

Samira Ghadimi (AT)

From: Manoj Nathoo (AT)
Sent: Wednesday, 30 April 2025 9:38 am
To: Siobhan O'Donovan (AT)
Subject: FW: Cross St/East St/Canada IFC

From: Putri Kusumawardhani (AT) <Putri.Kusumawardhani@at.govt.nz>
Sent: Monday, 24 February 2025 1:53 pm
To: Vaughn Scott (AT) <Vaughn.Scott@at.govt.nz>; Sophia Wang (AT) <Sophia.Wang@at.govt.nz>; Mathew Rudez (AT) <Mathew.Rudez@at.govt.nz>
Cc: Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>; Suresh Patel (AT) <Suresh.Patel@at.govt.nz>; Road Safety Engineering (AT) <RoadSafetyEngineering@at.govt.nz>
Subject: RE: Cross St/East St/Canada IFC

Morning Sophia,

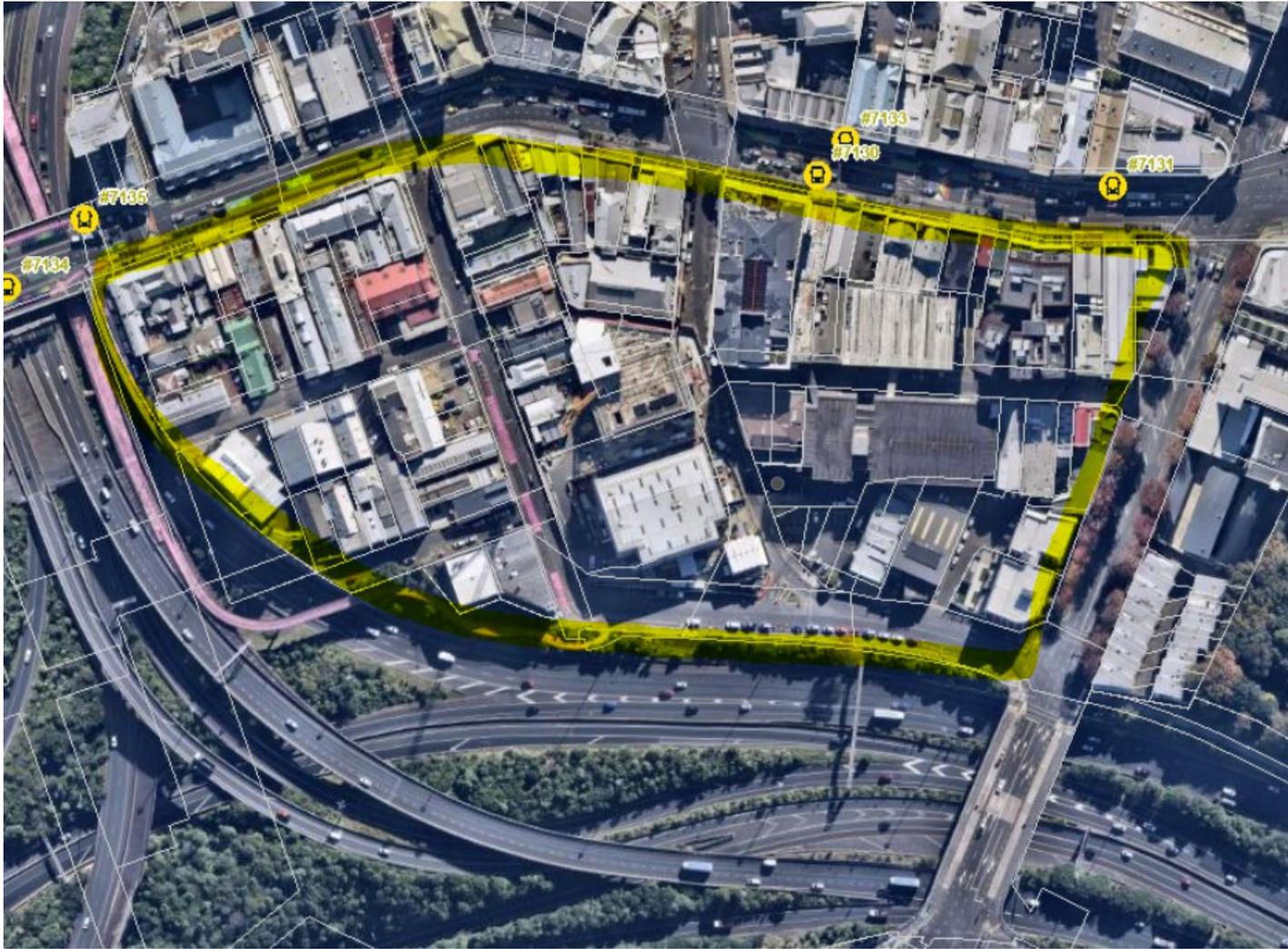
Cross St – Big Picture

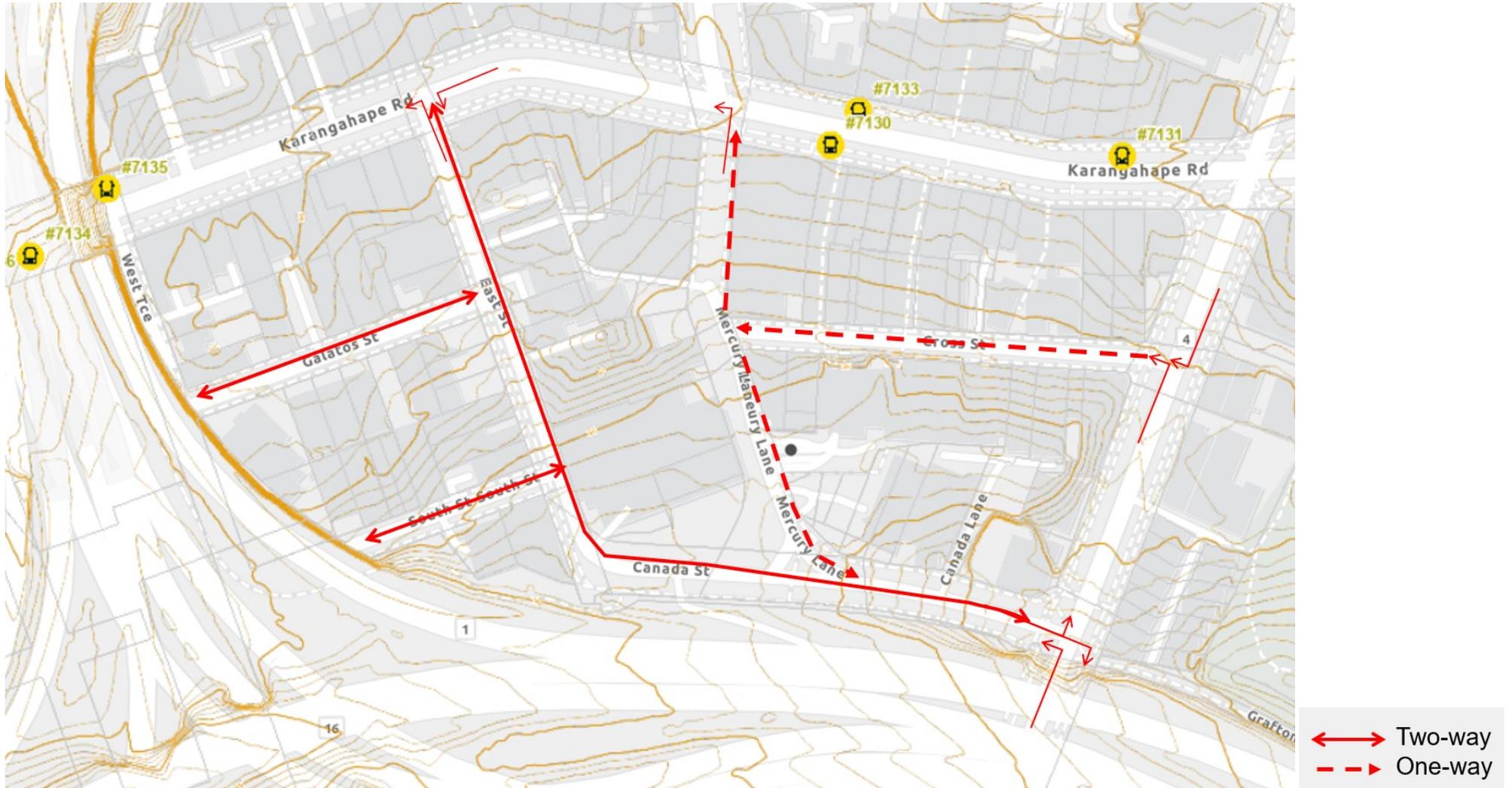
Before diving into the specifics of the design review, I would like to get a clearer understanding of the future network and current speed operating along Cross St. The recent comments from CPAG about the possibility of designating Cross St as a movement operation. While it's understandable that disabled travelers might be encouraged to head towards Beresford, given its more accessible drop and wait zone, it's important to keep in mind that Cross St holds unique significance in this area.

One crucial point to consider is that **Cross St serves as the only middle point with an accessible gradient**, thanks to its layout in the east-west direction. This makes it a vital area for travelers who require an accessible path.

Therefore, while Beresford may indeed better suit drop-off and pick-up by more active users, we should ensure that **Cross St remains accommodating for those who rely on its gradient for easier navigation**.

I believe it's essential to strike a balance between these considerations to ensure that our design is inclusive and caters to the needs of all users in the area.





Based on the contour it seems manageable to maintain the speed along Cross St because no downhill-uphill forces. Removing the vertical features such as the speed hump and speed cushion on Cross St is acceptable if the operating speed can achieve the targeted speed around the station, which is a local road station access.

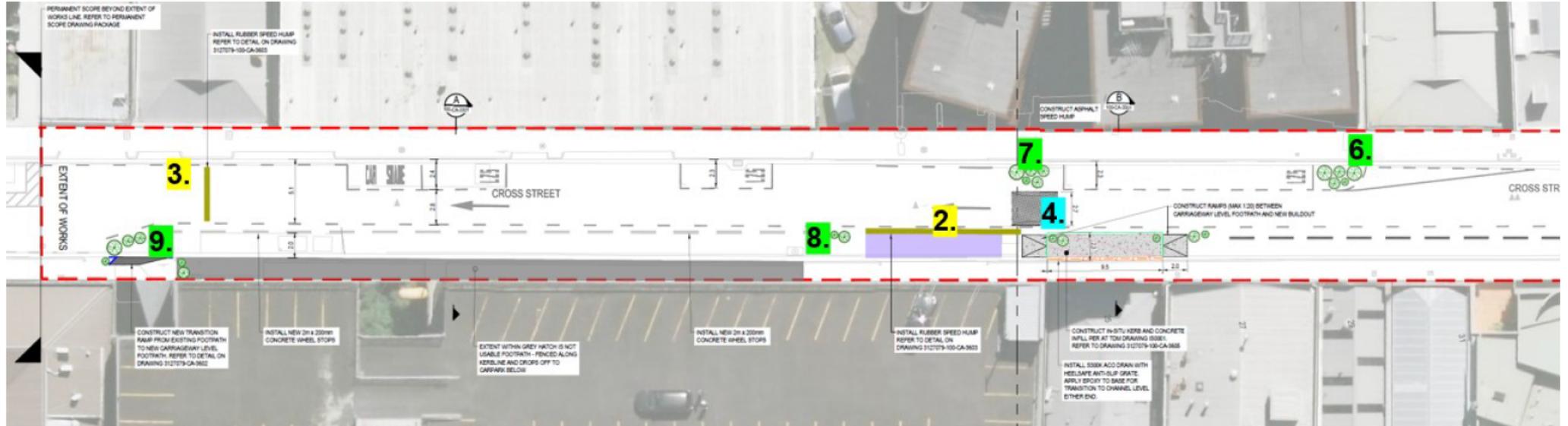
I would also like to point out that the **kerb build-out (horizontal features), still needs to be included on the design.**

It helps to create a clear delineation between the live traffic lane and the kerb-side loading or parking activity (when there is no loading/parking vehicle).

I don't recall what the target speed is - [@Sophia Wang \(AT\)](#) would you be able to inform me the latest design speed?

OVERVIEW DESIGN

Based on my understanding, there are three types of vertical traffic or speed calming measures in place, as per my sketch below. Each of these components interacts with other design elements in the Cross St, and it's essential to consider them from a holistic perspective. It won't be effective to remove or maintain one of these measures without assessing the broader impact on the overall system. Please refer to the table for a detailed explanation of each component.



Rubber speed hump

- 1 and 3: main vehicle movement
- 2: only for vehicle entering the car park building

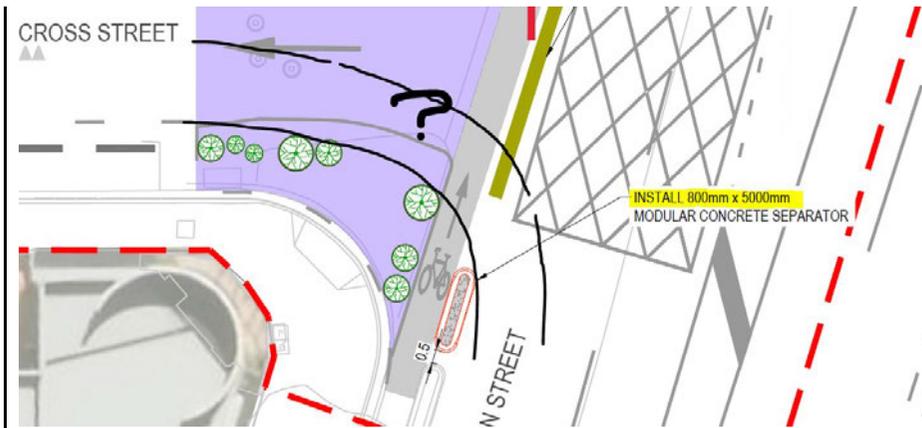
Notes

Rubber speed hump#1 – can be removed

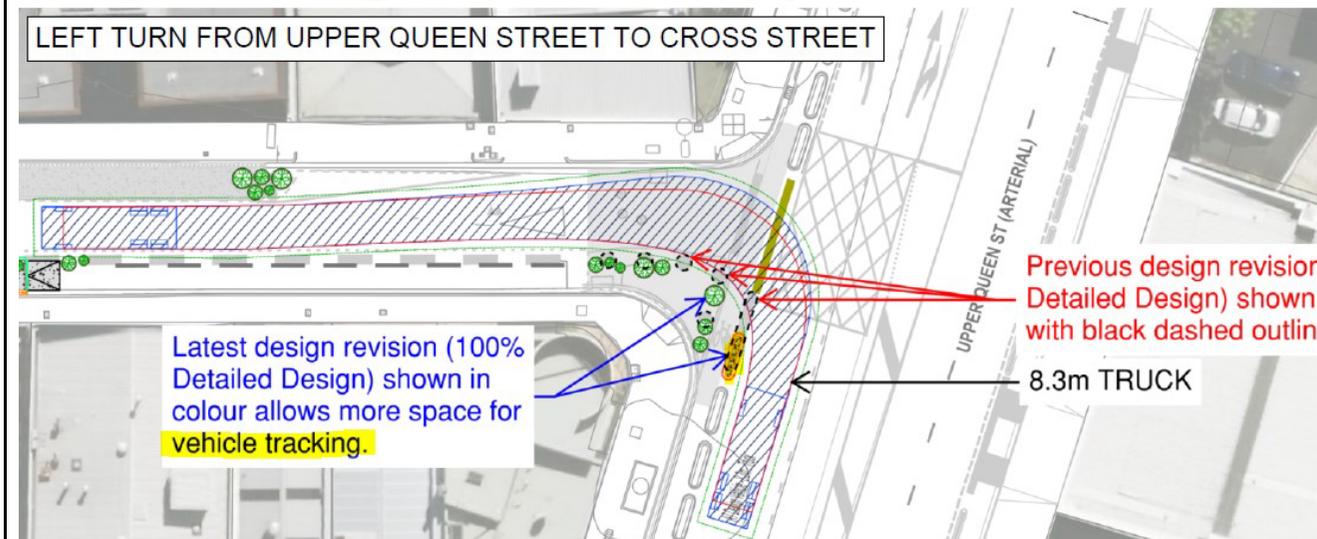
Located in the intersection, a tight turning radius has already helped reduce/manage the speed (retain the additional 800mm concrete separator and planter box #5).

Speed cushion

- 4 (only one between $\pm 55m$ and $\pm 65m$ distance to both of speed humps)
- Subject to operating speed (however tend to agree on managing speed, also can be achieved by having kerbside activity (loading zone, a

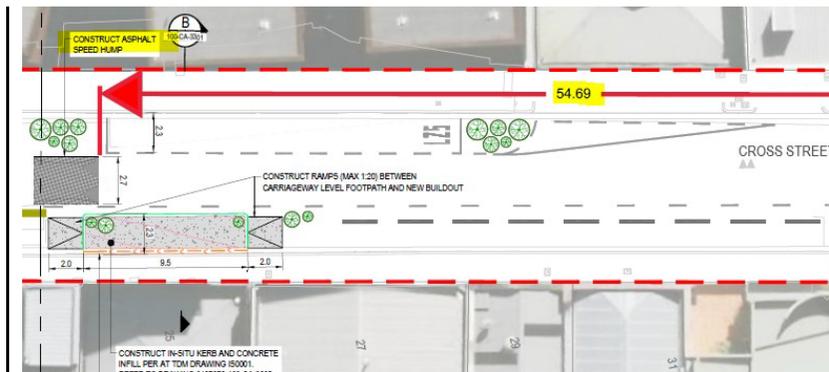


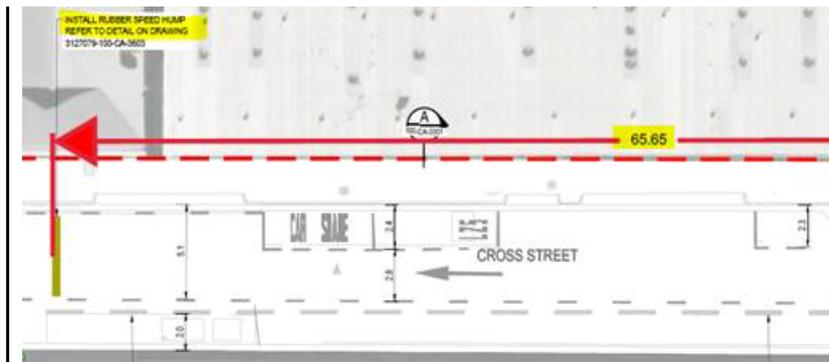
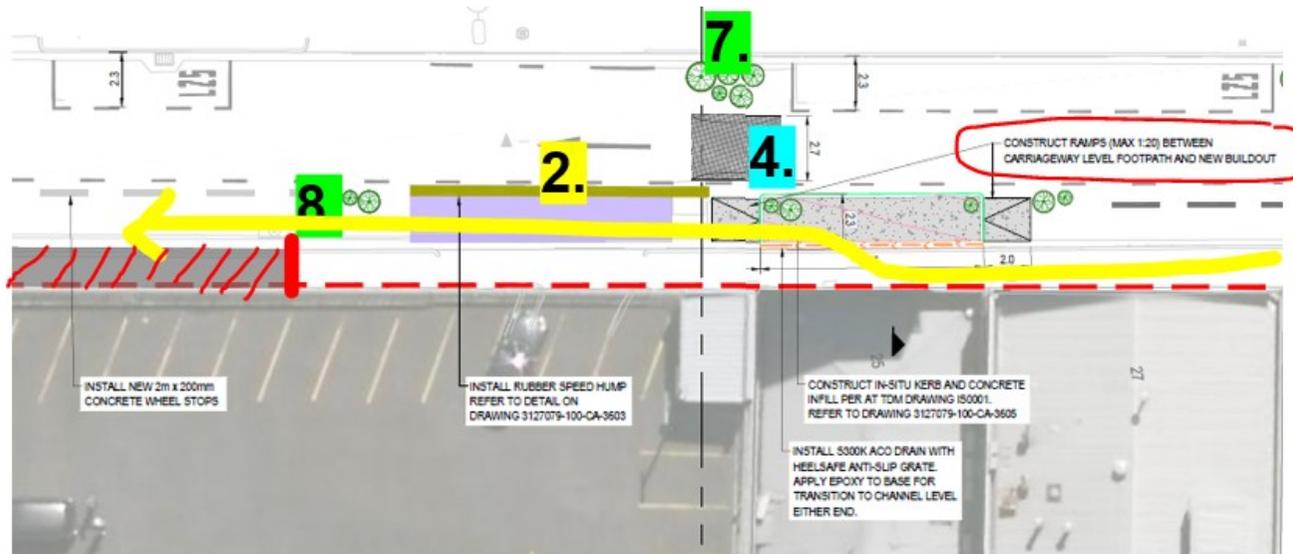
LEFT TURN FROM UPPER QUEEN STREET TO CROSS STREET



Rubber speed hump#2 – can be removed

Previously served the shifting of pedestrians from the kerb build-out (see yellow line), the rubber hump is an additional design treatment to ensure drivers slowly enter the car park building.





MAXIMUM SPACING OF DEVICES FOR SPEED ENVIRONMENTS

| Type | Device | Spacing for 30 km/h (m) | Spacing for 40 km/h (m) | Spacing for 50 km/h (m) | |
|------------|----------------------------|-------------------------|-------------------------|-------------------------|--|
| Vertical | Speed humps (sinusoidal) | 60 | 120 | (2) | |
| | Raised tables | 60 | 120 | 120 (3) | |
| | Raised Intersection | 60 | 100 | 120 (3) | |
| Horizontal | Build-outs or side islands | (1) | (1) | 40 | |
| | Chicane (one lane raised) | 100 | 120 | (2) | When dev at least 5 environm |
| | Chicane (one lane flush) | 60 | 100 | 120 | |
| | Chicane (two lane) | (1) | 80 | 120 | |
| | Traffic islands | (1) | (1) | 120 | |
| | Roundabouts | 100 (4) | 120 (4) | 120 (4) | Distances roundab at least 10 environm |

Notes: Spacing applies to distance from another calming device. Where different devices have the same speed environment, spacing should not exceed the average of the two distances.

1. Device not effective for this speed environment unless combined with other devices
2. Device not suitable for higher operating speeds
3. Using 1:20 ramps
4. For roundabouts only, spacing is to any adjoining device, as roundabouts have a greater zone



Rubber speed hump#3

Vertical treatment to manage speed spacing every 60m for 30km/hr? **Subject to operating speed**
(however tend to agree more on managing the speed by narrowing the street using horizontal features such as planter boxes instead of vertical features - speed humps).

SSA might reveals safety matters – I am looking forward to read the assessment.
Thank you – let me know if you have further question.

Ngā mihi,
Putri Kusumawardhani | Senior Specialist – Active Modes Design
Design & Engineering | Infrastructure & Place
20 Viaduct Harbour Avenue, Auckland 1010
M [REDACTED]
www.at.govt.nz | Putri.Kusumawardhani@at.govt.nz



From: Vaughn Scott (AT) <Vaughn.Scott@at.govt.nz>
Sent: Thursday, 20 February 2025 3:47 pm
To: Sophia Wang (AT) <Sophia.Wang@at.govt.nz>; Putri Kusumawardhani (AT) <Putri.Kusumawardhani@at.govt.nz>; Mathew Rudez (AT) <Mathew.Rudez@at.govt.nz>
Cc: Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>; Suresh Patel (AT) <Suresh.Patel@at.govt.nz>; Road Safety Engineering (AT) <RoadSafetyEngineering@at.govt.nz>
Subject: RE: Cross St/East St/Canada IFC

Hi Sophia,

Not sure where 'vehicle damage' comes from if the hump treatment is as per guidelines; for example:



Separated cycleway treatment at commercial driveways (photo: Axel Wilke)

[Cycle route intersection and crossing treatments | NZ Transport Agency Waka Kotahi](#)

Suggest adopting NZTA guidelines for high frequent driveways and minor intersections. Main point here is with the conspicuity of the cycleway.

[High-use driveway treatment for cycle paths and shared paths - design guidance note](#)

With or without humps, I suspect the hump issue is more of a perception issue and a relatively high PR risk for AT at this time. There would be other considerations with durability of any hump also, so project team needs to consider all risks. Removing the hump probable okay in this road environment but may lessen the conspicuity of the cycle facility.

Your project requires a SSA audit and this will give a steer on the level of risk.

Suggest ongoing monitoring, as the issue of vehicles tuning over a cycleway may raise further concerns from the community (those using the cycleway). And post construction mitigation may be warranted.

Suggest you make your changes, align with best practice guides, and get the final design safety audited. This way you can explain to the community the reason for removing from the project and the related risk scores.

Noting this is a city centre road environment, low traffic speeds so the safety risks should be low – this needs independent review through SSA audit.

Ngā mihi | Thanks

Vaughn Scott | Senior Transportation Engineer
Road Safety Engineering Team
Auckland Transport
DDI 64 9 930 5001 ext 2801
Mobile [REDACTED]

From: Sophia Wang (AT) <Sophia.Wang@at.govt.nz>

Sent: Thursday, 20 February 2025 3:18 pm

To: Putri Kusumawardhani (AT) <Putri.Kusumawardhani@at.govt.nz>; Vaughn Scott (AT) <Vaughn.Scott@at.govt.nz>; Mathew Rudez (AT) <Mathew.Rudez@at.govt.nz>

Cc: Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>; Suresh Patel (AT) <Suresh.Patel@at.govt.nz>

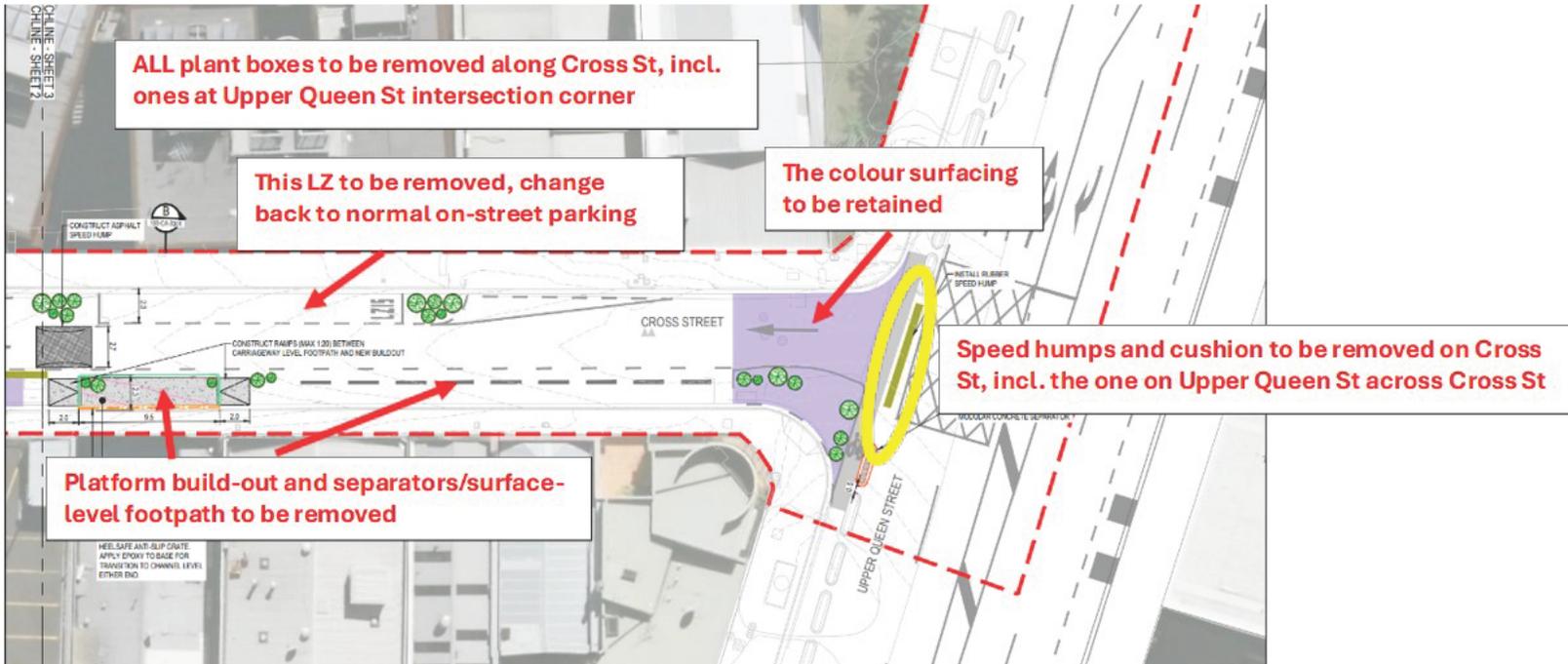
Subject: FW: Cross St/East St/Canada IFC

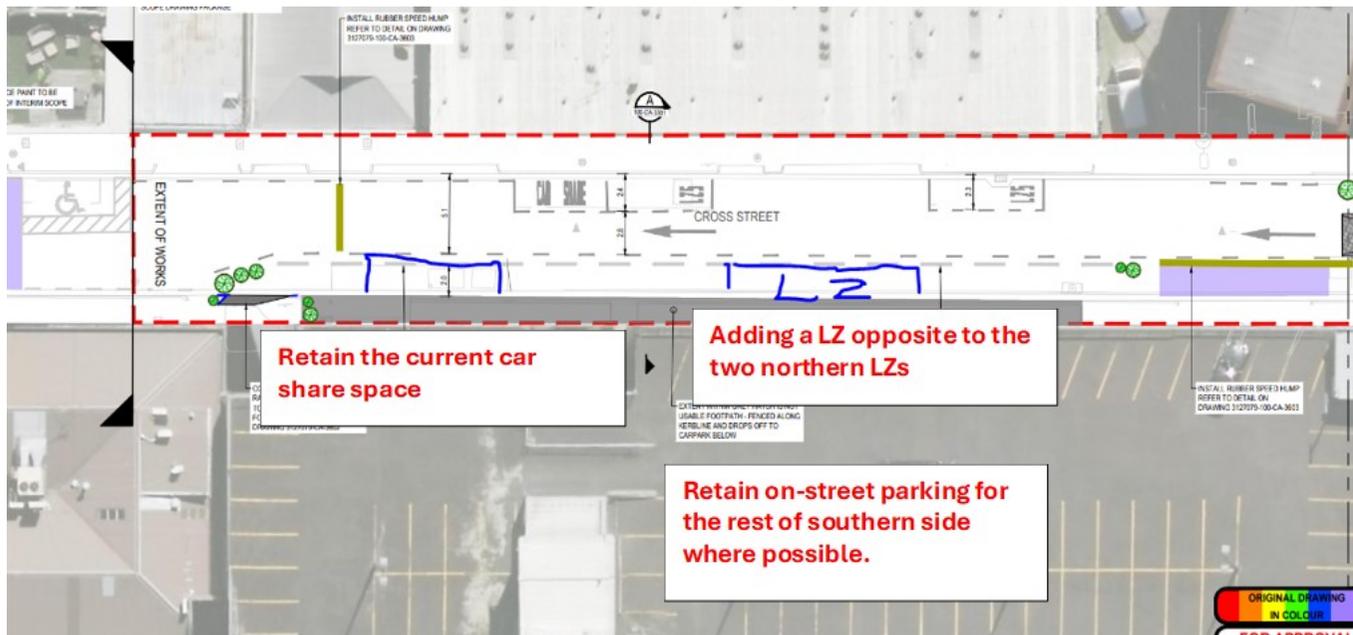
Importance: High

Hi Putri, Vaughn, and Matt

Another item the project team wish to draw your attention is that the speed hump across Cross Street at Upper Queen St intersection is to be removed (yellow circled in the snip below) along with other vertical devices along Cross Street, which was strongly suggested by Murray Burt due to the unpleasant experience and damage it may cause to the turning traffic, especially the delivery trucks. You can refer to pg. 6-7 in the Engineering Package attached for the original Cross St design, and the snips below showing the changes that were recommended and endorsed by Murray. The project team would like to check with you as the key SMEs to this particular item, if any of you have any major concern on the changes. If yes, please kindly provide us a strong justification for keeping any original proposal, for our further engagement with Murray Burt and project PCG.

Thanks
Sophia





From: Sophia Wang (AT)

Sent: Wednesday, 19 February 2025 3:21 pm

To: Vaughn Scott (AT) <Vaughn.Scott@at.govt.nz>; Putri Kusumawardhani (AT) <Putri.Kusumawardhani@at.govt.nz>

Cc: Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>

Subject: RE: Cross St/East St/Canada IFC

Hi Vaughn and Putri

Just a quick follow up for this design review. Please let me know your thought once you two got a chance to discuss/conclude.

Thanks

Sophia

From: Sophia Wang (AT)

Sent: Monday, 10 February 2025 11:24 am

To: Vaughn Scott (AT) <Vaughn.Scott@at.govt.nz>

Cc: Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>

Subject: FW: Cross St/East St/Canada IFC

Hi Vaughn

As discussed over the phone, attached are the original and updated designs for East St. Please let me know any comments from safety perspective. Also, I enclosed the comments from our Traffic Engineering team (the attached email) for your information. As mentioned, I will talk to Putri about this change to get her view onboard too, before our design team proceed with finalising the design change.

You mentioned about a SSA audit addendum, the project team will consider that when the change is reviewed and accepted by our internal teams.

Cheers
Sophia

From: Sophia Wang (AT)
Sent: Tuesday, 4 February 2025 11:12 am
To: Mathew Rudez (AT) <Mathew.Rudez@at.govt.nz>
Subject: FW: Cross St/East St/Canada IFC

Hi Matt

Attached are the new (East St Optioneering) and the initial designs (pg. 9-11) of East St as part of Project K. As discussed, some early comments from your team would be helpful.

Thanks
Sophia

From: <[REDACTED]@beca.com>
Sent: Monday, 3 February 2025 2:36 pm
To: Sophia Wang (AT) <Sophia.Wang@at.govt.nz>; Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>
Cc: <[REDACTED]@beca.com>; <[REDACTED]@beca.com>
Subject: RE: Cross St/East St/Canada IFC

This Message Is From an External Sender

Looks suspicious? Please click the 'Report Suspicious' button for automatic analysis.

Report Suspicious

Hi Sophia,

Please find attached the sketch update of the discussed two-way arrangement with separate tracking sheets. Details of what has been changed are listed below:

- Sheet 1 has the possible locations for the kerb buildout on East St shown in the small Inset (in purple), no other changes from the previous issue.
 - The one on the left would result in the loss of one parking space,
 - The one on the right is 15m from the raised pedestrian zebra crossing and 6.3m from Galatos intersection.
- Sheet 2 is a mix of the old design with different traffic islands and separators. The vehicle tracking for this area is shown in the accompanying Sheet 2 images, 10.7m fire truck rotary ladder two-way, 10.7m truck mounted attenuator accessing SH1 (all run at 5kph)
 - The cycleway is shown along the southern kerb to the previous lightpath ramp. However, there is insufficient space to have a nice transition from the cycleway to the ramp. We would either have a tight turn as shown, or have to add an angled ramp to the east of the catchpit, which may result in similar issues as existing (ped/cycle conflict) at the lightpath interface.
 - The left turn SH1 entry is shown as per the IFC design. This results in a vehicle crossing the opposing traffic lane. This is expected to be infrequent and at low speed, therefore considered to be minimal risk
 - We have aligned the vehicle eastbound approach so that the pedestrian crossing island between the general traffic lanes and the two-way cycleway on the southern side, has the maximum space possible. The island width between cycleway and carriageway would be 2m. It is recommended the crossing alignment design be straightened (to 90degrees with the road) to maximise visibility in both directions and shorten the crossing distance.
 - The 2m island on the crossings between the carriageway and cycleway is slightly more than a minimum 1.8m wide traffic island, which allows for a cyclist, person with buggy and clear separation between the crossing of the road and the cycleway.
 - 4 parking spaces have been retained on the north side
- Sheet 3 is very similar to the IFC design
 - The tracking requires additional island space for removal, slightly more than previous design options.
 - No other change

Regards,

Senior Associate Transport Engineer

Beca

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