

Item	Status	Specialist	AT comment 23/05/19	Applicant response 09/07/2019
1	Clarification request	Flow Transport	Please confirm that all structures needed to support final site levels, such as MSE walls and retaining walls, are located outside of the legal road.	All structures located outside of legal roads.
2	Clarification request	Flow Transport	The Transport Assessment provided by Beca identifies a need for kerb and channel on the northern side of Woodlands Park Drive to assist in reducing potential conflict between oncoming vehicles with the additional and more regular turning movements at the site accesses, however this is not reflected in the AEE or the Engineering Drawings. Please confirm inclusion of the kerb and channel into the design	It is considered that this level of design detail can be satisfactorily addressed through the later design development, in parallel with the preparation of the CTMP. This is more clearly identified in Section 4.3 of the Draft CTMP. The design would need to be developed with consideration to the current road reserve available.
3	Information request	Flow Transport	During pre-app engagement Auckland Transport requested that the application included heavy vehicle tracking for Scenic Drive, due to the existing narrow carriageway and potential for increased frequency of conflicts between trucks and oncoming vehicles. Please provide tracking for horizontal curves on Scenic Drive along the proposed haulage route, for the largest vehicle expected to access the site as part of earthworks activity	This section of Scenic Drive has limited useful aerial imagery due to existing tree canopies obstructing a clear view of the road kerblines and centreline. There has also been recent localised widening as part of the recent AT works, not reflected in the aerial imagery. This would make it very difficult to provide conclusive vehicle tracking. Instead a vehicle demonstration is being arranged and the outcomes will be to AC/AT. The demonstration will also cover other relevant sections of the recommended truck routes.
4	Condition requested	Flow Transport	The Transport Assessment provided by Beca identifies the need to undertake vegetation trimming within private property to provide sufficient sight lines from the vehicle crossing to the WTP. Flow request that a condition is included, refer condition 46(r).  Additionally the OPW should address how it will be managed on an ongoing basis once construction is complete to ensure the sightlines are not compromised	Text has been updated in the Transport Assessment, Section 4.2.2. From a transport perspective, the condition is agreed in principle. However, the final wording of the condition needs to be reviewed by Watercare and the planning/legal teams.
5	Condition requested	Flow Transport	During pre-app engagement Auckland Transport identified a preference for using Titirangi Road over Atkinson Road route. This was due to the location of schools and childcares, residential nature, presence of traffic calming devices, and high risk rating for vulnerable road users. Flow request a consent condition that identifies Titirangi Road as a preferred haulage route over Atkinson Road. Refer condition 42(c)	The TAR and Draft CTMP discuss that Titirangi route should be used as the first choice, however, the additional routes are identified as possible alternatives. This would particularly be during the busier period of construction (with the exception of the start and end of the school day) the use of the Atkinson Road route (one-way) will help alleviate the impacts of two-way movements on Titirangi Road. It is considered this is better identified as a 'measure' in conditions, rather than an 'objective'. Consistent with a similar approach of the 36th Americas Cup Base Infrastructure consents. From a transport perspective, the condition is agreed in principle. However, the final wording of the condition needs to be reviewed by Watercare and the planning/legal teams.

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6	Condition requested	Flow Transport	Consistent with the Transport assessment provided by Beca, Flow request a condition restricting heavy vehicle movements on Atkinson Road and Woodland Road (for the Parua route) during school pick up and drop off time. Refer to Condition 42(b) and 46(j) and 46(k).	As identified in the TAR and Draft CTMP, the management measures associated with Atkinson Road route involve preventing heavy trucks using this route during the periods around the start and end of the school day. As such, bringing this forward into a condition would be consistent with the Draft CTMP. However, given heavy vehicles may be delayed arriving at the site due to wider network influences, then it is considered that this should prevent, 'as far as practicable', heavy vehicles using the Atkinson Road route at those times. It is also considered this is better identified as a 'measure' in conditions, rather than an 'objective'. Consistent with a similar approach of the 36th Americas Cup Base Infrastructure consents. From a transport perspective, the condition is agreed in principle. However, the final wording of the condition needs to be reviewed by Watercare and the planning/legal teams.
7	Condition requested	Flow Transport	As identified in the Transport Assessment by Beca, the existing Woodlands Park Road / Scenic Drive intersection has restricted visibility for HCV turning right into Scenic Drive. Noting that this is an existing, and that AT and Watercare are currently discussing potential works to improve this, Flow request that temporary improvements considered as part of the CTMP. Refer Condition 46(m)	It is considered that the Site Specific Traffic Management Plans (SSTMPs) will deal with this. The Transport Assessment Report (Section 4.1.5) and draft CTMP include reference to this matter. From a transport perspective, the condition is agreed in principle. However, the final wording of the condition needs to be reviewed by Watercare and the planning/legal teams.
8	Condition requested	Flow Transport	Consistent with the Transport Assessment provided by Beca, we request a condition restricting construction parking on surrounding streets. Refer Condition 46(g).	The site parking plan has been referenced in the Transport Assessment Report (Section 4.1.8) and the draft CTMP. From a transport perspective, the condition is agreed in principle. However, the final wording of the condition needs to be reviewed by Watercare and the planning/legal teams.
9	Condition requested	Flow Transport	Flow recommend replacing proposed condition 46 with more robust consent conditions relating to damage to AT assets. We have included 3 conditions relating to a pre-start meeting, pre-start inspection, progress inspections, and remedial works.	From a transport perspective, the condition is agreed in principle. However, the final wording of the condition needs to be reviewed by Watercare and the planning/legal teams.
10	Condition requested	Flow Transport	Consistent with AT's pre-app feedback, and Beca's Transport Assessment, a pavement impact assessment should be undertaken prior to works commencing. Flow have provided a draft consent condition.	T&T to discuss with Bruce Chappel (Beca)
11	Condition requested	Flow Transport	As identified in the Transport Assessment provided by Beca some intersections (such as the Kaurilands/Atkinson Road intersection) may require minor works to accommodate truck and trailer movements. Flow request that vehicle tracking assessments and any mitigation works are assessed as part of the CTMP. Refer condition 46(m)	As per Item 3, a vehicle demonstration is being arranged.
12	Suggestion / FYI	Flow Transport	Any utilities located within the legal road shall be designed in accordance with the National Code of Practice for Utility Operators' Access to Transport Corridors (November 2011). This should be addressed as part of the OPW.	Agreed will be addressed as part of OPW stage.

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13	Suggestion / FYI	Flow Transport	<p>The vehicle tracking assessment provided by Beca in their transport assessment shows vehicle crossings wider than permitted by the Auckland Unitary Plan. Flow accept that wider vehicle crossings are needed during the construction phase to provide for the high number of heavy vehicles that will be accessing the site. However, once construction is complete the vehicle crossing widths should be reduced on the southern side of Woodland Park Road to prevent negative impacts on pedestrian amenity and safety. This comment should be addressed within the OPW.</p>	<p>It is considered that the SSTMPs will deal with the construction phase and the comments from AT are agreed.</p> <p>For the operational phase, the WTP vehicle crossing design is based on vehicle tracking (Appendix D of the Transport Assessment Report) and operational considerations, as advised by Watercare. This includes providing a crossing width that allows for operational heavy vehicles to enter and exit without conflict. However, it is recognised that the vehicle tracking in the TAR indicates there is the potential for further design to allow for a pedestrian refuge between the entering and exiting vehicle swept paths. This would reduce the width pedestrians would need to cross in a single stage. It is considered that this can be addressed as part of the OPW conditions for later design development.</p>

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14	Information request	Road Safety	<p>Visibility at accessways</p> <p>1. Section 4.2 of the Beca Transport Assessment (TA) covers visibility from the accessways serving the site. They have used Austroads approach sight distance (ASD) and stopping sight distance (SSD) to assess the visibility. They should be using Austroads safe intersection sight distance (SISD) which is a greater distance.</p> <p>2. For a 55 km/h 85th percentile operating speed road SISD should be around 109 m (2 s reaction time, 0.36 deceleration co-efficient), not allowing for the effect of longitudinal grade which is typically minor.</p> <p>3. Table 4-29 in the TA shows this distance will not be achieved looking west from the new water treatment plant (WTP) accessway. Only 80 m is available. This will effect drivers turning right out of the site, which will be the predominate movement.</p> <p>4. During construction I would be happy for them to use temporary traffic management to slow traffic on Woodlands Park Rd and thereby reduce the SISD required, but once the construction works are done and the site is operational it needs to be provided. I suggest this be done by removing vegetation from the applicants site and road reserve on the inside of the corner. A consent notice requiring them to keep this part of their site clear of tall vegetation should also be included.</p> <p>5. Section 4.2.3 of the TA says that there is 105 and 150+ metres of visibility for the east and west of the reservoir 1 accessway respectively. I would be prepared to accept that this accessway will meet SISD on this basis.</p> <p>6. The accessway for reservoir 2 needs to be assessed for visibility, even if there will only be a small number of vehicle movements post-construction.</p> <p>7. They can use a deceleration co-efficient for a car rather than a truck for this post-construction period as heavy vehicle traffic will be much reduced.</p>	<p>1 to 3. It is recognised that SISD is preferable for assessing visibility at intersections. However, due the constraints of the site frontage, we note that this cannot be achieved for this driveway. As stated in the Transport Assesment Report, the proposed WTP site access driveway is located in the best possible location to provide the optimal sight distance on either approach, given the road environment and site constraints. It is also noted the assessment has used the higher requirements for a truck not a car. This will be enhanced by the trimming of low level vegetation along the site frontage, as per Item 4. It has, however, been demonstrated that the driveway (not an intersection) complies with both the ASD and SSD. This is considered appropriate given the low number of movements associated with the operational phase, similar to the existing WTP site.</p> <p>4. It is agreed that, once construction starts and the SSTMPs are in place, the speed past the site will be reduced, thus reducing the SISD, ASD and SSD requirements. In this context, it is considered that appropriate SISD, ASD and SSD can be achieved.</p> <p>5. SISD is not achievable for both approaches. We consider that ASD and SSD is achievable for the access and is appropriate, given the low number of movements.</p> <p>6. There is no change to the current operation of the existing access. Indeed, with the WTP relocating, operational vehicle movements to and from the existing access (when Reservoir 2 is operational) will be reduced. It is not considered further analysis is needed. During the construction phase, as per Item 14.4, it is considered that appropriate sightlines can be achieved with the SSTMPs in place.</p> <p>7. Even if the car deceleration coefficient is used, the accesses still will not comply fully with SISD. It is considered that ASD and SSD is achievable for the access and is appropriate, given the low number of movements.</p>

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15	Suggestion / FYI	Road Safety	<p>Accessway Design</p> <p>8. There are drawings in the appendices to the TA showing the design of the WTP. It has been designed to allow B-train vehicles to enter and leave simultaneously and is very wide. Wide crossings allow light vehicles (cars, etc) to turn in and out at high speed and also increase the distance for crossing pedestrians. It also appears that it has been designed to look like an intersection where vehicles have right of way over pedestrians rather than as a conventional industrial vehicle crossing.</p> <p>9. No scale is shown on the tracking drawing, but based on the vehicles shown it appears to be greater than 15 m wide. The width of the crossing from reservoir 2 appears to be much less and is more reasonable.</p> <p>10. I would like the applicant to reconsider whether they will need to allow for simultaneous entry / exit by vehicles of this size in the post-construction period. If they don't I would like them to amend the design to reduce the width of the crossing and if they do I would like them to include more justification for this in the TA. I am happy for a wider temporary access to be provided during construction if appropriate temporary traffic management is provided.</p> <p>11. I also request that the accessway be designed as a standard industrial vehicle crossing which gives clear priority to pedestrians.</p>	<p>The Transport Assessment Report has included high level assessment of District Plan Requirements and proposed design. Similarly to the access design, it is considered that this can be developed and refined through later design processes required by conditions of the OPW application for the project.</p>
16	Information request	Road Safety	<p>Heavy vehicle safety on routes to site</p> <p>12. At their peak works will generate a lot of heavy traffic. The TA has provided a reasonably good analysis of the options regarding heavy vehicle routes, but doesn't include any crash history analysis to identify any locations with existing safety problems which might be exacerbated by the works and could need remedial work before the project gets underway. I request that the applicant update the TA to include CAS analysis of the routes. They only need to focus on the routes already deemed to be viable. Routes which are not considered suitable (for instance Scenic Dr west of Woodlands Park Rd) do not need to be re-examined.</p>	<p>Additional information has been provided in the Transport Assessment Report, Section 2.4.2. The assessment has found no specific location or recurring crash causations in the recorded crash data for heavy vehicle movements on the identified heavy vehicle routes to/from the main regional freight network.</p>

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17	Condition requested	Assets	<p>1. Falling Weight Deflectometer (FWD) test should be undertaken prior to construction traffic commenced for all the heavy truck Haul routes to assess the pavement condition. Then undertake the same test annually until construction traffic is ceased. All the test results in RAMM format should be sent to Auckland Transport to enter in RAMM database</p> <p>2. RAMM Visual Condition Rating assessment should be undertaken prior to construction traffic commenced for all the heavy truck Haul routes to assess the surface condition and then monitor these routes by undertaking RAMM Visual Condition rating assessment at three monthly interval until the construction traffic is ceased. All staff engaged in undertaking rating surveys should hold current NZIHT RAMM Road Condition Rater for Sealed Roads course accreditation at the time of undertaking the surveys. All the condition rating data should be sent to Auckland Transport to enter in RAMM database</p> <p>3. Any damaged carriageway, footpath, kerb, crossings, or other Auckland Transport assets as result of the construction or earthworks shall be repaired, reinstated or reconstructed in accordance with Auckland Transport Code of Practice at no cost to Auckland Transport</p>	T&T to discuss with Bruce Chappel (Beca)