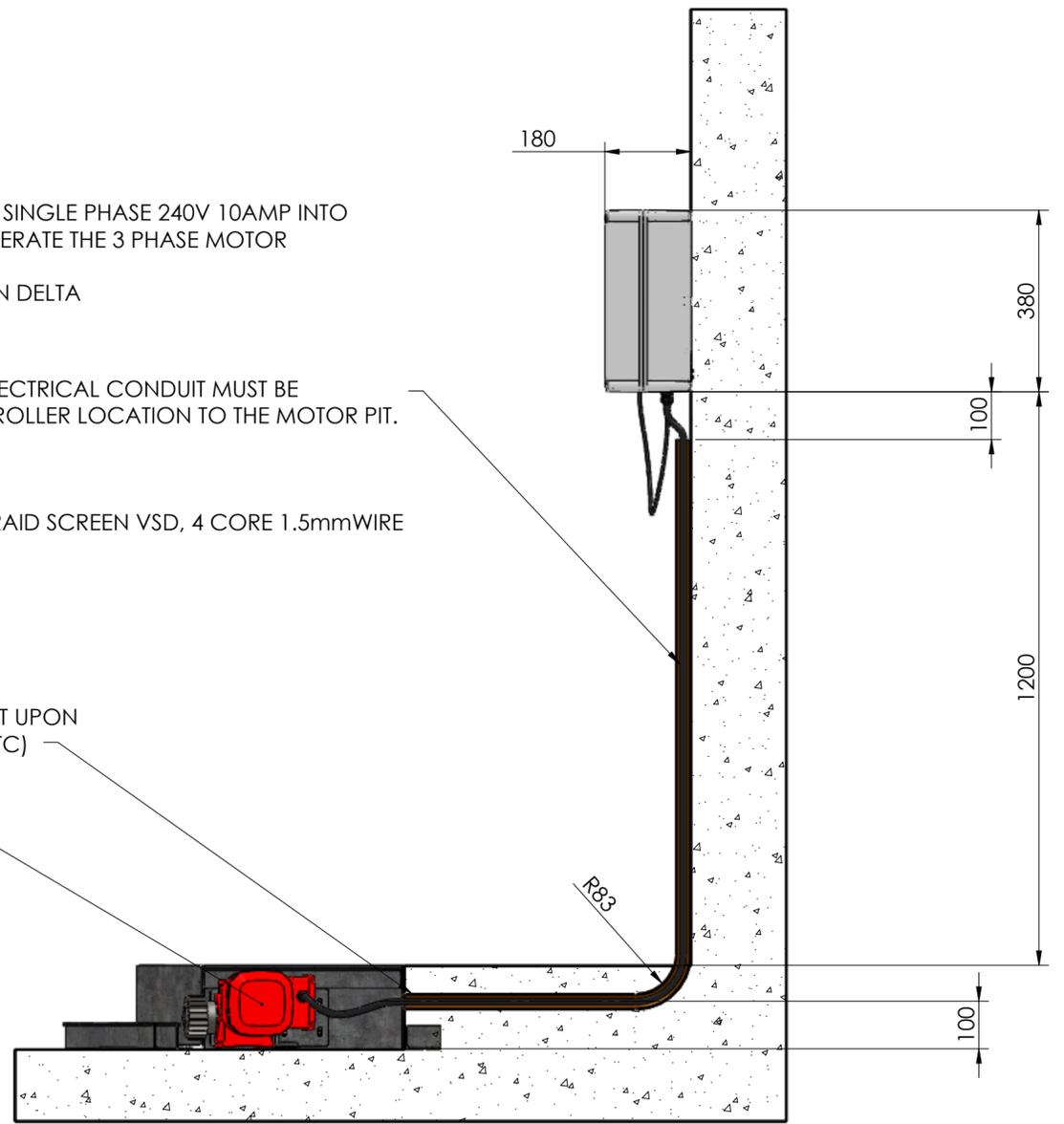
VSD CABLE AND Ø32mm ELECTRICAL CONDUIT MUST BE INSTALLED FROM THE CONTROLLER LOCATION TO THE MOTOR PIT. (1 PER MOTOR)

- CABLE TYPE:
- OLEX - VERSOLEX HD BRAID SCREEN VSD, 4 CORE 1.5mm WIRE P/No. GETR04AA004 (OR EQUIVALENT)

(BY CUSTOMER)

CONDUIT WILL BE CUT TO SUIT UPON TURNTABLE INSTALLATION (ATC)

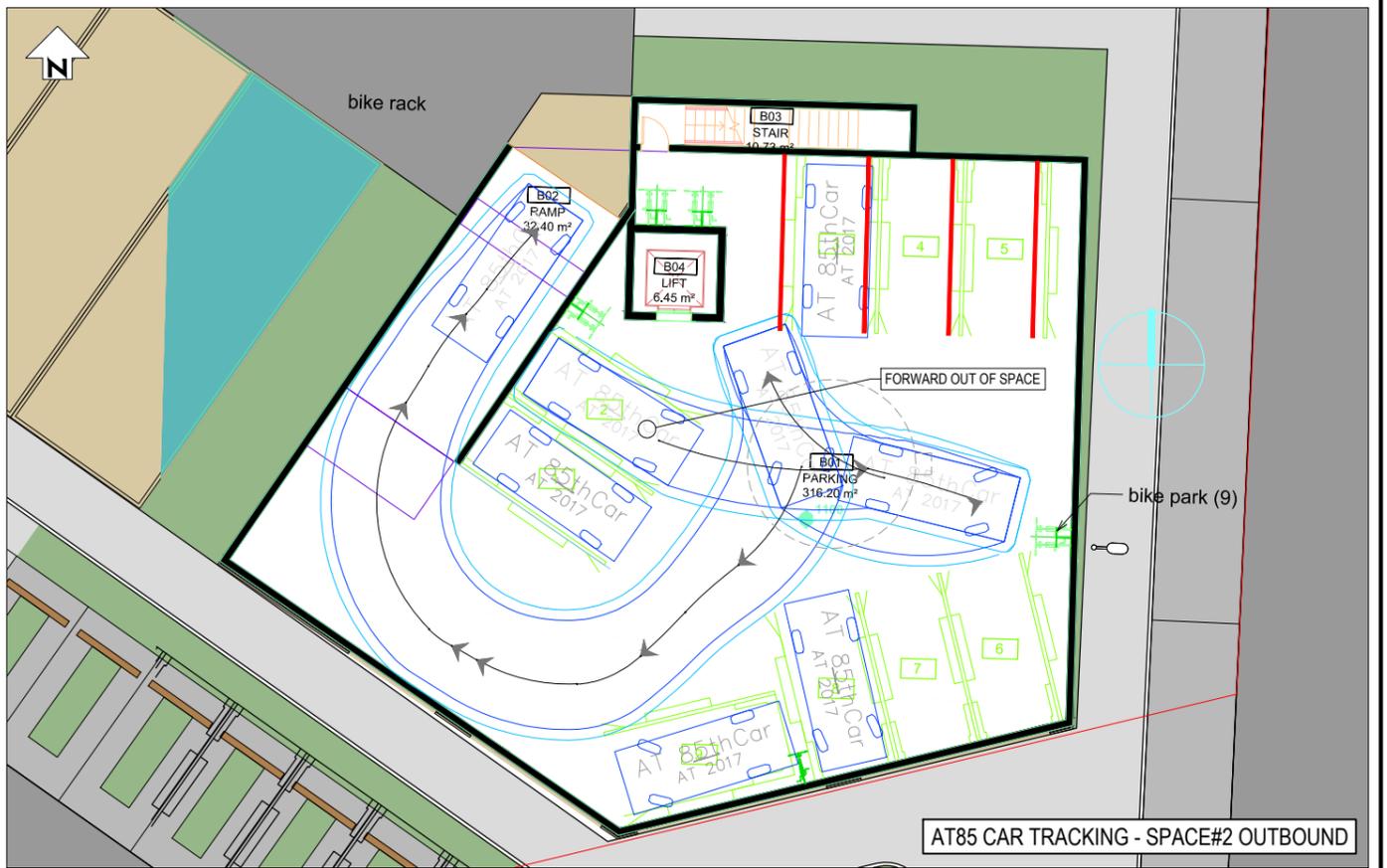
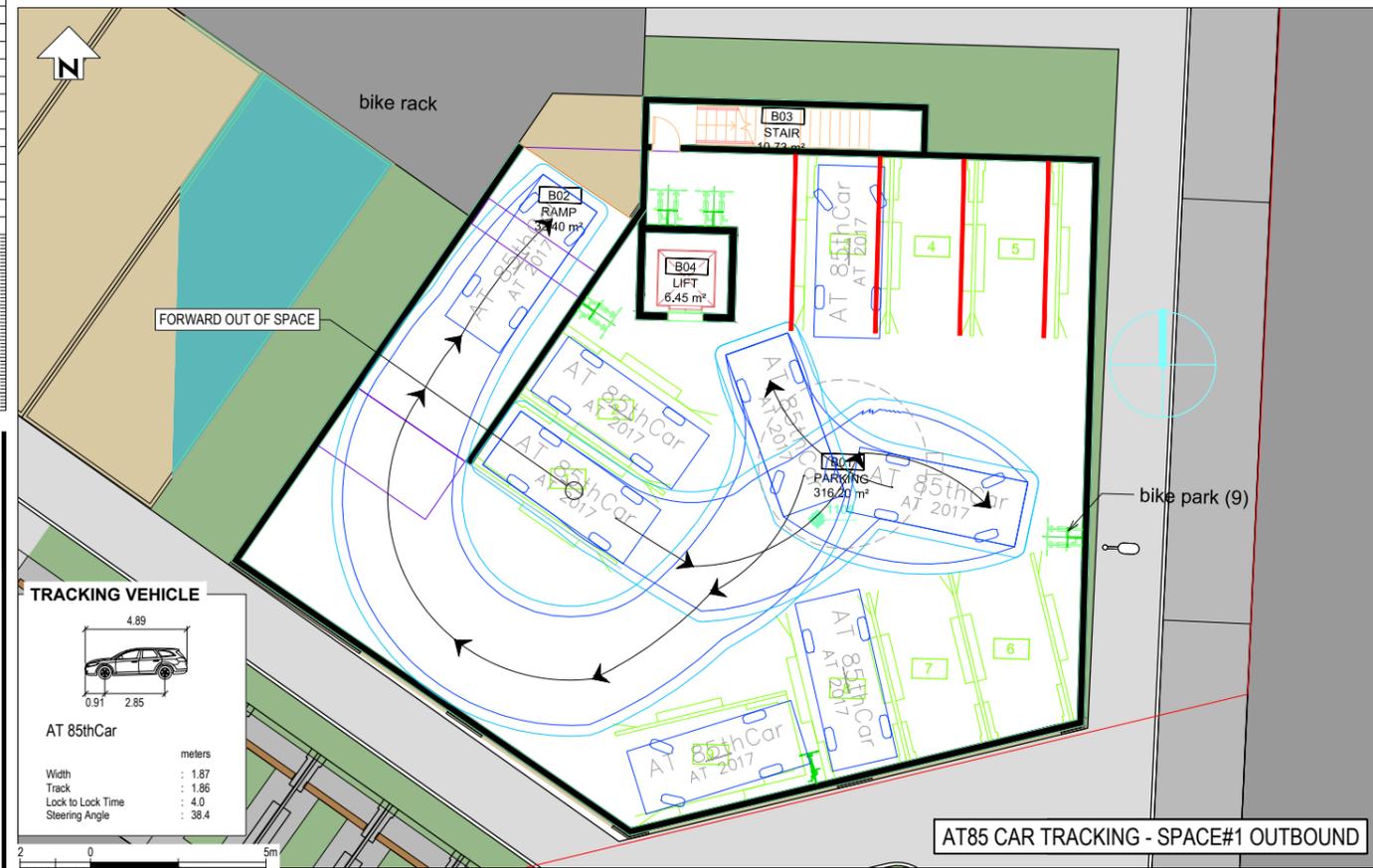
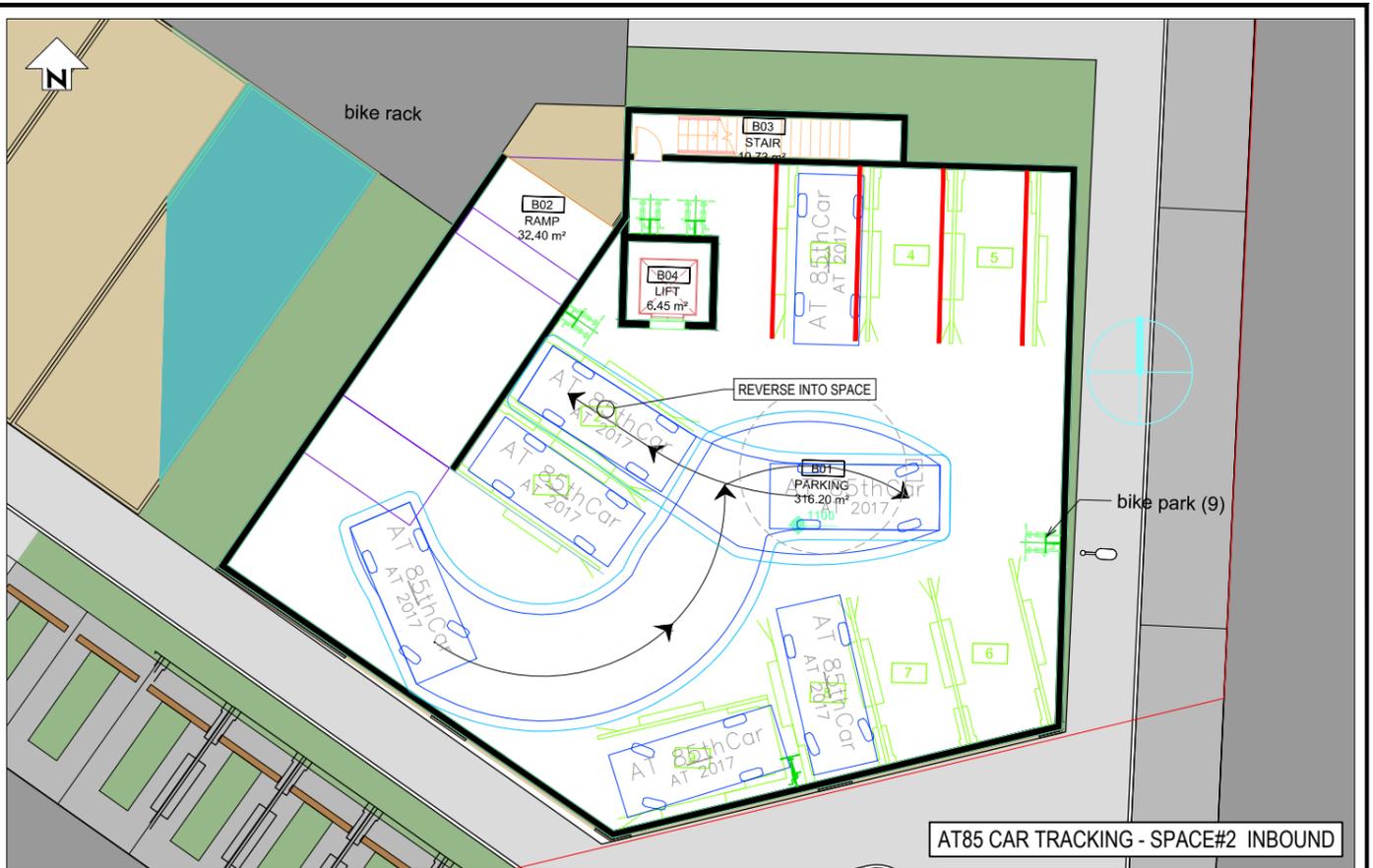
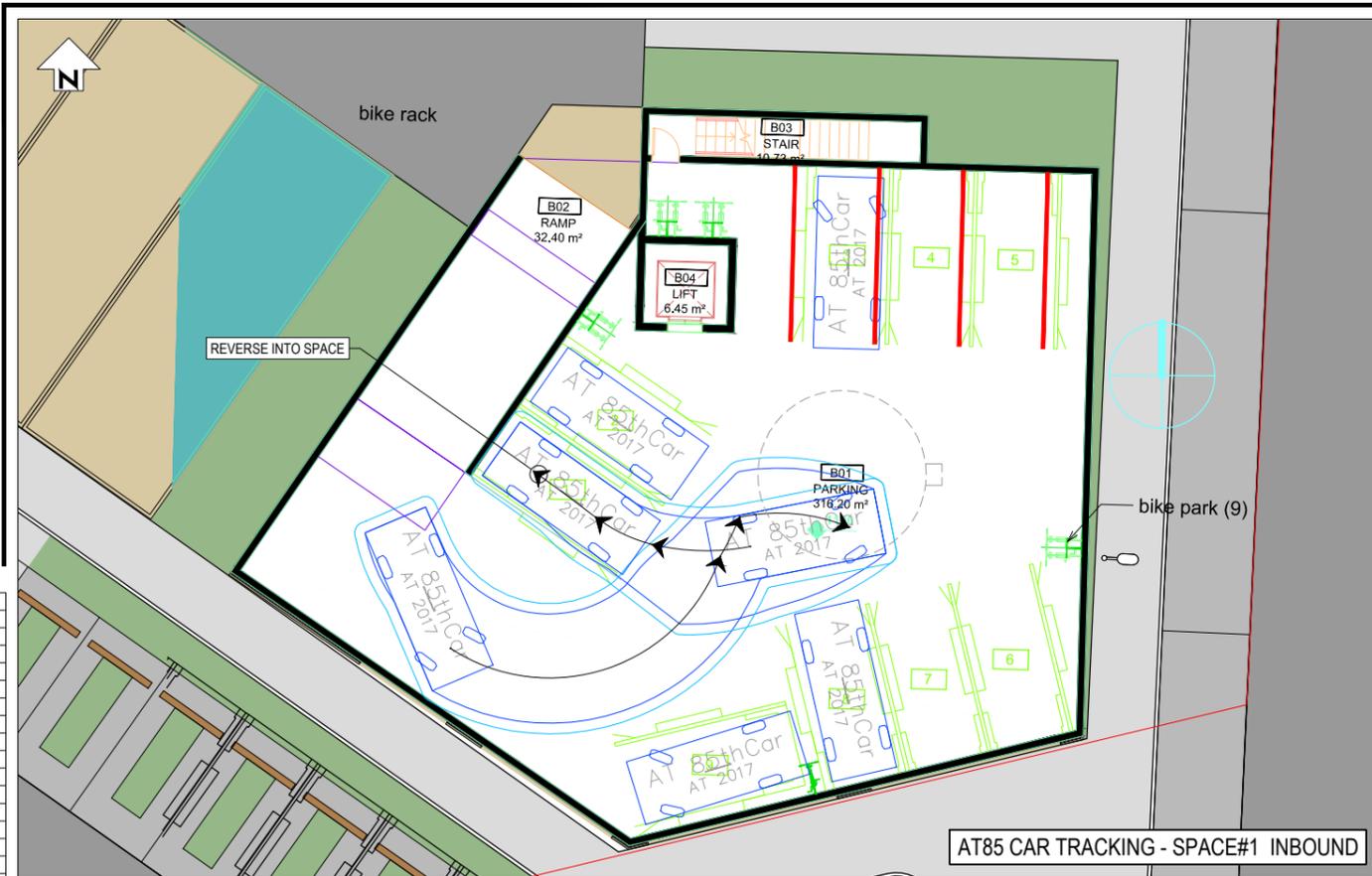
TURNTABLE DRIVE (ATC)



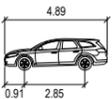
REV	DATE	REVISION DESCRIPTION	DRN	ECN
A		INITIAL ISSUE		

<p>IF IN DOUBT ASK DRAWING TO AS1100</p> <p><small>DIMENSIONS IN mm U.N.O. TOLERANCES: AS SHOWN BELOW U.N.O. LINEAR: NOM. ±1mm .X ±0.25mm .XX ±0.025mm ANGULAR: ±1° DEBURR AND BREAK ALL SHARP EDGES</small></p>	<p>Australian Turntable Company 61 Collins Street, Kangaroo Flat Victoria 3555 Australia tel: +61 3 5447 0525 fax: +61 3 5447 0522 www.turntables.com.au</p>	<p>CT TURNTABLES ELECTRICAL INFORMATION</p>	
		<p>Drawn: C.R.M. Date: 12/05/2014</p> <p>Checked: Date:</p> <p>Approved: Date:</p>	<p>Material:</p> <p>Finish:</p>
		<p>Rev.: A</p>	<p>Sheet: 1 of 1</p>

Appendix B Updated Apartment Basement Tracking Assessment



TRACKING VEHICLE



AT 85thCar
 meters
 Width : 1.87
 Track : 1.86
 Lock to Lock Time : 4.0
 Steering Angle : 38.4

SCALE 1:100

NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRN	CHK	APP
B	UPDATED PLAN: 839_PBA_210821_RC 370[F]- NORTH APARTMENT PLANS.dwg (21.08.21)	27.08.21	SP	GV	DM
A	839_pba_210430_north apartment basement.dwg (30.04.21)	04.05.21	SP	GV	DM

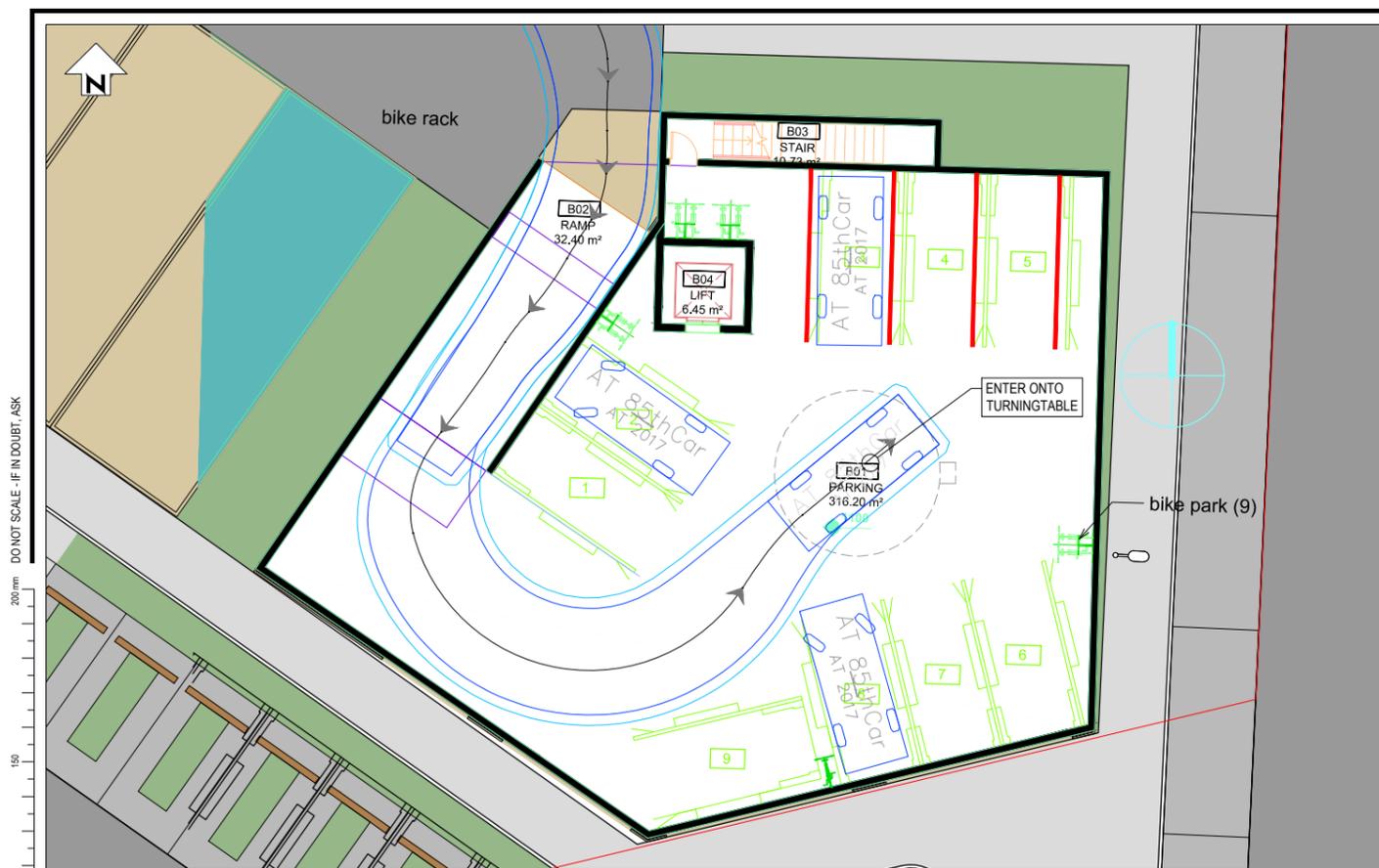
SURVEYED	DESIGNED	DRAWN	CAD REVIEW	DESIGN CHECK	DESIGN REVIEW	APPROVED	PROF REGISTRATION:
		S.PULETIUATO	G.VAN ER WESTHUIZEN	G.VAN ER WESTHUIZEN	D.McKENZIE	D.McKENZIE	
		04.05.21	27.08.21	27.08.21	27.08.21	27.08.21	



BAYSWATER MARINA - PROPOSED DEVELOPMENT
 APPENDIX B - NORTH APARTMENT

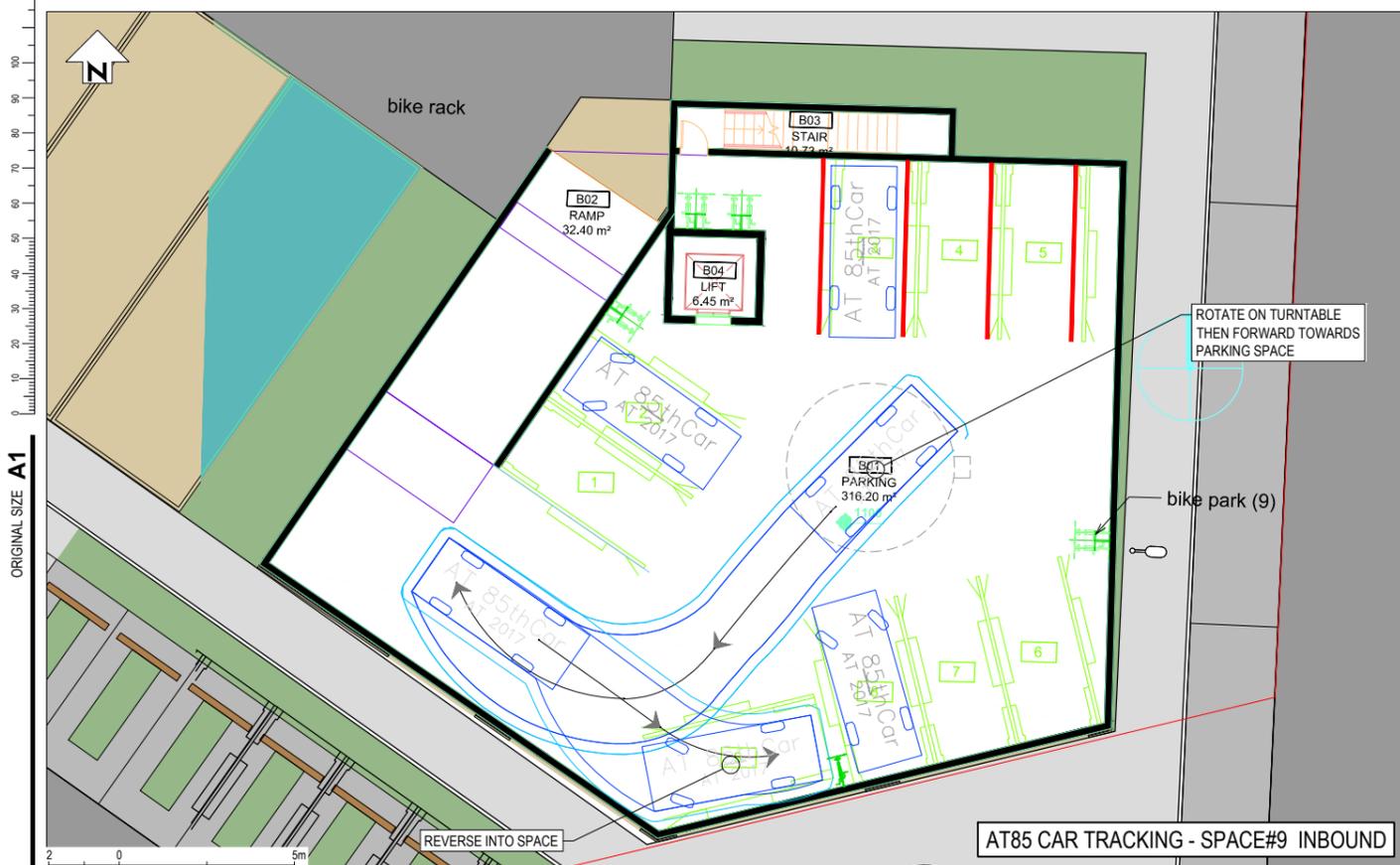
UPDATED APARTMENT BASEMENT TRACKING ASSESSMENT
 SHEET 1 OF 6

Status Stamp	FINAL
Date Stamp	27.08.21
Scales	AS SHOWN
Drawing No.	310200192-01-001-SK015-1
Rev.	B



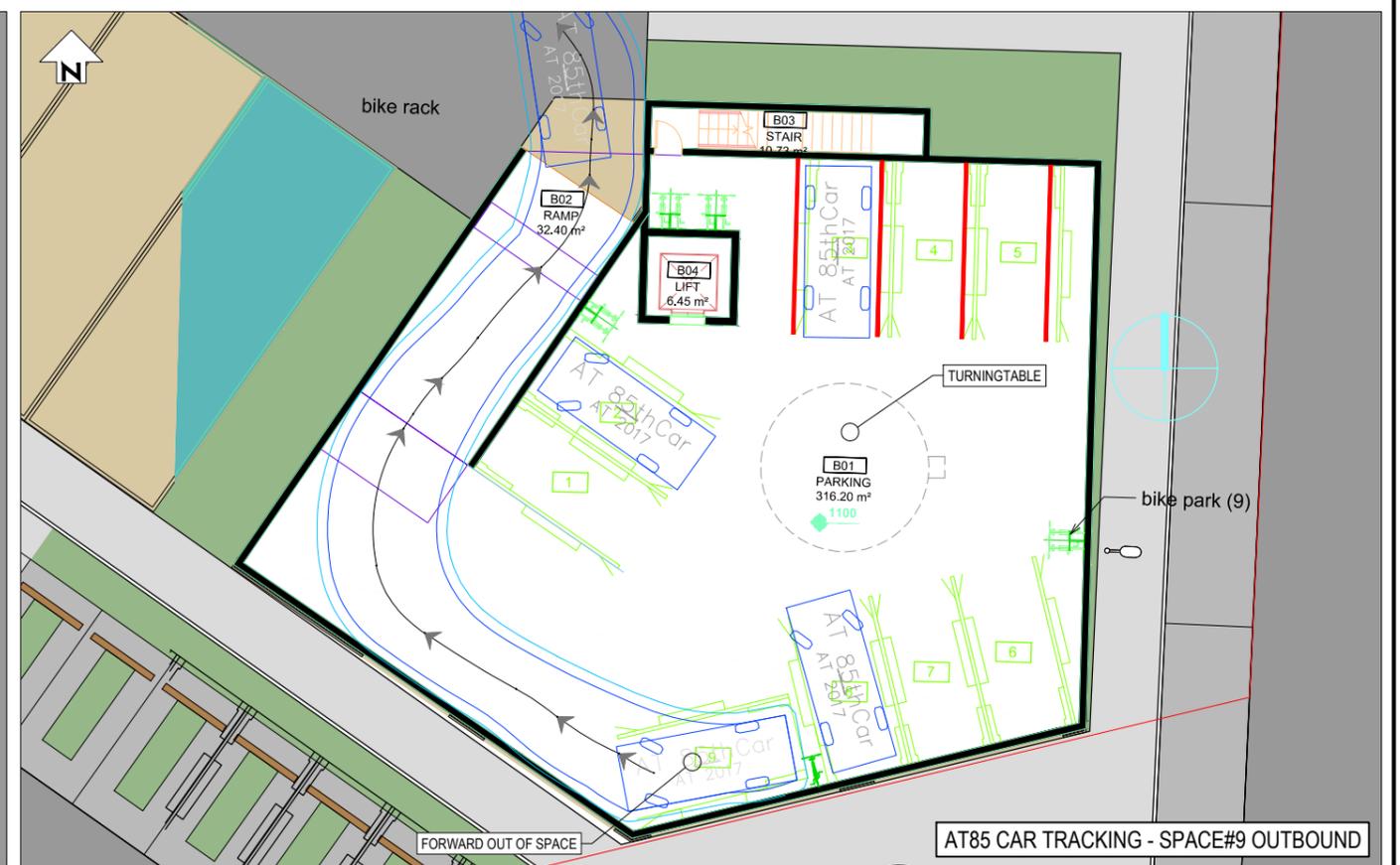
DO NOT SCALE - IF IN DOUBT, ASK

200 mm



ORIGINAL SIZE A1

SCALE 1:100



TRACKING VEHICLE

AT 85thCar

meters

Width : 1.87
Track : 1.86
Lock to Lock Time : 4.0
Steering Angle : 38.4

REV	DESCRIPTION	DATE	BY	CHK	APP
B	UPDATED PLAN: 839_PBA_210821_RC 370[F]- NORTH APARTMENT PLANS.dwg (21.08.21)	27.08.21	SP	GV	DM
A	839_pba_210430_north apartment basement.dwg (30.04.21)	04.05.21	SP	GV	DM

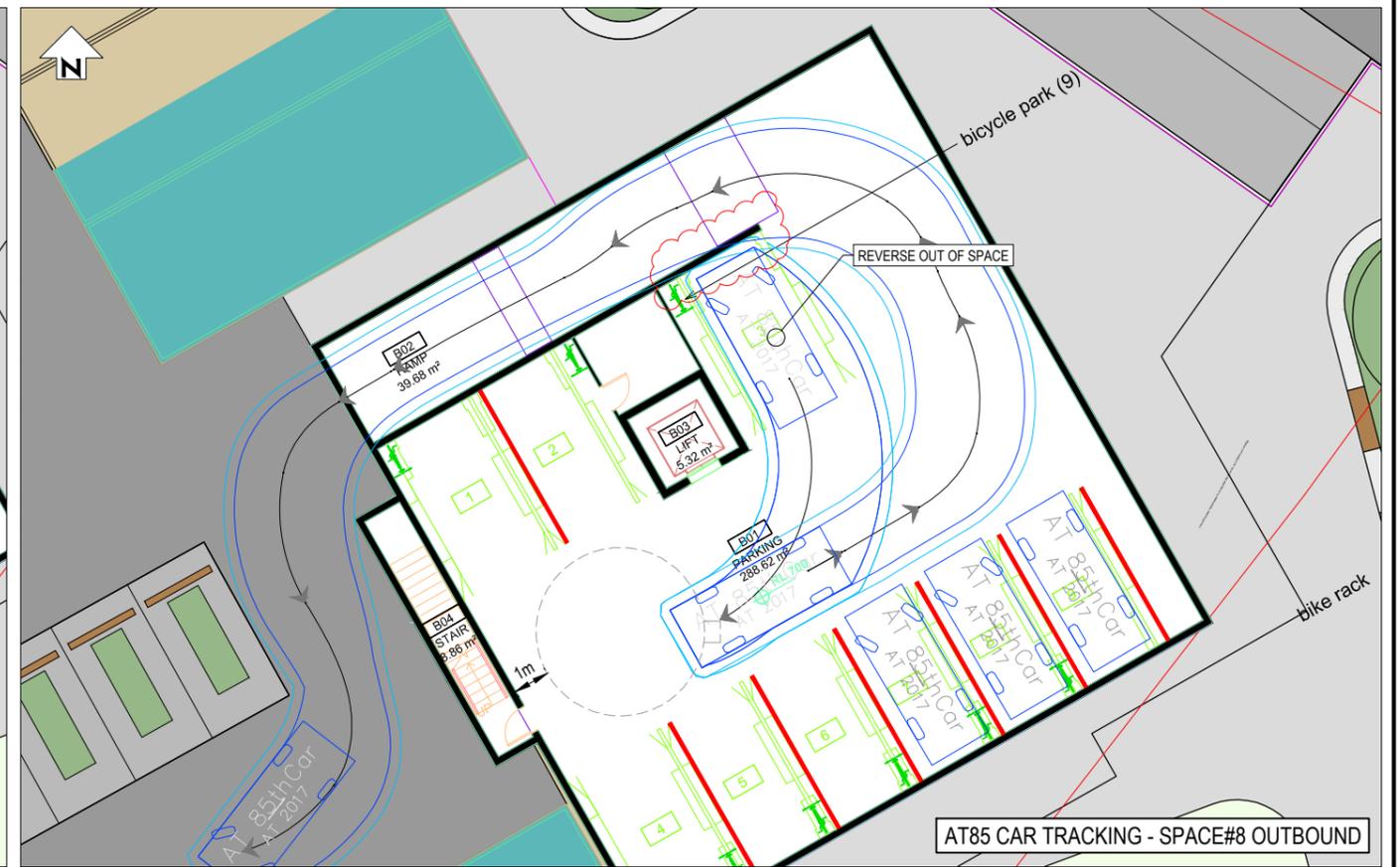
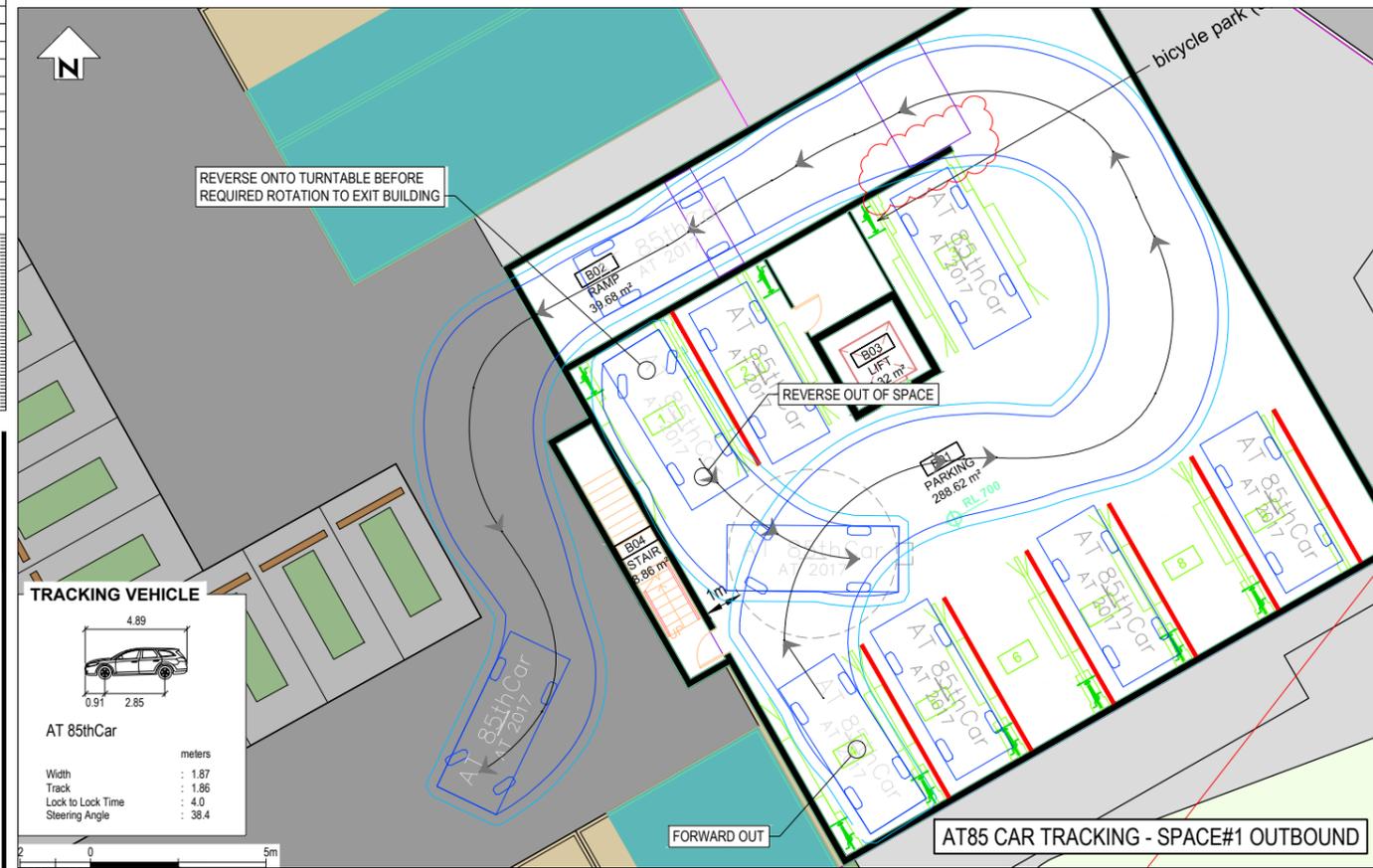
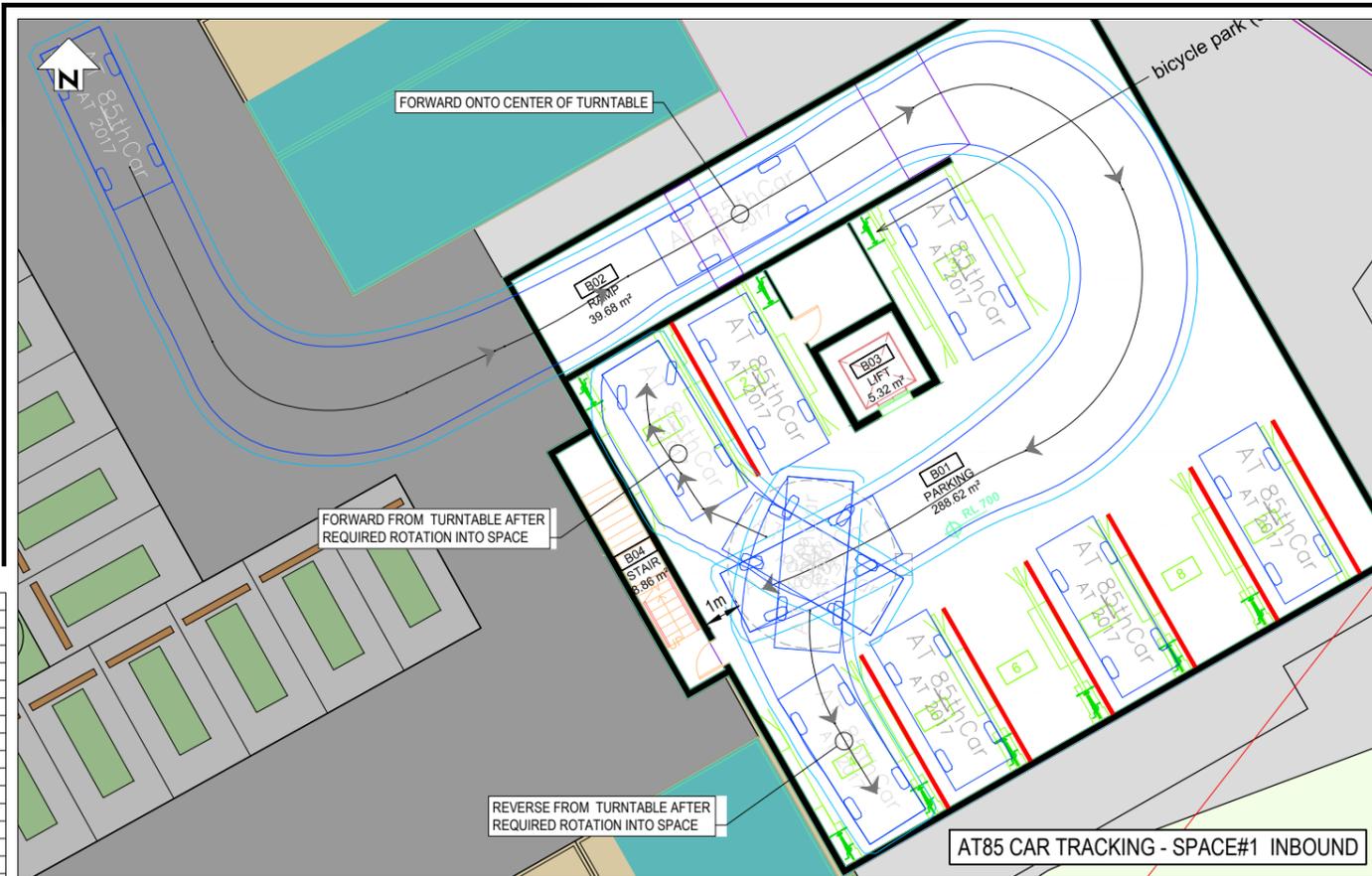
DESCRIPTION	DATE
SURVEYED	
DESIGNED	
DRAWN	S.PULETIUATO 04.05.21
CAD REVIEW	G.VAN ER WESTHUIZEN 27.08.21
DESIGN CHECK	G.VAN ER WESTHUIZEN 27.08.21
DESIGN REVIEW	D.McKENZIE 27.08.21
APPROVED	D.McKENZIE 27.08.21



BAYSWATER MARINA - PROPOSED DEVELOPMENT
APPENDIX B - NORTH APARTMENT

UPDATED APARTMENT BASEMENT TRACKING ASSESSMENT
SHEET 3 OF 6

Status Stamp	FINAL
Date Stamp	27.08.21
Scales	AS SHOWN
Drawing No.	310200192-01-001-SK015-3
Rev.	B



DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A1

TRACKING VEHICLE

AT 85thCar

Width	: 1.87
Track	: 1.86
Lock to Lock Time	: 4.0
Steering Angle	: 38.4

Scale: meters

SCALE 1:100

NOT FOR CONSTRUCTION

REV	DESCRIPTION	SP	GV	DM	DATE
B	UPDATED PLAN: 839_PBA_210821_RC 370[F]- NORTH APARTMENT PLANS.dwg (21.08.21)	SP	GV	DM	27.08.21
A	839_pba_210430_north apartment basement.dwg (30.04.21)	SP	GV	DM	04.05.21
	REVISIONS	DRN	CHK	APP	DATE

SURVEYED	DESIGNED	DRAWN	CAD REVIEW	DESIGN CHECK	DESIGN REVIEW	APPROVED	PROF REGISTRATION:
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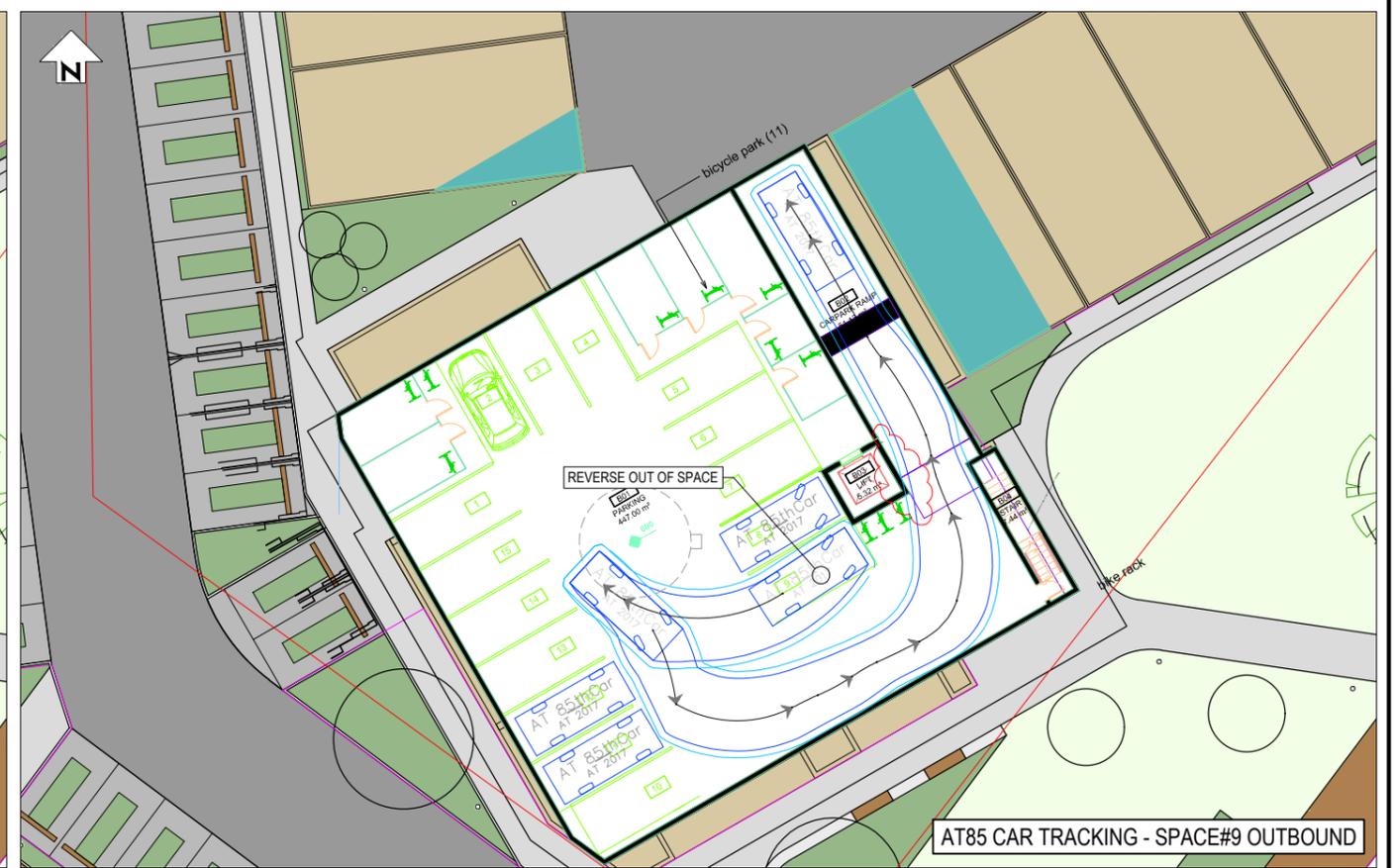
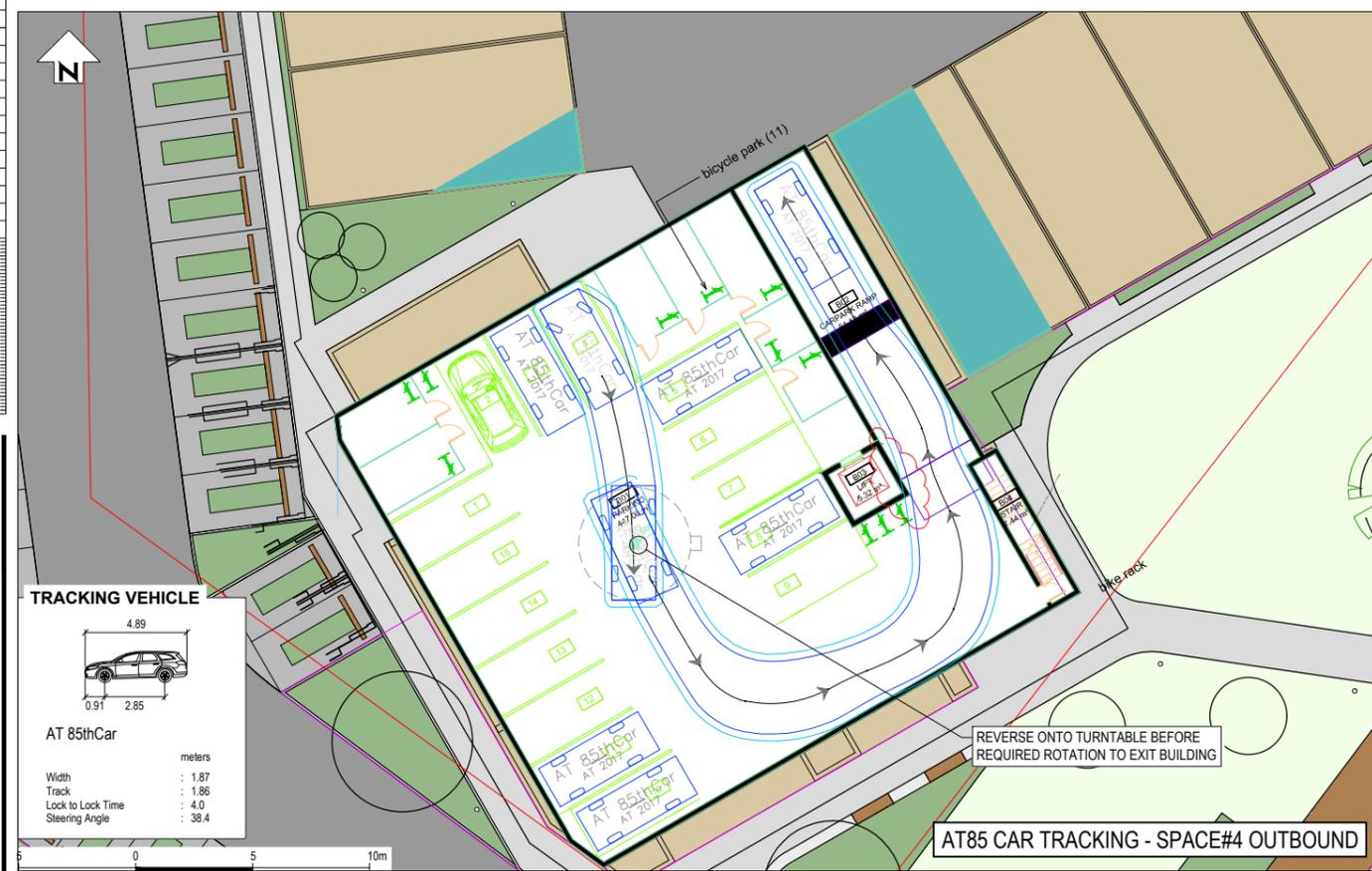
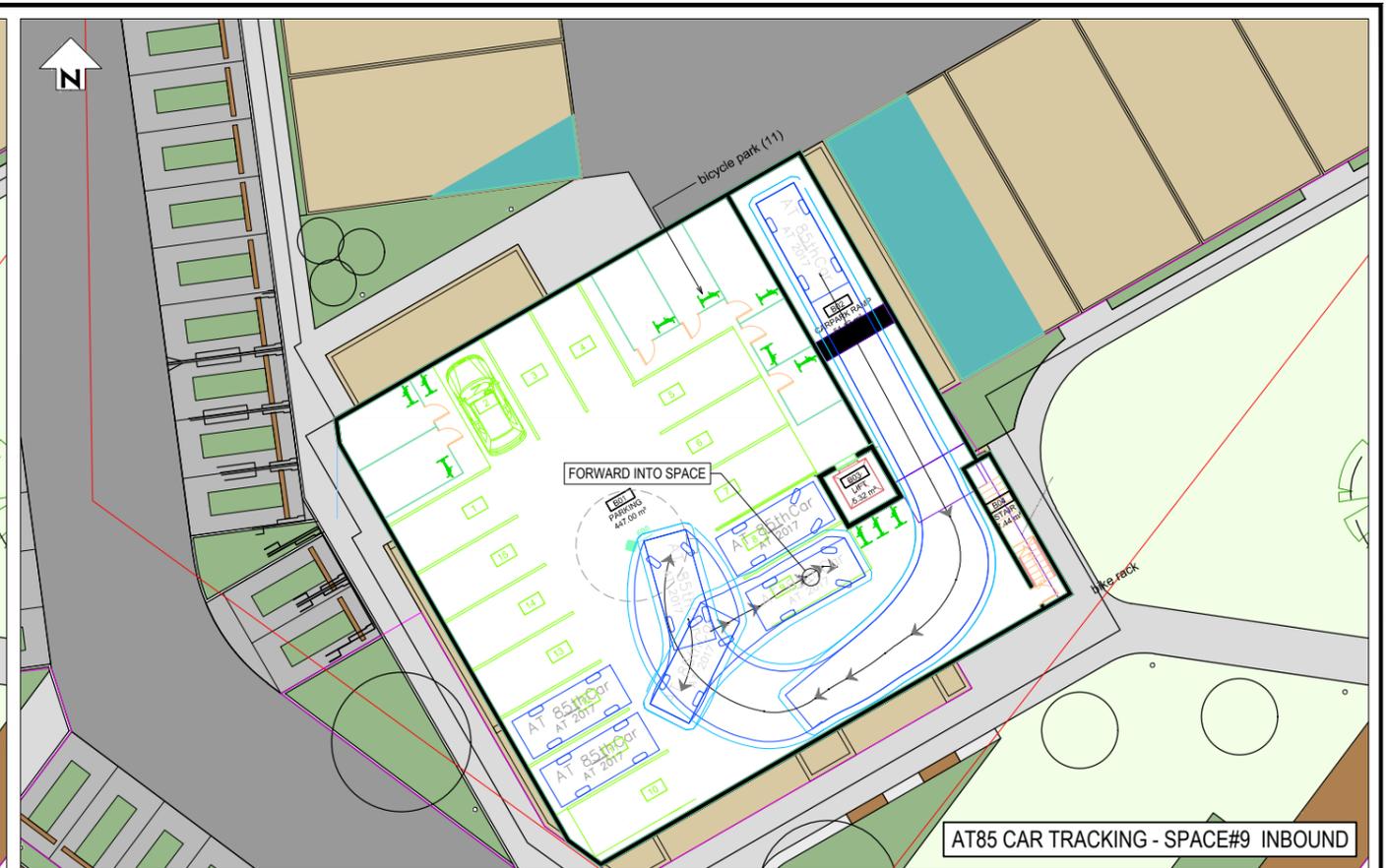
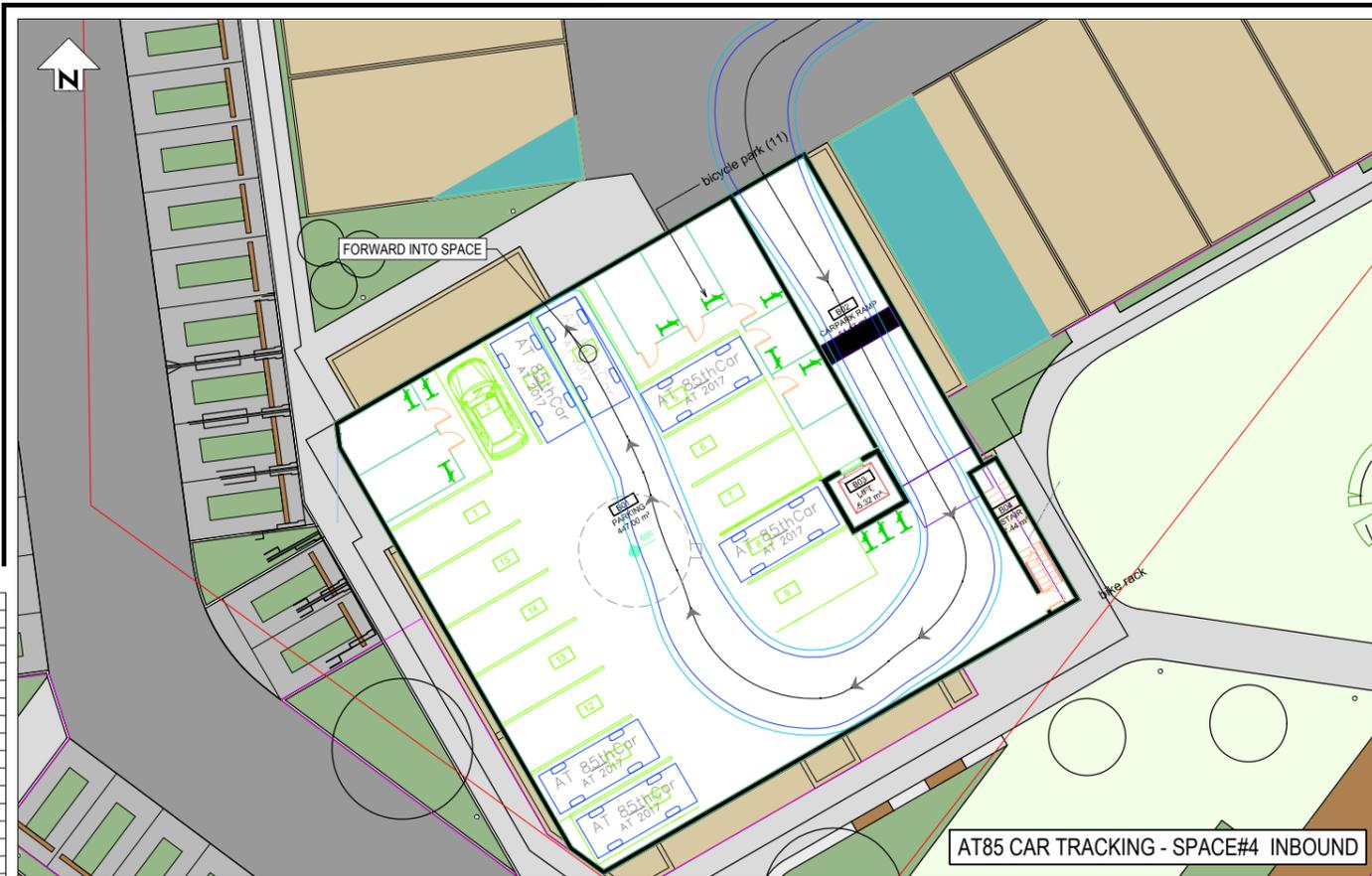


Client:

BAYSWATER MARINA - PROPOSED DEVELOPMENT
 APPENDIX B - CENTRAL APARTMENT

UPDATED APARTMENT BASEMENT TRACKING ASSESSMENT
 SHEET 4 OF 6

Status Stamp	FINAL
Date Stamp	27.08.21
Scales	AS SHOWN
Drawing No.	310200192-01-001-SK015-4
Rev	B



TRACKING VEHICLE

AT 85thCar

Width : 1.87
Track : 1.86
Lock to Lock Time : 4.0
Steering Angle : 38.4

meters

SCALE 1:150

NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	BY	CHK	APP
B	UPDATED PLAN: 839_PBA_210821_RC 370(F) - NORTH APARTMENT PLANS.dwg (21.08.21)	27.08.21	SP	GV	DM
A	839_pba_210430_north apartment basement.dwg (30.04.21)	04.05.21	SP	GV	DM
	REVISIONS		DRN	CHK	APP

STATUS	DATE	BY
SURVEYED		
DESIGNED		
DRAWN	04.05.21	S.PULETIUATO
CAD REVIEW	27.08.21	G.VAN ER WESTHUIZEN
DESIGN CHECK	27.08.21	G.VAN ER WESTHUIZEN
DESIGN REVIEW	27.08.21	D.McKENZIE
APPROVED	27.08.21	D.McKENZIE
PROF REGISTRATION:		

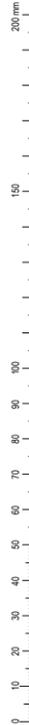


BAYSWATER MARINA - PROPOSED DEVELOPMENT
APPENDIX B - SOUTH APARTMENT

UPDATED APARTMENT BASEMENT TRACKING ASSESSMENT
SHEET 5 OF 6

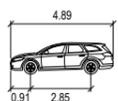
Status Stamp	FINAL
Date Stamp	27.08.21
Scales	AS SHOWN
Drawing No.	310200192-01-001-SK015-5
Rev.	B

DO NOT SCALE - IF IN DOUBT, ASK



ORIGINAL SIZE A1

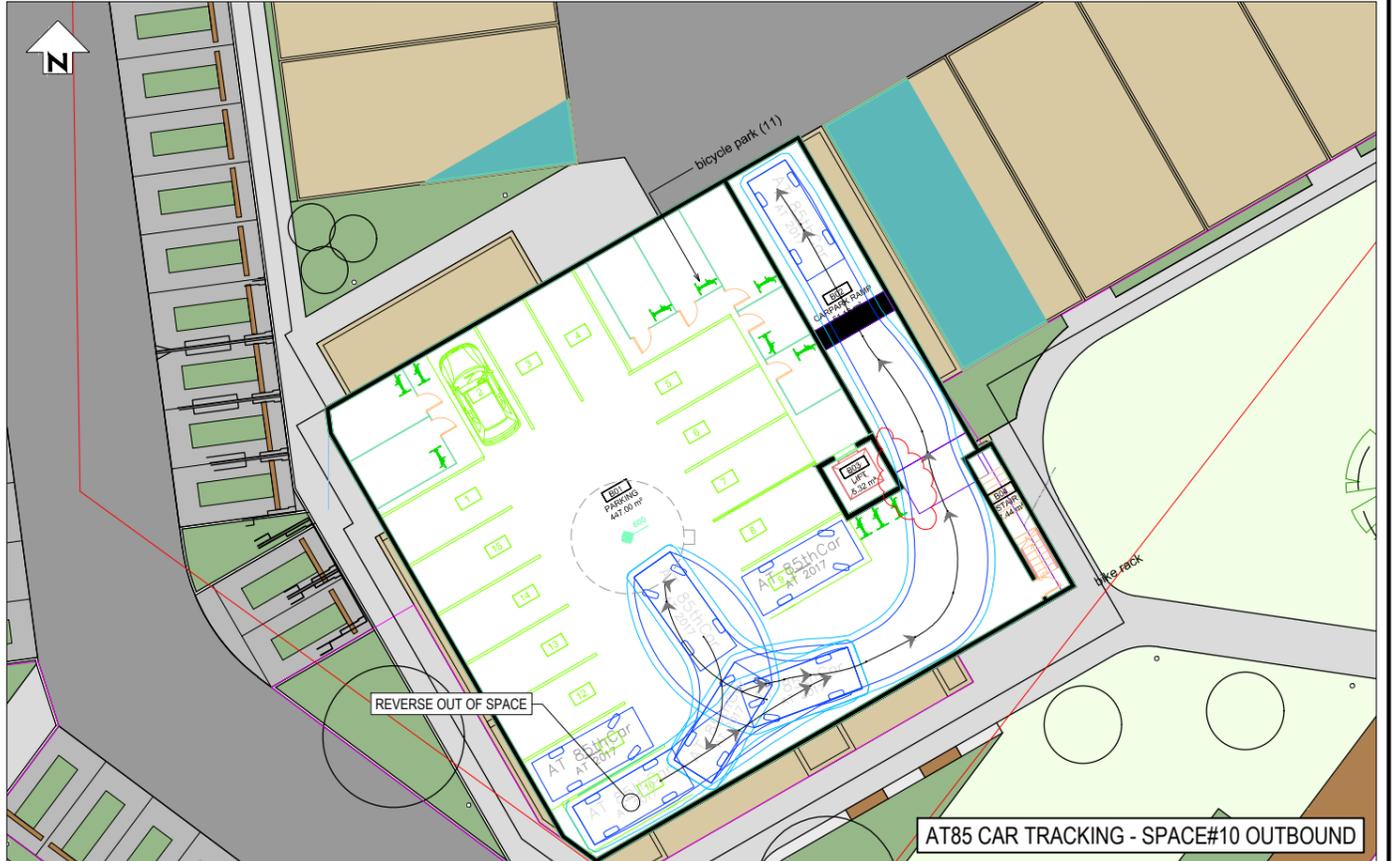
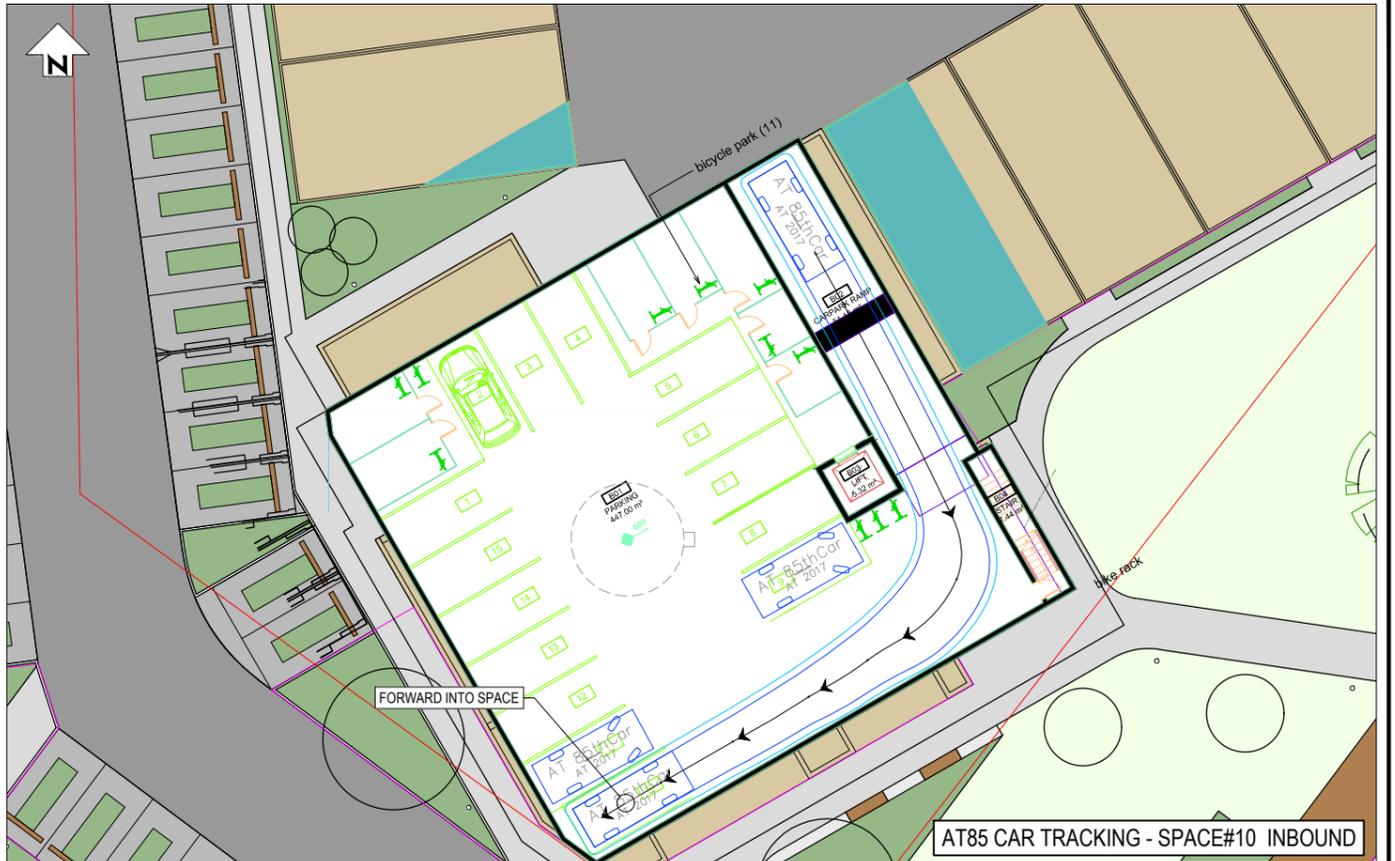
TRACKING VEHICLE



AT 85thCar
meters
Width : 1.87
Track : 1.86
Lock to Lock Time : 4.0
Steering Angle : 38.4



SCALE 1:150



NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRN	CHK	APP
B	UPDATED PLAN: 839_PBA_210821_RC 370[F]- NORTH APARTMENT PLANS.dwg (21.08.21)	27.08.21	SP	GV	DM
A	839_pba_210430_north apartment basement.dwg (30.04.21)	04.05.21	SP	GV	DM

SURVEYED	DESIGNED	DRAWN	CAD REVIEW	DESIGN CHECK	DESIGN REVIEW	APPROVED
	S.PULETIUATO		G.VAN ER WESTHUIZEN	G.VAN ER WESTHUIZEN	D.McKENZIE	D.McKENZIE
		04.05.21	27.08.21	27.08.21	27.08.21	27.08.21



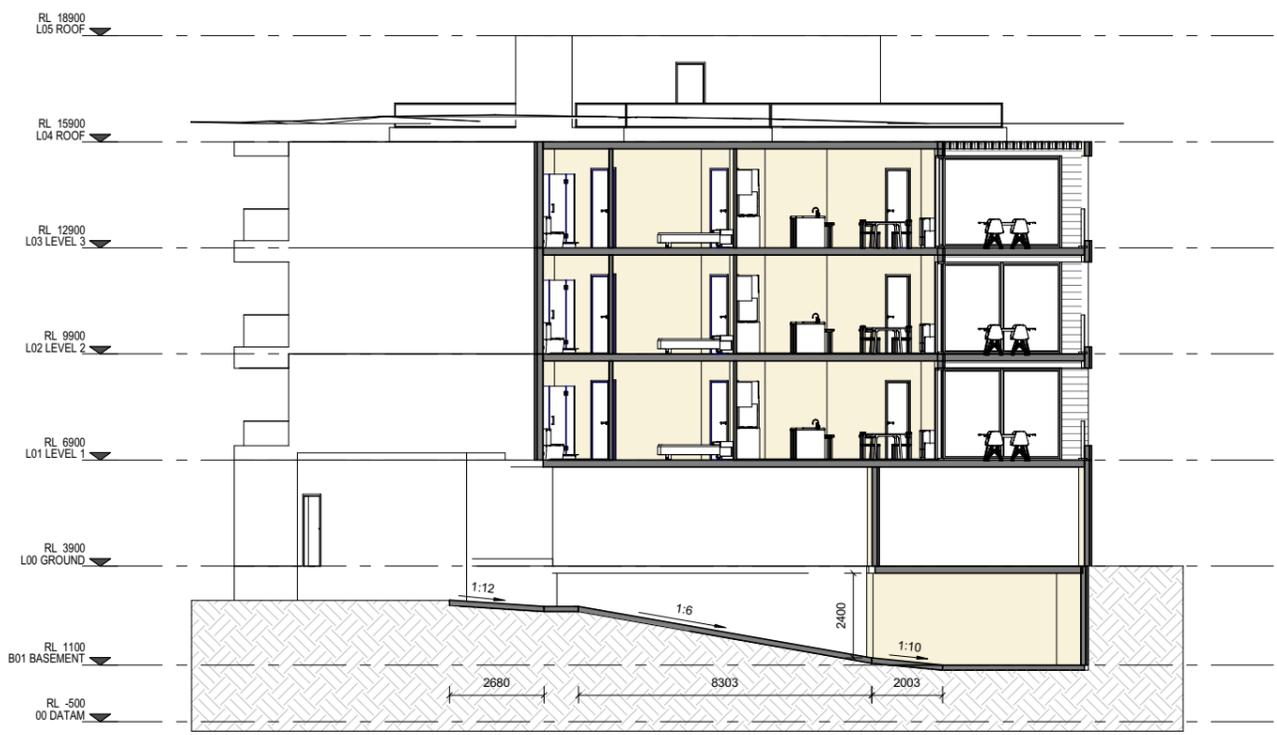
BAYSWATER MARINA - PROPOSED DEVELOPMENT
APPENDIX B - SOUTH APARTMENT

UPDATED APARTMENT BASEMENT TRACKING ASSESSMENT
SHEET 6 OF 6

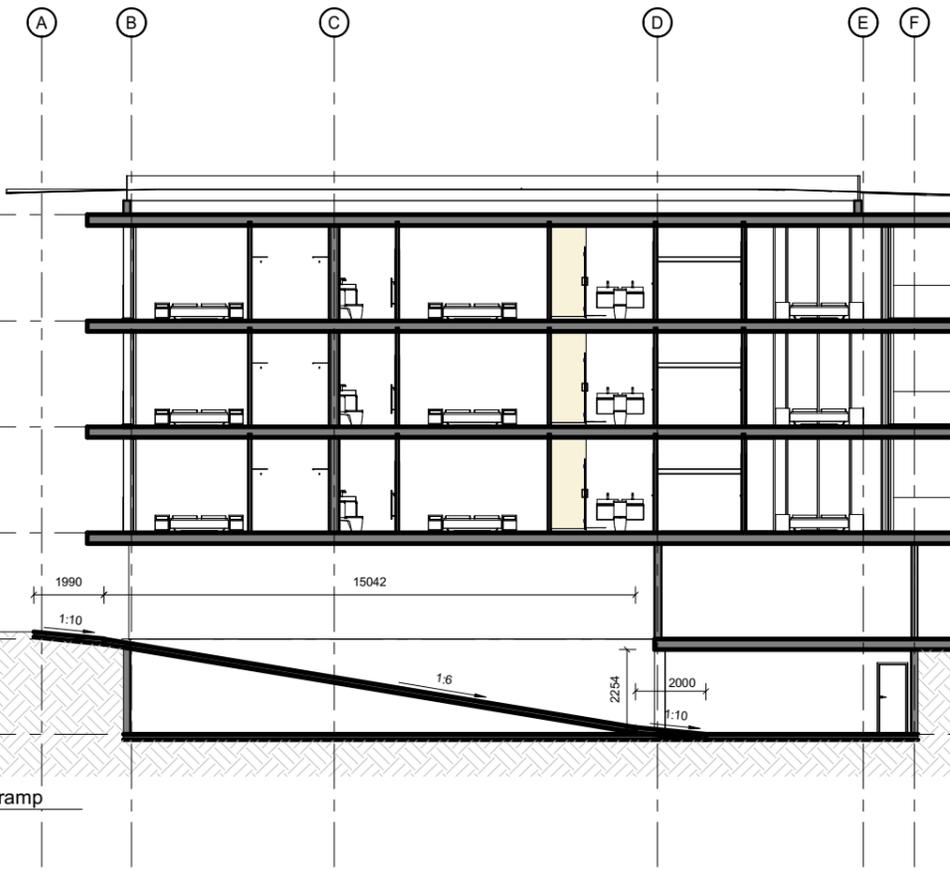
Status Stamp	FINAL
Date Stamp	27.08.21
Scales	AS SHOWN
Drawing No.	310200192-01-001-SK015-6
Rev.	B

Appendix C Vehicle Ramp Sections

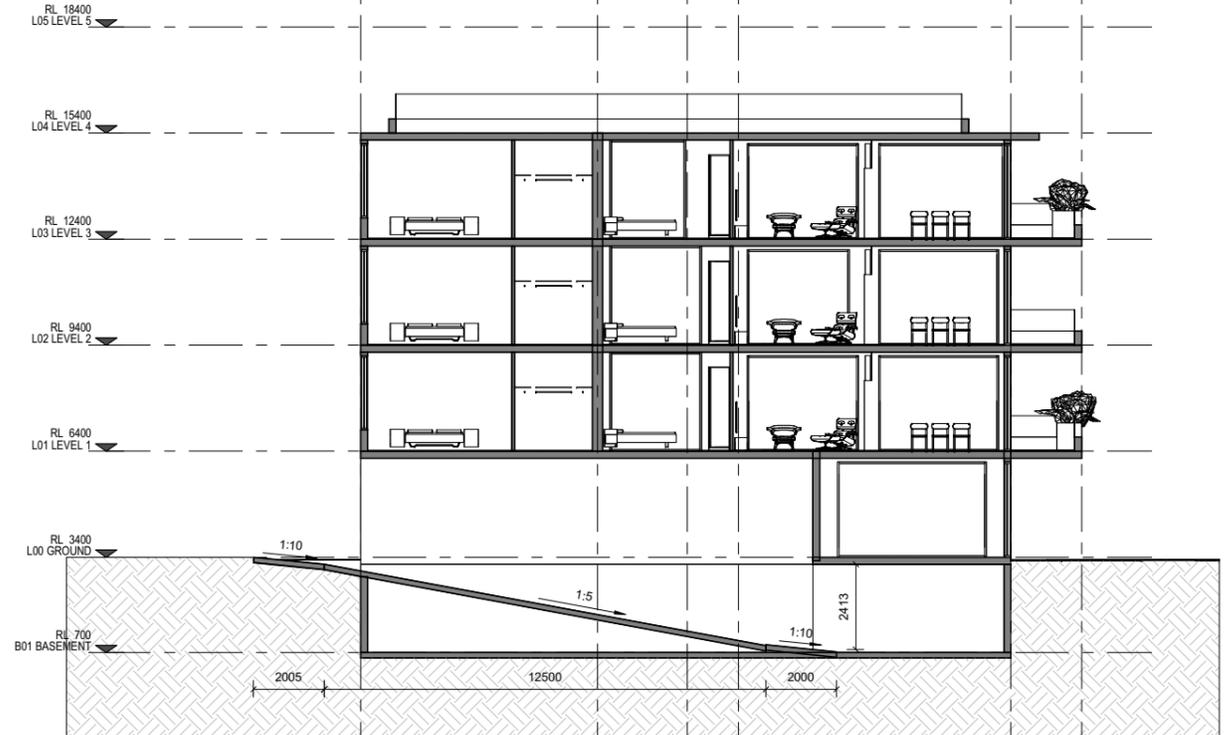
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2 north apartment ramp
RC 370 1:100



3 south apartment ramp
1:100



1 central apartment ramp
RC 460 1:100

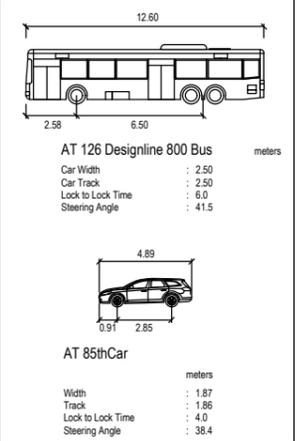
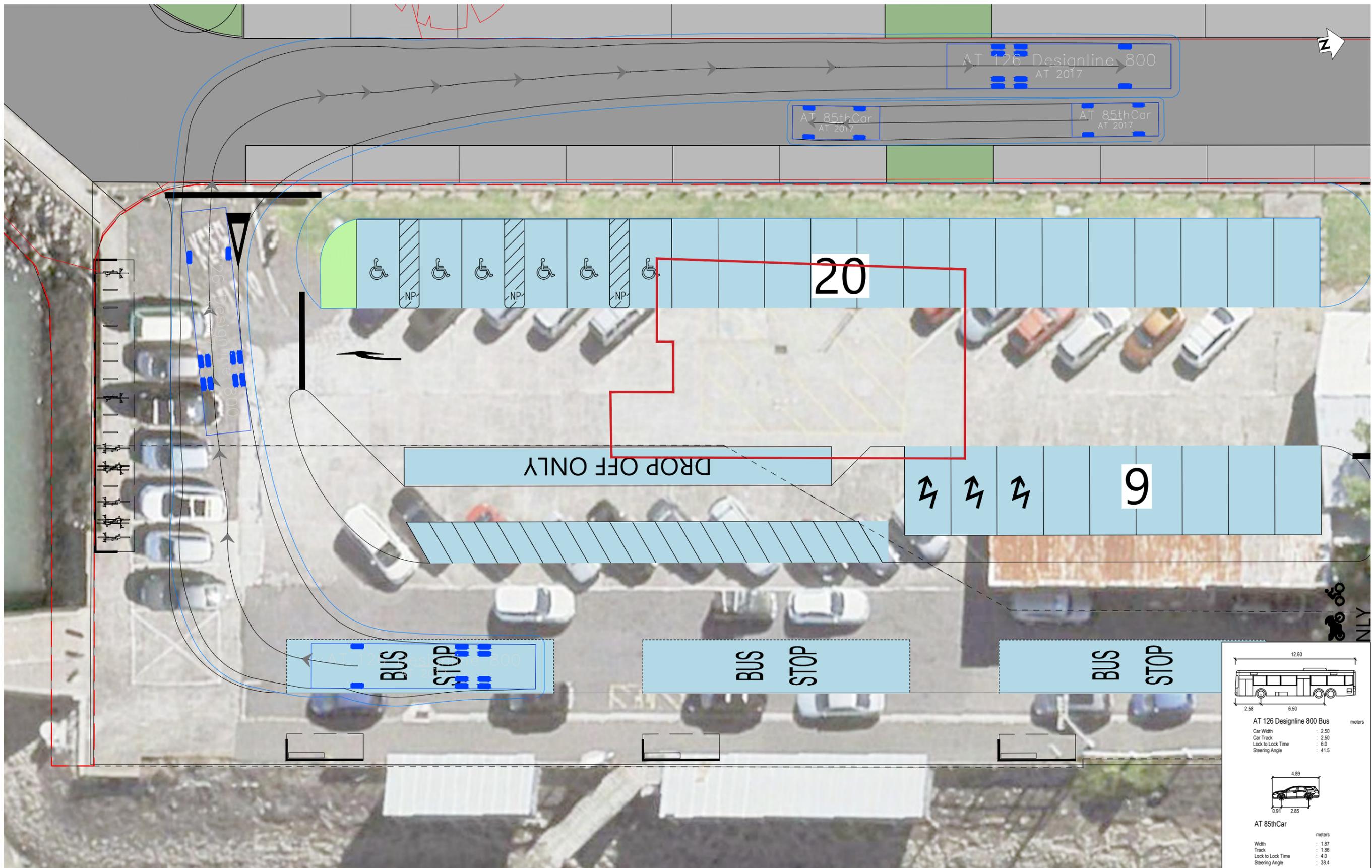
VEHICLE RAMP SECTIONS | 300 ELEVATIONS & SECTIONS |

Appendix D Sir Peter Blake Parade Extension/ Cross Street Intersection

Appendix E AT Bus Right-Turn Tracking

ORIGINAL SIZE A1

DO NOT SCALE - IF IN DOUBT, ASK



NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	APP	CHK	DRN
B	UPDATED BASE: A15265A_Base.dwg (20.08.21)	27.08.21	DM	GV	SP
A	BASED ON A15134A2B (FRANTA 05/12/2017) OPTION 1A	16.09.20	DM	SV	LS

STATUS	DATE	BY
SURVEYED		
DESIGNED		
DRAWN	04.05.21	S.PULETIUATO
CAD REVIEW	27.08.21	G.VAN ER WESTHUIZEN
DESIGN CHECK	27.08.21	G.VAN ER WESTHUIZEN
DESIGN REVIEW	27.08.21	D.McKENZIE
APPROVED	27.08.21	D.McKENZIE



Client

BAYSWATER MARINA - PROPOSED DEVELOPMENT
APPENDIX E

AT BUS PROVISION
 AT BUS RIGHT TURN TRACKING

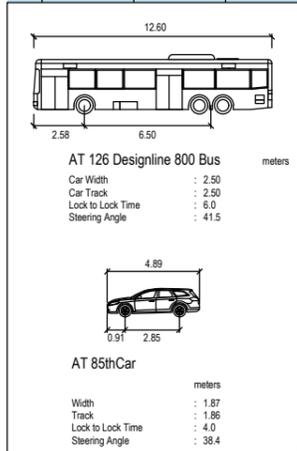
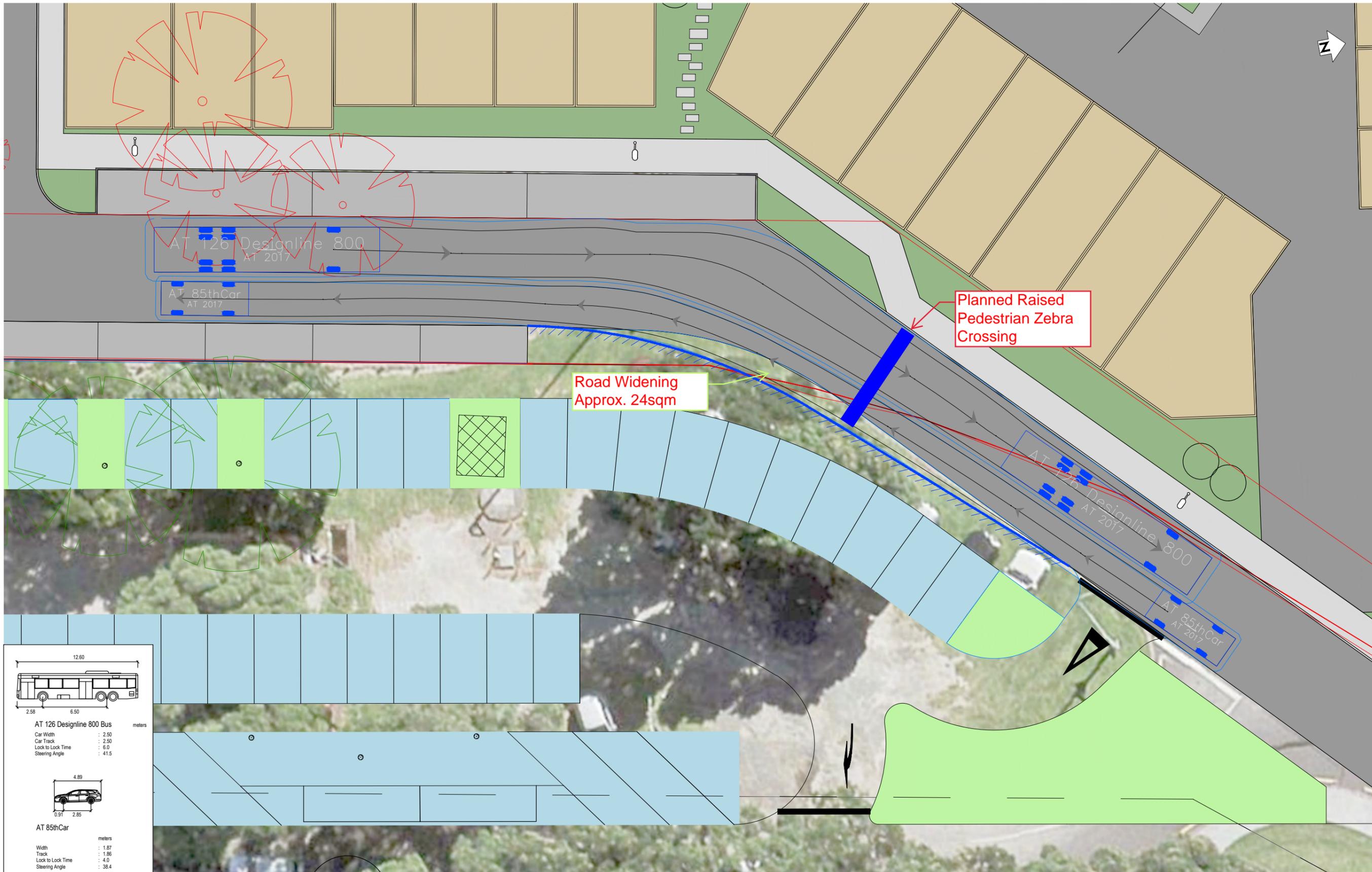
Status Stamp	FINAL
Date Stamp	27.08.21
Scales	NA
Drawing No.	310200192-01-001-SK002
Rev.	B

Appendix F Sir Peter Blake Parade Drive Vehicle Tracking

DO NOT SCALE - IF IN DOUBT, ASK

200 mm
180
160
140
120
100
80
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40
20
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ORIGINAL SIZE A1



NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	BY	CHK	APP
B	UPDATED BASE: A15265A_Base.dwg (20.08.21)	27.08.21	SP	GV	DM
A	BASED ON A15134A2B (FRANTA 05/12/2017), OPTION 1A	16.09.20	LS	SV	DM

STATUS	DATE	BY
SURVEYED		
DESIGNED		
DRAWN	04.05.21	S.PULETIUATO
CAD REVIEW	27.08.21	G.VAN ER WESTHUIZEN
DESIGN CHECK	27.08.21	G.VAN ER WESTHUIZEN
DESIGN REVIEW	27.08.21	D.McKENZIE
APPROVED	27.08.21	D.McKENZIE



BAYSWATER MARINA - PROPOSED DEVELOPMENT
APPENDIX F

AT BUS PROVISION
SIR PETER BLAKE PARADE DRIVE VEHICLE TRACKING

Status Stamp	FINAL
Date Stamp	27.08.21
Scales	NA
Drawing No.	310200192-01-001-SK003
Rev.	B

Appendix G Austroads Pedestrian Facility Selection Tool results

x



Australasian Pedestrian Crossing Facility Selection Tool [2.2.1]



HELP

Choose File No file chosen

Load a CSV File

OR fill in the form below

Project details

Project name: Bayswater Marina

Project location: Bayswater

Option/assessment number: 20-08-2021

Date of assessment:

Site information

Jurisdiction: New Zealand

Midblock or intersection?: Midblock

Existing facility: Median refuge

Crash information

Use crash model or crash history? Model

Physical/environmental/Operational variables

Number of traffic directions: Two

Centre treatment: No treatment

Parking/shoulder: No

Pedestrian visibility: 90 metres

Posted speed limit: 50 km/h

Safe and Appropriate Speed: 30 km/h

Approach speed (85th percentile): 50 km/h

Traffic volume (AADT): 5100 veh/day

Peak sensitive pedestrian volume: 5 ped/hr

Peak non-sensitive pedestrian volume: 50 ped/hr

Estimated daily pedestrian volume: 200 ped/day

Average vehicle occupancy: 1.3 pers/veh

Direction 1

Flow: Left to Right

Flow type: Interrupted

Peak vehicle volume: 350 veh/hr

Traffic lanes: 1

Crossing distance: 4 metres

Direction 2

Flow: Right to Left

Flow type: Interrupted

Peak vehicle volume: 350 veh/hr

Traffic lanes: 1

Crossing distance: 4 metres

Layout diagram

Site characteristics

Exposed crossing distance: 4 + 4 = **8 metres**

Est. pedestrian crossing time (exposed): **6.8 seconds**

Total peak hourly vehicle flow: 350 + 350 = **700 veh/hr**

Model parameters [Show/Hide](#)

Walk speed of average sensitive pedestrians: m/s

Walk speed of average non-sensitive pedestrians: m/s

Average cost of pedestrian crashes: ?

Vehicle conversion factor: ?

Economic assessment parameters

Evaluation days per annum:

Project lifetime: years

Discount rate: %

Economic update factors ?

Base date:

Update factor to current date:

Travel time costs/savings:

Vehicle operating costs/savings:

Crash costs/savings:

Expected crash reduction factors ?

Platform	Kerb extensions	Median refuge	Kerb extensions with median refuge	Zebra only ?	Zebra with platform	Zebra with kerb extensions	Zebra with platform and kerb extensions	Zebra with median refuge	Zebra with kerb extensions and median refuge	Signals	Signals with kerb extensions	Grade separation
<input type="text" value="20"/> %	<input type="text" value="35"/> %	<input type="text" value="45"/> %	<input type="text" value="65"/> %	<input type="text" value="0"/> %	<input type="text" value="20"/> %	<input type="text" value="35"/> %	<input type="text" value="63"/> %	<input type="text" value="45"/> %	<input type="text" value="65"/> %	<input type="text" value="45"/> %	<input type="text" value="45"/> %	<input type="text" value="85"/> %

Calculate feasibility

[View the facility feasibility process \(PDF\) here](#)

Automatically calculate when inputs are updated? ?

Feasible facilities

Suitable for site?	Built parameters	Construction cost	Annual maintenance cost	Show in final output? <small>Select all/none/feasible</small>
No facility	N/a	<input type="text" value="\$ 0"/>	<input type="text" value="\$ 0"/>	<input checked="" type="checkbox"/>
Platform	<input checked="" type="checkbox"/> Yes	Vehicle negotiation speed:		<input checked="" type="checkbox"/>

			30 km/h		\$ 0			
Kerb extensions	Yes		Total crossing distance: 7 metres		\$ 0			✓
Median refuge *	Yes		Direction 1 crossing distance: 4 metres Median refuge width: 1.8 metres Direction 2 crossing distance: 4 metres		\$ 0			✓
Kerb extensions with median refuge	Yes		Direction 1 crossing distance: 3.5 metres Median refuge width: 1.8 metres Direction 2 crossing distance: 3.5 metres		\$ 0			✓
Zebra only	Yes		No parameters		\$ 0			✓
Zebra with platform ?	Yes		Applies vehicle negotiation speed from Platform above		\$ 0			✓
Zebra with kerb extensions	Yes		Applies total crossing distance from Kerb extensions above		\$ 0			✓
Zebra with platform and kerb extensions ?	Yes		Applies vehicle negotiation speed from Platform and total crossing distance from Kerb extensions above		\$ 0			✓
Zebra with median refuge	Yes		Applies distances and refuge width from Median refuge above		\$ 0			✓
Zebra with kerb extensions and median refuge	Yes		Applies distances and refuge width from Kerb extensions with median refuge above		\$ 0			✓
Signals	Yes		Signals activated by pedestrian call button? Yes Delay before green pedestrian phase: 8 seconds Pedestrian walk + clearance time:		\$ 0			✓

			Pedestrian platoon size: <input type="text" value="16"/> seconds <input type="text" value="1"/> peds		
Signals with kerb extensions	✔ Yes		Applies parameters from Signals above, plus: Total crossing distance: <input type="text" value="7"/> metres	<input type="text" value="0"/> \$	<input checked="" type="checkbox"/>
Grade separation	! Maybe Max. of approach/posted speed < 75km/h	No parameters		<input type="text" value="0"/> \$	<input checked="" type="checkbox"/>

Calculate assessment

Facility assessment

	Suitable for site?	Pedestrian delay	Vehicle delay	Predicted crash rate	CSD	ASD	SISD
Median refuge *	Yes	2 sec	0 sec	0.01 /year	56 m	48 m	90 m
No facility	N/a	7 sec	0 sec	0.02 /year	111 m	48 m	90 m
Platform	Yes	7 sec	0 sec	0.02 /year	111 m	48 m	90 m
Kerb extensions	Yes	5 sec	0 sec	0.02 /year	97 m	48 m	90 m
Kerb extensions with median refuge	Yes	2 sec	0 sec	0.01 /year	49 m	48 m	90 m
Zebra only	Yes	2 sec	1 sec	0.02 /year	111 m	48 m	90 m
Zebra with platform	Yes	2 sec	1 sec	0.02 /year	111 m	48 m	90 m
Zebra with kerb extensions	Yes	2 sec	1 sec	0.02 /year	97 m	48 m	90 m
Zebra with platform and kerb extensions	Yes	2 sec	1 sec	0.01 /year	97 m	48 m	90 m
Zebra with median refuge	Yes	2 sec	1 sec	0.01 /year	56 m	48 m	90 m
Zebra with kerb extensions	Yes	2 sec	1 sec	0.01 /year	49 m	48 m	90 m

Zebra with median refuge	A	B	B	\$ 6,000	\$ 2,000	\$ 74,000	-\$ 74,000	\$ 79,000	\$ 0	-\$ 72,000	Zero construction cost
Zebra with kerb extensions and median refuge	A	B	B	\$ 6,000	\$ 2,000	\$ 74,000	-\$ 74,000	\$ 50,000	\$ 29,000	-\$ 43,000	Zero construction cost
Signals	B	B	B	\$ 27,000	-\$ 20,000	\$ 223,000	-\$ 223,000	\$ 79,000	\$ 0	-\$ 243,000	Zero construction cost
Signals with kerb extensions	B	B	B	\$ 27,000	-\$ 20,000	\$ 223,000	-\$ 223,000	\$ 79,000	\$ 0	-\$ 243,000	Zero construction cost
Grade separation			A	\$ 0	\$ 7,000	\$ 0	\$ 0	\$ 21,000	\$ 57,000	\$ 65,000	Zero construction cost

Notes

✔
File saved
✘

Bayswater Marina_20-08-2021.csv has been saved to your default download directory.

↻ Reset all Fields

Bayswater Marina_20-08-2021.csv 📄 Export CSV File

⬅ [Back to top](#)

Disclaimer

The Australasian Pedestrian Crossing Facility Selection Web Tool ("the tool") is freely provided by [Austroads](#) and is intended to help practitioners select an appropriate pedestrian crossing facility for a particular location. The tool is based on literature, and analytical and behavioural research coupled with a number of mathematical models. Its development is detailed in the Austroads report [Development of the Australasian Pedestrian Facility Selection Tool](#).

As with all mathematical models care must be taken to understand input limitations and background assumptions when interpreting the outputs. The tool does not replace professional engineering or planning advice and Austroads does not accept any responsibility regarding the tool. While we have endeavoured to ensure the information output by the tool is appropriate, we make no representations or warranties of any kind about the completeness, accuracy, reliability, suitability or availability with respect to the outputs. Any reliance you place on such information is strictly at your own risk and it is your responsibility to check all information output by the tool.

The tool should not be used to inform decision making in isolation when considering the form and location of pedestrian crossing facilities. Engineering judgement is required to consider the economic and other outputs produced by the tool alongside safety, mobility, social and environmental factors that are considered appropriate by the practitioner.

Version: [2.2.1](#)

CREATING COMMUNITIES

Communities are fundamental. Whether around the corner or across the globe, they provide a foundation, a sense of belonging. That's why at Stantec, we always **design with community in mind**.

We care about the communities we serve—because they're our communities too. We're designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe.

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