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West Lynn Town Centre
Waitemata Safe Routes
Grey Lynn

Accessibility Audit

January 2018

REPORT INFORMATION AND QUALITY CONTROL

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1 PURPOSE OF THE REPORT

The purpose of this report is to provide an independent audit of the streetscape environment of West Lynn with a particular focus on universal access (UA) and injury prevention through environmental design (IPTED).

The aim of the audit is to identify if there are any accessibility and/or safety issues that require further design consideration in order to inform a design review being undertaken by Boffa Miskell Ltd for Auckland Transport (AT).

The report also provides suggested recommendations on approaches to improving and/or enhancing the accessibility of the streetscape environment of Great North Road at West Lynn village.

2 BACKGROUND

Great North Road in West Lynn has recently had a cycleway incorporated into the streetscape environment as part of the Waitemata Safe Routes project (Route C). This has required a retrofit of the streetscape, including kerb and footpath changes, parking and bus stop relocations and adjustments, and the allocation of a dedicated cycleway route along Great North Road.

As a result of public and retailer concerns for safety and functionality of the design as implemented, a review of the project is being undertaken by Auckland Transport. The design review is being undertaken by Boffa Miskell Ltd who have requested an independent expert review of the West Lynn Village section of the Waitemata Safe Routes C, with a particular focus on accessibility.

3 METHODOLOGY

IPTED and UA are key considerations in any public development and have been identified by Auckland Council as requiring specific consideration comprehensively and consistently throughout all phases of design development in order to achieve the highest possible compliance and create public spaces that demonstrate best practice in IPTED and UA principles. This includes consideration of maintenance and management issues (which are often linked to the above concepts).

The overarching principles of barrier-free public spaces or UA, is that these spaces are adapted to fulfil the needs of all people, providing independence, convenience and safety to everyone, whether they be a child, parent with a pram an elderly person, someone with a temporary injury or someone permanently physically disabled or visually impaired. The achievement of barrier-free environments is all about inclusive design. Inclusive design includes consideration of IPTED and universal access and is an important component of the design process. Auckland Council with its range of highly public spaces has a strong emphasis on a barrier-free approach ensuring best practice in IPTED and universal access within its projects. This has been considered during the Waitemata Safe Routes project through the previous road safety assessments.

This component of the project assessment would also reference the New Zealand Disability Strategy. New Zealand Standards must be considered in any new project and in any refurbishment, development or change to public spaces. The Standards that apply to public spaces and therefore which would inform this project include:

- NZ Standard 4121:2001 Design for Access and Mobility – Buildings and Associated Facilities;
- AS/NZ Standard 1428.4.1 Design for Access and Mobility
- AS/NZ standard (draft) 1428.4.2 Wayfinding
- RTS 14 Guidelines for Facilities for Blind and Vision Impaired Pedestrians 3rd Edition May 2015
- ASNZS 36612 1994 – Slip Resistance of Pedestrian Surfaces – Part 2_Reduction of Slip Hazards.

The Barrier-Free New Zealand Trust is a charitable trust with the aim to facilitate and encourage solutions for the provision of Universal Access for all people. It oversees the display of the International Symbol of Access (ISA).

In addition to the above the following documents have informed the assessment; Auckland Design Manual Guidance for Designing for Safety, Car Park Plus, Safer Parking Guidelines, National Injury Prevention Strategy, and the NZ Transport Agency Pedestrian Planning and Design Guide (2009). The Handbook developed in association by the

Earthquake Disability Leadership Team has been referenced as it includes some best practice for UA that is not included in the old standard still being used.

3.1 Accessible Routes

Universal access design aims to meet the environmental needs of all users, regardless of age or ability. Universal access design aims to:

- Improve the usability of the built environment;
- Promote safety and well-being for everyone;
- Enable independent use of the built environment; and
- Ensure that no-one is excluded from use of the built environment of physical barriers.

For public spaces to meet universal access requirements there must be an accessible route. An accessible route is defined in the New Zealand Building Code D1 (10th October 2011) as an access route usable by people with disabilities. It shall be a continuous route that can be negotiated unaided by a wheelchair user, and people using a walking device or guide dog.

The principles of an accessible route in outdoor open spaces generally recognises that not all areas will be accessible, but that there should be at least one route that allows visitors with limited accessibility to gain an experience of the space they are visiting.

3.2 Injury Prevention Strategy (NZIPS)

In 2003 the government released the New Zealand Injury Prevention Strategy (NZIPS). This strategy sets out a vision for New Zealand where more people can live free of injury while continuing to lead active and challenging lives.

The principles of injury prevention is that injuries occur as the result of events that can be predicted and prevented. By understanding these events strategies can be developed that minimise the risk and ultimate likelihood of injury.

In order to undertake a robust audit of the streetscape environment in consideration of the above, representatives from both CCS Disability Action (CCS) and New Zealand Blind Foundation (NZBF) were included in the site audit to provide expert review and testing of the streetscape environment in relation to their respective impairment considerations.

This audit has been carried out by:

- Vivian Naylor - Barrier Free Advisor & Educator, CCS Disability Action, Northern Region;
- Shiree Arrian - National Specialist Staff Trainer, Blind Foundation (on behalf of Carina Duke, Practice Advisor O&M & ADL Southern Region/Instructor for the Blind Foundation); and
- Renee Davies – CPTED, IPTED and UA Assessor and Landscape Architect

The following methodology was undertaken in preparation of this report:

- Desktop review of reports and design drawings;
- Site visit to observe and audit the accessibility of the implemented design;
- Identification of any particular issues or concerns; and
- Recommendations for remediation.

The following documents were referred to in preparation of this report:

- Detailed Design Road Safety Audit – Waitemata Safe Routes, Routes A and B, February 2017 by MWH (Stantec);
- Waitemata Safe Routes Scheme Assessment Report, Routes A, B and C, September 2016 by MWH;
- Waitemata Safe Routes Design Drawings (for construction) by Aecom 6052-525529-SHT-RC-C1202, C1203 and C1204;
- Waitemata Safe Routes Design Drawing by Dempsey Wood 20171129 ASB (northerly side Richmond Road);
- RTS 14 – Guidelines for facilities for blind and vision impaired pedestrians 3rd Edition - May 2015 Road and Traffic Standard Series; and
- NZTA Pedestrian Planning and Design Guide, Oct 2009.

Site visits were undertaken on the following days:

- Tuesday 12th December 2017;
- Tuesday 19th December 2017; and
- Tuesday 9th January 2018.

4 INTRODUCTION

The Waitemata Safe Route C extends through West Lynn Town Centre and provides a connection between Richmond Road and connects to Safe Route A at Surrey Crescent. This accessibility audit is focused on the area of West Lynn Town Centre on Richmond Road, from Sackville Street north of the retail area to Edwards Road in the south. The remainder of the Route C was still under construction at the time of the audit and was not included as part of the assessment undertaken.

This audit is based on the implemented design as at the date of the site visits. The design drawings indicate that there are additional works proposed for some areas. In situations such as these it has been noted that there is identified work, albeit not implemented at the time of assessment.

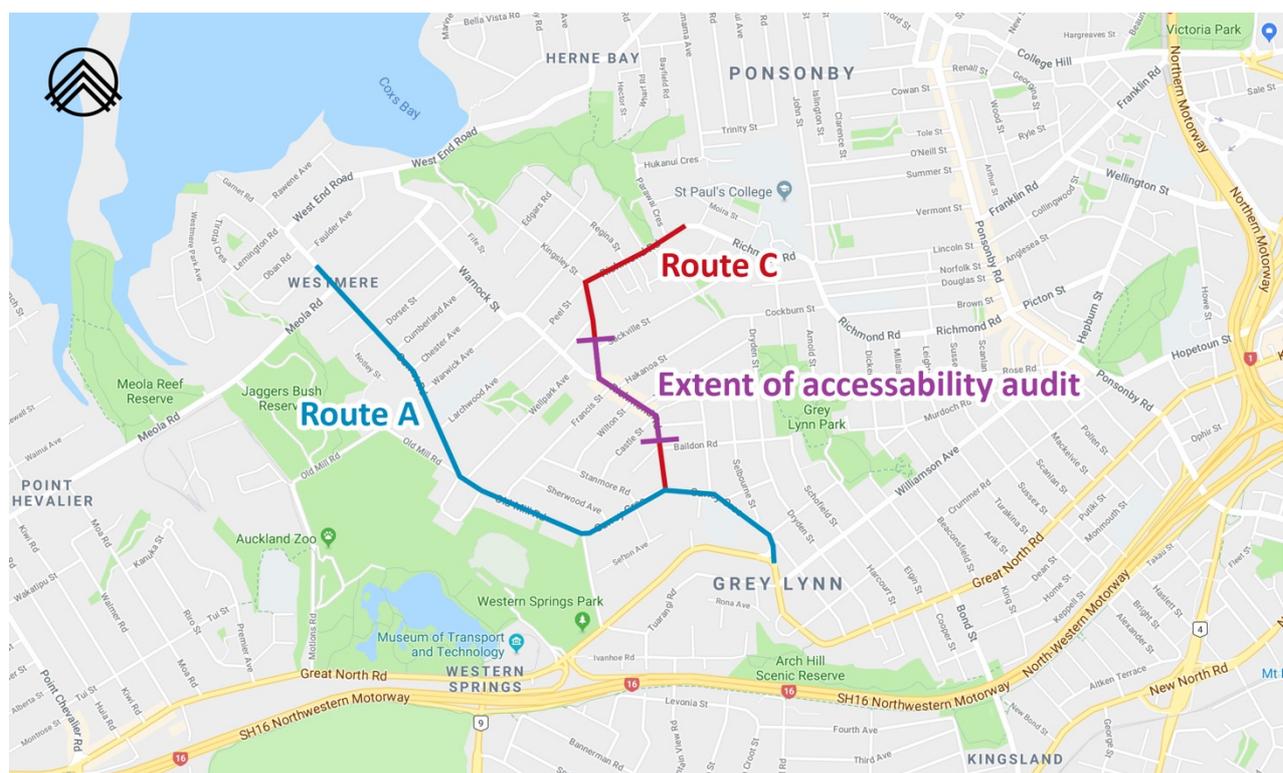


Figure 1 – Map showing the area of accessibility audit along Richmond Road

5 SUMMARY OF IDENTIFIED ISSUES

The following provides a summary of the issues identified within the audit area. Further details explaining the issue identified and including photographs is provided under key UA and IPTED considerations.

- No immediate issues that would require urgent amendment from a safety perspective (i.e. gradient at crossing points).
- Level of accessible parking is quite limited (only two locations).
- It would be desirable for at least one pedestrian crossing point to be controlled.
- Red colour under pedestrian crossings can be an issue for visual impairment (not enough contrast) and also confusion for cognition impairment.
- The Tactile Ground Surface Indicators (TGSIs) are not well located in a number of places and misused in terms of directional indication versus warning. Directionals from path of travel are not always connected.
- Free movement zone along western side of street needs to be a bit better defined. However, the eastern side of street is well provided for.
- Warnock Street crossing point appears to be incomplete compared to plans - need to confirm that intention is to align the central island as per plans.
- Pedestrian crossing nearest Warnock Street – directional are not aligned to path of travel and need extending across the clear and accessible path of travel (CAPT).
- No signage for toilet.
- Bluestone kerb is a trip hazard in various locations where it enters into the movement zones for pedestrians.
- The steep grade at the pedestrian crossing nearest Warnock Street is an issue for someone with low energy that is slow moving. Recommend some form of extended ramp option that perhaps runs along the gradient by car parking – something that enables those that can to use the current gradient, but optional lead in of gentler gradient and could concurrently address unexpected gradient along that stretch of footpath nearest road. This is a forced crossing point as there are no other nearby options, so important that it is a good crossing point for all users.
- Drainage along this side of footpath can be used as the directional as there is not a CAPT along the building frontages – any remedial work needs to ensure some form of tactile directional in this location to guide along this side of road.
- No directionals at Hakanoa Street – confusing with warnings and then another warning where there is no hazard.
- There is an issue with the crossing point coming out to widest part of road. It is understood that this has been done for better visibility of pedestrians. However, the associated change of grade that has to be taken and the movement away from desire line is creating more of a hazard. Pedestrians who are blind or have low vision who are not confident crossing at busy intersections may choose to indent at T intersections way so that gap in traffic can be used and vehicles have time to see and slow down. The desire line is a better gradient and observations on site are that despite planting beds to prevent use of the desire line – the majority of people are using the desire line to cross.
- The disability parking uses the driveway crossings as a kerb ramp – one of these is too steep to be effective for accessibility.
- The no parking areas are not clear as these areas are being used as parking spaces – along with the cycle lane and bus stop.
- The bus stop area has a number of issues of concern. There is a high degree of confusion and major safety issue for users of the crossing. There is confusion as to priority, completely unacceptable trip hazards, no directionals, and sightline issues for users of pedestrian crossing.
- Change of cyclist location is confusing for users and a potential conflict in the shared space.
- Yellow, green and white colouring can be confusing for visually impaired and increase confusion in this location once proposed colour approach is implemented as indicated on plans for the cycle way.
- Tree location and warnings are acceptable although not ideal.
- Good directionals and crossings on west side of the street in general.

5.1 Simple, Logical and Consistent Layouts

Places with well-defined routes, spaces and entrances that provide for convenient movement contribute to access considerations. The success or failure of a place as part of a sustainable community is influenced by the nature and quality of its connections, particularly to local and wider services and amenities. For any user, having a consistent approach to layout and clear areas for movement assist with ensuring a space is accessible for all.

The West Lynn Town Centre area has a change in layout from west to east sides with the clear and accessible path of travel (CAPT) shifting from adjacent to building lines on the eastern side of the road.

In general the western side of the street works well for accessibility and has a clear lineal movement zone with consistent approaches and treatment of road crossings that align with the footpath desire lines and CAPT that is adjacent to building frontages. This side of the street also has less issues in terms of gradient.

The eastern side of the street has a significant gradient issue to deal with which is a contributing factor for some of the accessibility issues identified.

The crossing point at Warnock Street is identified in the Aecom design drawing number 60525529-SHT-RC-C-1204 to have a direct alignment created with adjustments to the footpath on the northern side of Warnock Street to align with the newly created extension on the southern side. At the time of the audit, this had not been implemented.

Providing either a dog leg island or direct alignment as proposed in design drawings will need to be implemented. The design drawing shows warning indicators but does not have any directional provided on either side of the road crossing. Given that the alignment of the footpath angle changes on the north and southern sides in order to facilitate the crossing alignment there will be a need to provide directionals that extend into the line of travel along the footpath to guide users to the crossing points.



Figure 2 - Photo showing lack of alignment to footpath at crossing point and TGSI at bottom not required

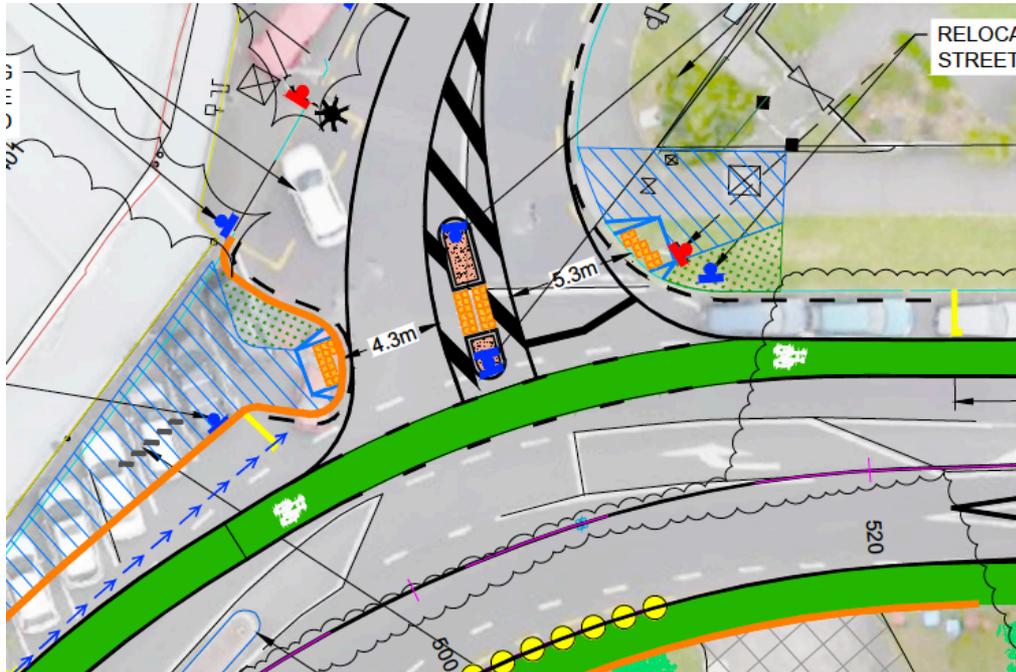


Figure 3 - Image taken from Aecom drawings showing proposed alignment of crossing point (note TGSIs shown do not appear to have the 300mm minimum set back required)

At both Hakanoa Street and Tutanekai Street, the crossing point has been extended out to the widest part of the road to provide for better visibility for pedestrians crossing the road.

There are a number of issues in relation to the implementation of this change to the crossing location that impact on accessibility.

Observations on site indicate that despite the provision of planted areas to guide users to the crossing locations, majority of people (those walking) continue to cross guided by the desire line of the footpath alignment.

The extension out to the widest part of the road for crossing has meant that in these locations the crossing point crosses over the kerb and channel and drainage provision at the corner of the road. The design solution that has been implemented has two drop kerb pram crossings with two warning indicator points (one for the drop in grade and one for the actual road edge warning). The design outcome also means that there is a gradient change to be negotiated in these locations.

From a UA perspective the provision of two warning indicators is very confusing as it makes it difficult for users to know which is the actual crossing point and confuses between warning for change of grade where there is actually no danger, and warning for road edge, where there is danger. The auditors believe there is no need for the double pram crossing, an opportunity has been lost for the crossing point to have been kept at the same grade as footpath with the provision of a drainage channel to address the kerb and channel edge change.

It should be noted that the design drawings do not indicate two warning TGSIs in these locations and only have warning TGSIs at the road edge crossing point.

Although the auditors appreciate the benefit of higher visibility in these locations, it is often the case that non confident visually impaired users are taught to indent for crossing of roads – thus allowing for an assessment of the gap in traffic to be made by the person crossing and then vehicles having time to see and slow down if this judgement hasn't been appropriate.

Given the shelter provided by the existing desire line, the shorter road distance to negotiate, the more consistent and usable gradient, it is considered that in this particular instance, it may be more beneficial for the crossing point to be in alignment with the desire line.

It is noted that in the Detail Design Road Safety Audit for the Waitemata Safe Routes A and C, carried out by MWH, that this issue was raised at the time under section 2.39 - Build-outs at side roads.

The report noted that build-outs had been designed to be put in place and the safety auditors at that time indicated that the crossing points will provide greater visibility – however they noted that these were located so far outside desire lines that they felt that many pedestrians would not use the pram crossing. The designers response referred to the planting beds obstructing pedestrians from the desire line crossings and encouragement of use of pram crossing points. The safety engineers recommendation was for the crossing points to be located back closer to the desire line. The final decision in that report was for no action to be taken and the design to stay as proposed.

Observations on site indicate that alongside the gradient issues associated with accessibility, that pedestrians are not using the pram crossings and continue to cross at the desire line location. As such, it would seem appropriate to reconsider the original decision and review whether there is benefit in relocating the crossing points back to the desire line for Hakanoa and Tutanekai Streets.

It is noted that the NZTA Pedestrian Planning Guide recommends that all crossing points should be designed to minimise pedestrians’ crossing distance, which means ensuring they are at right angles to the direction of the road, the roadway is as narrow at the crossing point as possible, and that where possible, crossings should be located on the pedestrian desire line. Where this is not possible or unsafe, use environmental and/or tactile cues to guide pedestrians to the crossing point.

In the situation at West Lynn Town Centre, the sightlines for crossing points is in conflict with first two priorities identified in these guidelines. The build-outs of the new crossing points have increased the sightlines approximately double in length (taking into consideration parked cars blocking sightlines). None of the crossing points on these side roads (even with the build-outs) appear to meet the minimum sightline approach distances. On the western side of Richmond Road through the Town Centre, other build-outs have maintained crossing points in alignment with desire lines and have crossing points in a similar location in terms of sightlines and visibility as what would be achieved if the crossing were relocated back to the original desire lines. As such, the benefit of the build-outs and changes to crossing points does not seem to be consistent nor provide significant benefit against other factors and considerations for crossing points.



Figure 4 - Photo showing desire line and existing crossing point at Hakanoa Street with no directional guidance to approach the crossing point from both approaches



Figure 5 - Photos showing users crossing road at desire line and retail signs as hazard for pedestrians

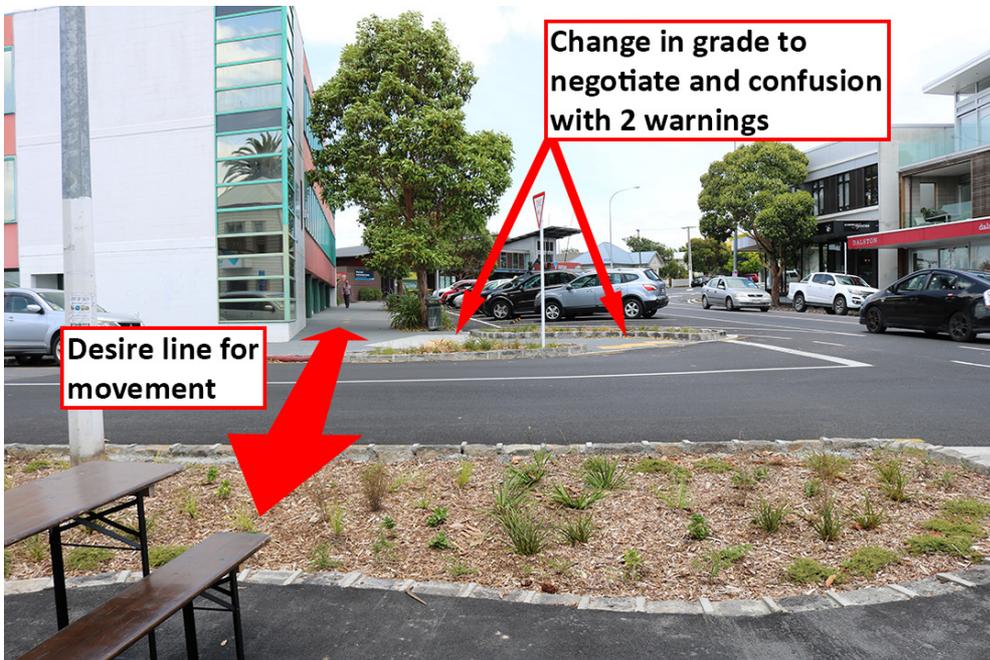


Figure 6 - Photo showing desire line for crossing at Tutanekai Street



Figure 7 - Photo showing two warning TGSIs at Hakanoa Street Build-out crossing, visual contrast to pole in CAPT would be beneficial



Figure 8 - Photo showing 2 warning TGSIs and gradient change at Tutaneikai Street build-out. Note also that the TGSIs at crossing point have been installed incorrectly as they can be stepped through (refer RTS 14 figure 5.11 page 49)

5.1.1 Simple, Logical and Consistent Layouts Recommendations

- That realignment as proposed and/or dog-leg island to facilitate crossing point at Warnock Street is implemented.
- Directionals are provided that extend the full length of the footpath CAPT and movement zone on north and south sides of the crossing point at Warnock Street.
- That road crossing points at Hakanoa and Tutaneikai are re-assessed and consideration given to re-aligning to desire line providing consistent gradient for crossing, shelter, shortest crossing point and indented crossing point considerations.

5.2 Non- visual Features

TGSIs have been included in both design drawings and have been implemented on site. It appears that with a number of TGSIs locations the directionals have not been implemented adequately to provide guidance to users for movement from the CAPT to the crossing points. The directional often stop short of entering the line of travel which means that users will not be guided to the crossing points or know when or where crossings have been provided. Warning tgsi have also not all been installed correctly.



Figure 9 - Photo showing TGSi directional requirements at crossing point adjacent to Francis Street



Figure 10 - Photo showing TGSi directional requirements at crossing point adjacent to new bus stop location

5.2.1 Non-visual Features Recommendations

- That a representative from the Blind Foundation be present on site at time of installation of TGSi to ensure that RTS requirements are implemented appropriately.
- That TGSi directionals are provided in areas indicated to ensure appropriate guidance of users to crossing points.

5.3 Visual Contrast

As identified in RTS 14, visual contrast between the walking surface and surrounding environment is critical for people who have low vision and also those with brain injury or cognitive impairment, such as dementia. Contrast is the critical element for adequate perception and distinction of environmental conditions.

One of the issues identified within the audit in relation to visual contrast is the use of red coloured concrete at the raised table pedestrian crossing points. Normal pedestrian zebra crossings of white on dark asphalt have a high level of contrast. The use of red changes the contrast and makes it harder to interpret for a person who has low vision. Some people who have vision impairment cannot see red. Zebra crossings are known to be white on the dark roading background not on red. It is a challenge for those who also have cognitive impairments (such as dementia) to interpret.

At the West Lynn Town Centre, this lack of contrast is further complicated with the existing trees at both raised table crossing points providing shade over part of the crossing. This shading changes the lighting and makes the crossing point harder for people to see and the lower contrast with the red compared to white on black asphalt, increases the difficulty in readability and interpretation. In addition there is some concern at the crossing point that comes directly towards the tree as those finding the directional tgsi are then led into the tree. Particularly with the long adaptation to change in lighting level.



Figure 11 - Photo showing shading and lower contrast levels on raised table zebra crossing



Figure 12 - Photo showing shading and reduction in contrast at second crossing point and directional leading into tree when coming from south

5.3.1 Visual Contrast Recommendation

- The audit team are aware that the use of this colour for raised tables has been implemented in other locations in Auckland. It is recommended that consideration be given to reviewing the use of red concrete for zebra crossings due to the impact on usability from a visual contrast perspective.

5.4 See and Be Seen

The ability to achieve good sightlines and for pedestrians to be seen by vehicles and vice versa, is an important element in injury prevention and UA.

Observation on site indicates that cars often do not stop for pedestrians at the zebra crossing points. For those with visual impairment this means that with no controlled crossing point anywhere in this Town Centre, accessibility is compromised. For those with impaired mobility and vision, having at least one dedicated controlled crossing point would be beneficial.

The other area where there is potential confusion is in the new location for the relocated bus stop. The bus stop has been designed as a floating bus stop with the cycle way running behind the bus stop location and the footpath. This requires bus users to walk across the cycle way to gain access to the bus stop.

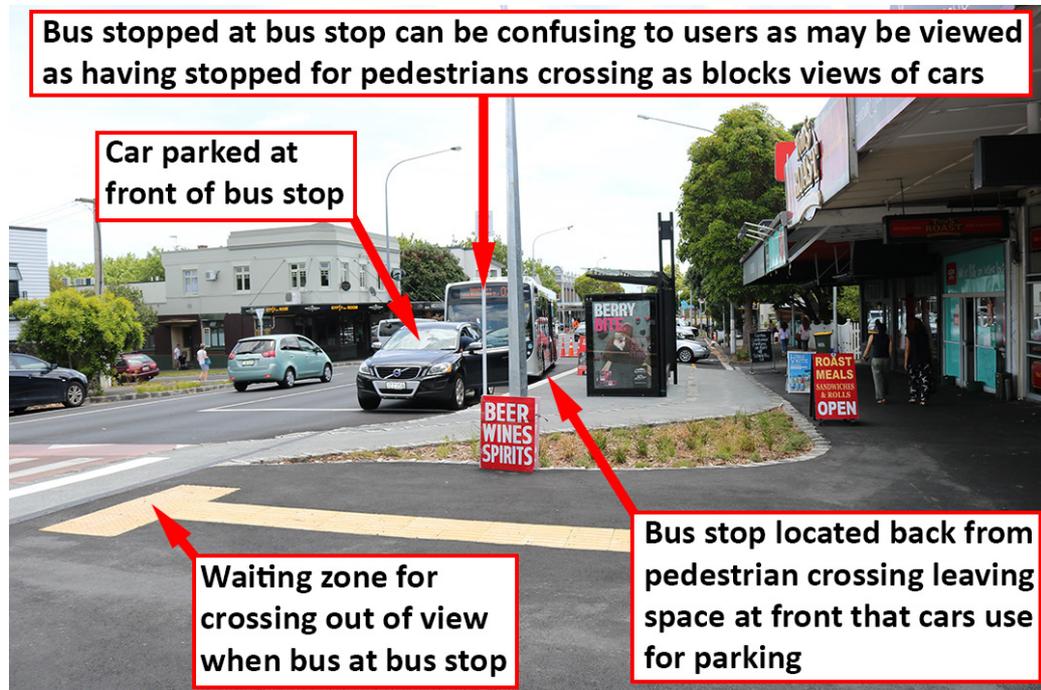
The current design as implemented has little indication of who has priority and there are no directional to guide users to the bus stop. In the design drawings, the cycle way in this location is indicated to have red colouring and striped red indicators to cyclists to watch for pedestrians. To cross over to the bus stop, users have to cross two bluestone kerb edges to the cycle way. These edges have a significant number of inconsistent surface texture and the concrete grout is raised and creates a trip hazard. The edge of the cycle way needs to be tactile, but not so tactile as to create a trip hazard.

The design of the bus stop has an inconsistent approach that makes it confusing for users.

The bus stop in front of the pedestrian crossing creates confusion between the bus not moving and potential waiting vehicles yielding for pedestrians.

There are no TGSIs to located the boarding position for the bus.

The warning TGSIs at the zebra crossing do not cover the full width of the crossing.



5.4.1 See and Be Seen Recommendations

- That consideration be given to provision of one controlled crossing point at West Lynn Town Centre.
- Reconsider location of bus stop to remove visibility issues with pedestrian crossing. If not, removed, address lack of warning and TGSIs for the bus stop.

5.5 Accessible Route

Universal access design aims to meet the environmental needs of all users, regardless of age or ability. Universal access design aims to:

- Improve the usability of the built environment;
- Promote safety and well-being for everyone;
- Enable independent use of the built environment; and
- Ensure that no-one is excluded from use of the built environment of physical barriers.

For public spaces to be fully accessible there must be an accessible route. An accessible route is defined in NZBC D1 as an access route usable by people with disabilities. It shall be a continuous route that can be negotiated unaided by a wheel chair user, and people using a walking device or guide dog. These routes are also useful for parents with prams/pushchairs and other people with different mobility ability.

The principles of an accessible route in outdoor open spaces generally recognises that not all areas will be accessible, but that there should be at least one route that allows visitors with limited mobility to gain an experience of the area they are visiting.

5.5.1 Approachability

There are a few locations on the east side of the audit area where the approachability is difficult for users. Outside the medical centre there are the only two accessible parking spaces in the Town Centre. Access from these across the cycleway and then onto the footpath requires using one of two driveway entries. The driveway entries are not designed for good accessibility and there are no designated kerb ramps that are adequate.



Figure 13 - Photo of existing driveway entry with steep gradient

At the pedestrian crossing adjacent to Tatanekai Street, the pedestrian crossing marking enters into the cycleway. This creates some confusion for users as to where the pedestrian crossing waiting point is. For those that don't use the warning TGS1 the waiting point could be interpreted as adjacent to the white line and halfway into the cycleway – thus creating a potential hazard between pedestrians and cyclists. Once the red colouring on the cycleway is implemented as per the design drawings, this will create further confusion visually and the approachability cues for the crossing point are no longer simple and intuitive.

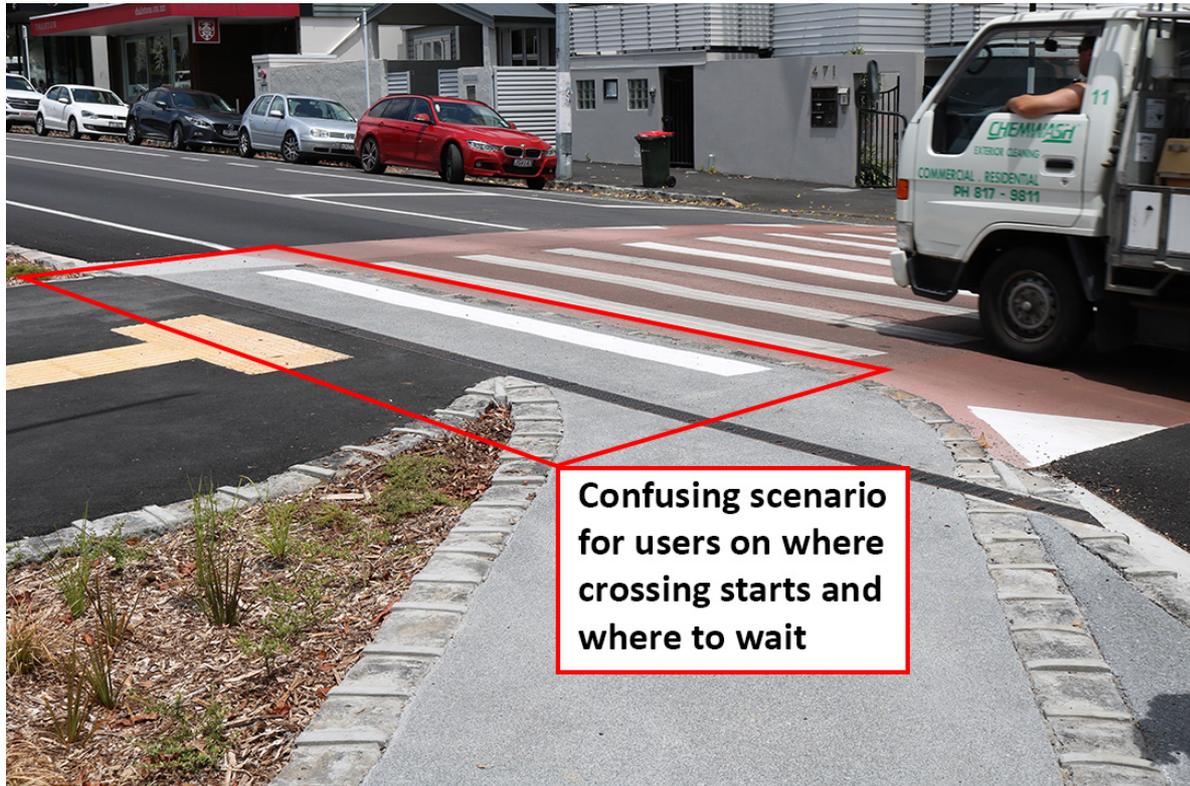


Figure 14 - Photo showing pedestrian crossing moving into cycleway and confusing crossing waiting location also the warning tgsi need to cover the full width of the kerb otherwise can be missed.



Figure 15 - Example of pedestrian moving into cycleway for waiting location for pedestrian crossing (Note the tree may cause those who are long cane travellers to spend more time in the road way after encountering the tree to navigate their way around)

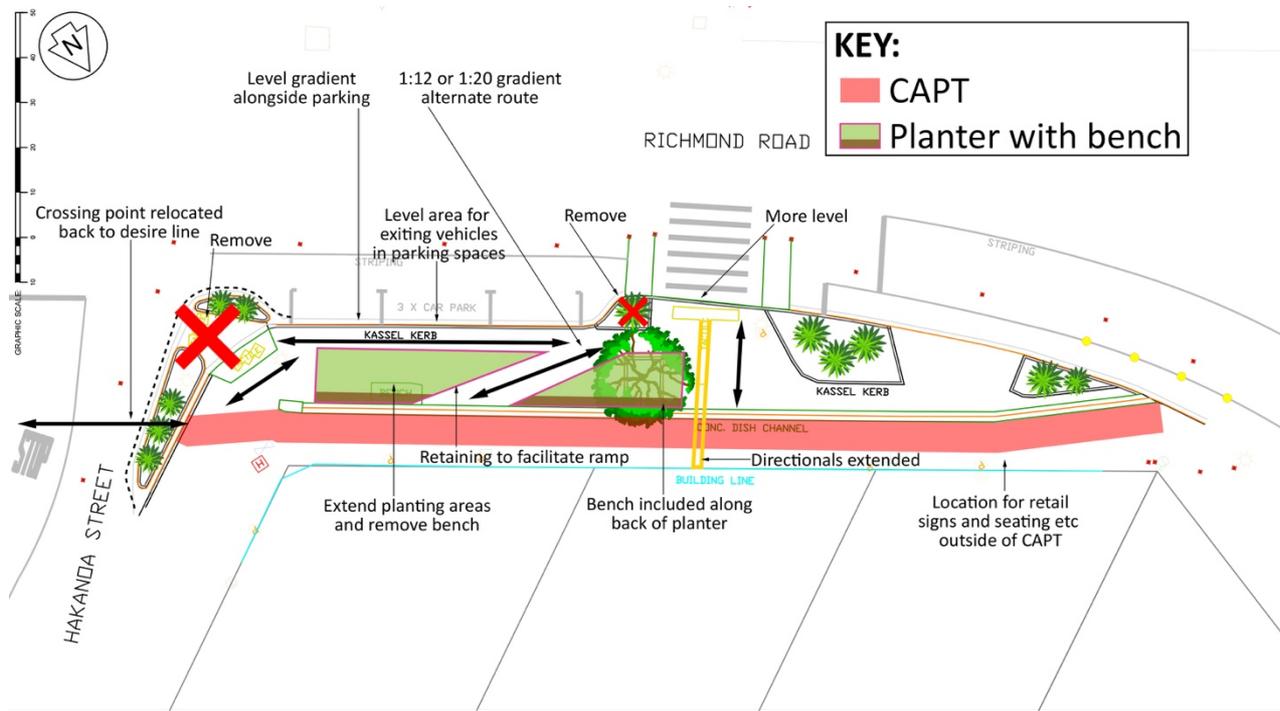
At the crossing point adjacent to Warnock Street, the approachability on the eastern side is compromised due to the significant gradient issues.

Although the existing gradient is manageable for some with limited mobility, for anyone that is less confident, has low energy or is slow moving, the steep grade will be extremely difficult to navigate. This is further exacerbated by the raised table that has further increased the gradient to be navigated. This is also a forced crossing point, as there are no other nearby options for crossing.

There is a large expanse of sloped asphalt footpath adjacent to the crossing point that could facilitate provision of some form of extended length of gradient or ramp that will provide for users that have less ability and require lower effort.



Figure 16 - Alternate route options for less confident users and directional TSGI should be extended to building line and ensure warning TSGI cover the full width of the crossing and match other side.



OPTIONS FOR PROVISION OF ALTERNATE ROUTES FOR VARIABLE ABILITY

NORTHERLY SIDE RICHMOND ROAD – HAKANOVA ST. TO RICHMOND RD

Figure 17 - Sketch plan showing possible alignment of alternate routes and addressing gradient changes

5.5.2 Accessibility

Within West Lynn Town Centre, the CAPT changes in location depending on which side of the street you are using. As long as there is consistency on either side of the street this is manageable.

On the west side of the street, the most logical location for the CAPT runs along the retail and residential building/fence line boundaries. In majority of locations this CAPT is in existence and is free from any barriers. At the Warnock Street end of the retail shops there needs to be some provision for identifying the location of the shopping trolleys outside Harvest Wholefoods and other retail displays located outside the shop. This can be done by either defining a delineator to guide people in this location to a CAPT that runs away from building edge or preferably, negotiate provision of locations on the road side of the footpath along with existing shop signage and furniture to ensure a consistency in CAPT in this location.

Where café dining permits have been given this should have been in the build out not under the covered section in the CAPT as pedestrians should have the priority for shelter. Also if there is to be dining there should ideally be a contrasting higher than 1 m fenced area so it can be visually and tactually detected.

Note there is currently no identified agreed delineator design that should be installed to ensure those who are blind, deafblind or have low vision correctly interpret the meaning. The recommendation from the Blind Foundation is that the capt should be adjacent to the building line to assist people to locate shop entrances and maintain orientation and use echolocation to navigate.

On the east side of the street there are facilities directly outside of shops which means the CAPT does not run adjacent to building frontages. This is not an ideal situation and if possible the CAPT should run adjacent to the building and retail features such as signs/seating/additional items for purchase should be located in a dedicated area outside of the CAPT (which is possible in both locations). In the first block between Sackville Street and Hakanoa Street, it is possible, although not ideal for the CAPT to be facilitated away from building line as there is a drainage channel that acts as a delineator and directional for the CAPT on the road side of the footpath. As such, on this side of the street,

all retail signage should be kept away from this CAPT and closer to the retail frontages rather than roadsides. There is a risk with this approach however, as retail signage may migrate into the CAPT area unless there is weekly monitoring (as this has happened in other shared spaces in Auckland).



Figure 18 - CAPT alignment in first block of eastern side of West Lynn Town Centre



Figure 19 - CAPT alignment on western side of first block of West Lynn Town Centre



Figure 20 - Photo showing existing signage and furniture along outside edge of footpath (preferred location for retail furniture to ensure CAPT consistently runs adjacent to building frontage)



Figure 21 - Photo showing relocated bus stop with no directionals or guidance for bus users

5.5.3 Usability

The usability of a street environment relates to the type of materials being used, the way these materials are put together and the way different elements relate.

At the audit site there are examples of the usability of the site being compromised by confusion for vehicles and pedestrians over what should be happening in certain locations. Examples of this tend to be in locations where road markings are ambiguous in terms of guiding the type of use that should be occurring. In some locations in front of driveways for example, it is not clear that these are no car parking spaces. There are many observed instances of vehicles parking over the cycleway and/or vehicles parking over the wheel stops and therefore projecting into the cycleway. In some instances this situation may be addressed once the cycleway is more clearly identified (at the time of the audit the green colouring and markings had not been implemented).



Figure 22 - Photo of parking confusion



Figure 23 - Example of lack of clarity on use with vehicle parking in cycleway due to alignment



Trip hazard in 2 locations in main access route to bus stop – across dedicated cycleway

Figure 24 - Photo showing bluestone edging to cycleway with trip hazard at crossing point to bus stop

5.5.4 Accessible Route Recommendations

- That use of bluestone kerbing with raised grout lines flush with asphalt and concrete surfaces be reconsidered due to inconsistency and trip hazard.
- Consider clearer and consistent marking of car parking and non-parking zones to ensure clarity of usability for all users – pedestrian, cyclist and vehicular.
- That consideration be given to provision of additional accessible parking within the Town Centre location.
- The eastern side of the footpath at the Warnock Street crossing point be re-designed to provide better gradient changes that will accommodate a wide range of individual preferences and abilities.

6 SUMMARY AND RECOMENDATIONS

A review of the West Lynn Town Centre streetscape environment with a focus on UA and IPTED issues has identified a number of current issues that reduce the accessibility of the street. In response to each of the issues, consideration has been given to all users, pedestrians, cyclists and vehicles and has focused on identifying recommendations to improve the accessibility outcomes. These recommendations are specific to UA and IPTED and are intended to augment existing road safety considerations and standards and guidelines. Recommendations are a guide only for a general approach that may address the identified issues.

In general the issues identified by the audit are specific to the implemented design creating a scenario in some locations of confusion for users in relation to legibility and functionality. TGSi use, gradients, line of travel and desire lines being the key areas where redesign is considered appropriate.

The following provides a summary of the recommendations identified under the different UA and IPTED considerations for the West Lynn Town Centre accessibility audit:

- 1) That realignment as proposed and/or dog-leg island to facilitate crossing point at Warnock Street is implemented.
- 2) Directionals are provided that extend the full length of the footpath CAPT and movement zone on north and south sides of the crossing point at Warnock Street.
- 3) That road crossing points at Hakanoa and Tutanekai Streets are reassessed, and consideration given to realigning to desire line providing consistent gradient for crossing, shelter, shortest crossing point and indented crossing point considerations.
- 4) That a representative from the Blind Foundation be present on site at time of installation of TGSi to ensure that RTS requirements are implemented appropriately. Please contact Carina Duke in the first instance to coordinate cduke@blindfoundation.org.nz
- 5) That TGSi directionals are provided in areas indicated to ensure appropriate guidance of users to crossing points.
- 6) The audit team are aware that the use of the red colour for raised tables has been implemented in other locations in Auckland. It is recommended that consideration be given to reviewing the use of red concrete for zebra crossings due to the impact on usability from a visual contrast perspective.
- 7) That consideration be given to provision of one controlled crossing point at West Lynn Town Centre.
- 8) Reconsider location of bus stop to remove visibility issues with pedestrian crossing. If not removed, address lack of warning and TGSi for the bus stop.
- 9) That use of bluestone kerbing with raised grout lines flush with asphalt and concrete surfaces be reconsidered due to inconsistency and trip hazard.
- 10) Consider clearer and consistent marking of car parking and non-parking zones to ensure clarity of usability for all users - pedestrian, cyclist and vehicular.
- 11) That consideration be given to provision of additional accessible parking within the Town Centre location.
- 12) The eastern side of the footpath at the Warnock Street crossing point be re-designed to provide better gradient changes that will accommodate a wide range of individual preferences and abilities.

Other recommendations:

That the Council address the use of the footpath for commercial use and prioritise the requirements of pedestrians providing clarity on location of CAPT within the town centre and provide for delineated areas for retail facilities as required beyond the retail interior.

