Agenda

Rangiora-Ashley Community Board

Wednesday 8 November 2023

7pm

Council Chamber
215 High Street
Rangiora

Members:

Jim Gerard QSO (Chairperson)
Kirstyn Barnett (Deputy Chairperson)
Robbie Brine
Ivan Campbell
Murray Clarke
Monique Fleming
Jason Goldsworthy
Liz McClure
Bruce McLaren
Joan Ward
Steve Wilkinson
Paul Williams

WAIMAKARIRI
DISTRICT COUNCIL

AGENDA CONTENTS – RANGIORA-ASHLEY COMMUNITY BOARD MEETING

Board Members
RANGIORA-ASHLEY COMMUNITY BOARD

AGENDA FOR THE MEETING OF THE RANGIORA-ASHLEY COMMUNITY BOARD TO BE HELD IN THE COUNCIL CHAMBER, 215 HIGH STREET, RANGIORA ON WEDNESDAY 8 NOVEMBER 2023 AT 7PM.

RECOMMENDATIONS IN REPORTS ARE NOT TO BE CONSTRUED AS COUNCIL POLICY UNTIL ADOPTED BY THE COUNCIL

BUSINESS PAGES

1. APOLOGIES

2. CONFLICTS OF INTEREST

3. CONFIRMATION OF MINUTES

3.1. **Minutes of the Rangiora-Ashley Community Board – 11 October 2023** *8-27*

RECOMMENDATION

THAT the Rangiora-Ashley Community Board:

(a) **Confirms,** as a true and accurate record, the circulated Minutes of the Rangiora-Ashley Community Board meeting, held on 11 October 2023.

3.2. **Matters Arising (From Minutes)**

4. DEPUTATIONS AND PRESENTATIONS

4.1. **Rangiora Hacks - Sam Fisher**

S Fisher will be in attendance to update the Board on possible projects in and around Rangiora.

4.2. **Drafting Rangiora Stormwater Management Plan – Sophie Allen.**

S Allen will be in attendance to discuss the drafting of the Rangiora Stormwater Management Plan.

5. ADJOURNED BUSINESS

Nil.

6. REPORTS

6.1. Marshall Street Changes associated with Southbrook School Travel Plan – Kieran Straw (Civil Project Team Leader) and Don Young - (Senior Engineering Advisor)

28-66

RECOMMENDATION

THAT the Rangiora-Ashley Community Board:

(a) **Receives** Report No. 230516070310.

AND

THAT the Rangiora-Ashley Community Board recommends:

THAT the Utilities and Roading Committee:

(b) **Approves** the scheme design (Trim: 220817141870).

(c) **Approves** the removal of two on-street car parks on the eastern side of Marshall Street (opposite No. 33) to accommodate the proposed footpath connection.

(d) **Notes** that the scheme design has been developed in conjunction with Southbrook School, as part of the development of the School Travel Plan, and that the proposed layout has been subject to an independent Road Safety Audit.

(e) **Notes** that this project is funded through the "Transport Choices" funding stream, and this requires that all works is complete by June 2024

AND

THAT the Rangiora-Ashley Community Board recommends:

THAT the District Planning and Regulation Committee:

(f) **Approves** the implementation of limited time parking on the eastern side of Marshall Street immediately outside the school (between angle parking and the Torlesse Street intersection), with restrictions applying "Monday to Friday" (including School Holidays, and between 8:00am – 6:00pm) as follows:

"P5 Pick Up / Drop Off Only Monday to Friday"

(g) **Approves** the implementation of limited time parking on the western side of Marshall Street (No. 25 – 29), with restrictions applying during school days / hours as follows:

"P15 8:00am – 9am 2:30pm – 3:30pm School Days"

(h) **Approves** the amendment of existing P5 parking restrictions on Denchs to include the morning pick-up / drop off times (currently restricted for afternoons only), with restrictions applying during school days / hours as follows:

"P5 8:00am – 9am 2:30pm – 3:30pm School Days

(i) **Notes** that staff will update the Schedule of Parking Restrictions upon completion of the works.

(j) **Notes** that there is an existing mobility park on Marshall Street outside Southbrook School that is not currently on the Schedule of Parking Restrictions. This will be added to the schedule in conjunction with the other proposed parking restrictions associated with this report.

6.2. **Queen Street Tree report in response to the submission from the Hills – Grant MacLeod (Community Greenspace Manager)**

67-268

RECOMMENDATION

THAT the Rangiora-Ashley Community Board:

(a) **Receives** report No. 231026170975.

(b) **Approves** the retention of the London Plane Trees on Queen Street.

(c) **Approves** staff continuing with the current tree maintenance programme for the Queen Street trees.

(d) **Notes** that staff are to provide a succession planting plan for Queen Street. That this plan should be presented back to the Rangiora Ashley Community Board by April 2024.

(e) **Notes** that the reason for the succession planting plan is to retain the amenity, biodiversity and other benefits of the trees long term. This will ensure a canopy avenue for future generations.

OR

(f) **Approves** consulting with the District on a selective removal and staged replacement programme of the plane trees.

(g) **Notes** that as part of the consultation, staff will develop a draft tree replacement program (noting it will not be London Plane Trees that are replanted) for the public to comment on.

(h) **Notes** staff will report the findings of this consultation back to the Rangiora Ashley Community Board by April 2024.

OR

(i) **Approves** staff to undertake community consultation with the District that proposes the removal of the London Plane Trees along Queen Street.

(j) **Notes** staff will report the findings of this consultation back to the Rangiora Ashley Community Board by April 2024.

7. CORRESPONDENCE

Nil.

8. CHAIRPERSON'S REPORT

8.1. **Chair's Diary for October 2023**

269

RECOMMENDATION

THAT the Rangiora-Ashley Community Board:

(a) **Receives** report No. 231101174269.

9. MATTERS FOR INFORMATION

9.1. **Kaiapoi-Tuahiwi Community Board Meeting Minutes 18 September 2023.**

9.2. **Oxford-Ohoka Community Board Meeting Minutes 4 October 2023.**

9.3. **Woodend-Sefton Community Board Meeting Minutes 9 October 2023.**

9.4. **July 2023 Flood Event Response and Recovery – Forecast Costs and Funding Sources – Report to Council Meeting 3 October 2023 – Circulates to all Boards.**

9.5. **Submission Emergency Management Bill – – Report to Council Meeting 3 October 2023 – Circulates to all Boards.**

9.6. **Significance and Engagement Policy for Adoption – Report to Council Meeting 3 October 2023 – Circulates to all Boards.**

9.7. **Submission: Government Policy Statement on Land Transport – Report to Council Meeting 3 October 2023 – Circulates to all Boards.**

9.8. **Council Meeting Schedule January 2024 to December 2024 – Report to Council Meeting 3 October 2023 – Circulates to all Boards.**

9.9. **Health, Safety and Wellbeing Report September 2023 – Report to Council Meeting 3 October 2023 – Circulates to all Boards.**

9.10. **Consultation on the Draft Speed Management Plan – Report to Council Meeting 17 October 2023 – Circulates to all Boards.**

9.11. **Eastern Districts Sewer Scheme and Oxford Wastewater Treatment Plan Annual Compliance Monitoring Report 2022-23 – Report to Utilities and Roading Committee Meeting 17 October 2023 – Circulates to all Boards.**

9.12. **July 2023 Flood Recover Progress Update – – Report to Utilities and Roading Committee Meeting 17 October 2023 – Circulates to all Boards.**

9.13. **Cam River / Ruataniwha Report – Report to Utilities and Roading Committee Meeting 17 October 2023 – Circulates to all Boards.**

9.14. **Adoption of Road Safety Action Plan 2023/24 – Report to Utilities and Roading Committee Meeting 17 October 2023 – Circulates to all Boards.**

9.15. **Rangiora Stormwater Monitoring Report 2021-22 – Report to Utilities and Roading Committee Meeting 17 October 2023 – Circulates to Rangiora-Ashley Community Board.**

9.16. **Aquatics October Update – Report to Community and Recreation Committee Meeting 17 October 2023 – Circulates to all Boards.**

RECOMMENDATION

THAT the Rangiora-Ashley Community Board:

(a) Receives the information in Items.9.1 to 9.16.

Note:

1. The links for Matters for Information were previously circulated to members as part of the relevant meeting agendas.

10. MEMBERS' INFORMATION EXCHANGE

The purpose of this exchange is to provide a short update to other members in relation to activities/meetings that have been attended or to provide general Board related information.

Any written information submitted by members will be circulated via email prior to the meeting.

11. CONSULTATION PROJECTS

11.1. Speed Management Plan 2023/27

https://letstalk.waimakariri.govt.nz/speed-management-plan-2023-27

Consultation closes Monday 27 November 2023.

Drop In Session – 5.30pm-7.30pm, Council Chambers, Rangiora.

11.2. Relocating the Pines Beach Playground

https://letstalk.waimakariri.govt.nz/relocating-the-pines-beach-playground

Consultation closes Friday 17 November 2023.

11.3. Libraries Survey

https://letstalk.waimakariri.govt.nz/libraries-survey

11.4. Environment Canterbury – Let's Pick a Path

https://haveyoursay.ecan.govt.nz/hub-page/pick-a-path-ourfuture

Consultation closes Sunday 3 December 2023.

12. BOARD FUNDING UPDATE

12.1. Board Discretionary Grant

Balance as at 31 October 2023: $8,957.

12.2. General Landscaping Fund

Balance as at 31 October 2023: $27,370.

13. MEDIA ITEMS

14. QUESTIONS UNDER STANDING ORDERS

15. URGENT GENERAL BUSINESS UNDER STANDING ORDERS

NEXT MEETING

The next meeting of the Rangiora-Ashley Community Board is scheduled for 7pm, Wednesday 13 December 2023.

Workshop

- *Community Board Landscaping Budget projects – Grant Stephens (Design and Planning Team Leader) – 30 mins*
- *New Laneway 202/190 High Street – Heike Downie (Senior Advisor – Strategy and Programme) – 30mins*
- *Members Forum*

MINUTES FOR THE MEETING OF THE RANGIORA-ASHLEY COMMUNITY BOARD HELD IN THE COUNCIL CHAMBER, 215 HIGH STREET, RANGIORA ON WEDNESDAY 11 OCTOBER 2023 AT 7PM.

PRESENT

J Gerard (Chairperson), K Barnett (Deputy Chairperson), R Brine, I Campbell, M Clarke, M Fleming, J Goldsworthy, L McClure, B McLaren, J Ward, S Wilkinson, and P Williams.

IN ATTENDANCE

S Hart (General Manager, Strategy, Engagement and Economic Development), D Young (Senior Engineering Advisor), S Binder (Senior Transportation Engineer), K Straw (Civil Projects Team Leader), K Lindsay-Lees (Senior Communications and Engagement Advisor), T Kunkel (Governance Team Leader) and C Fowler-Jenkins (Governance Support Officer).

There were four members of the public present.

1. APOLOGIES

There were no apologies.

2. CONFLICTS OF INTEREST

There were no conflicts declared.

3. CONFIRMATION OF MINUTES

3.1. Minutes of the Rangiora-Ashley Community Board – 13 September 2023

Moved: J Goldsworthy Seconded: L McClure

THAT the Rangiora-Ashley Community Board:

(a) **Confirms,** as a true and accurate record, the circulated Minutes of the Rangiora-Ashley Community Board meeting, held on 13 September 2023.

CARRIED

3.2. Matters Arising (From Minutes)

T Kunkel noted that an update on the Board's delegation regarding property purchases and sales were expected at the Board's November 2023 meeting.

K Barnett enquired about the report on the proposed installation of wire and bollard fencing at Cust Domain, which was laid on the table at the previous meeting. T Kunkel advised that she had followed up with the Council's Greenspace Team and they had committed to submitting a report to the Board in November 2023.

4. DEPUTATIONS AND PRESENTATIONS

Nil.

5. ADJOURNED BUSINESS

Nil.

6. REPORTS

6.1. Approval of Design for Project 2 of the Transport Choices Programme (Rangiora Town Cycleway – Stage 1) – K Straw (Civil Project Team Leader) and D Young (Senior Engineering Advisor)

K Straw noted that the report sought the Board's endorsement of the detailed design for the Rangiora Town Cycleway – Stage One (Project two of the Transport Choices Programme), prior to it being submitted to the Council for approval. He reminded the Board that the project was part of Walking and Cycling Network Plan which evolved from the Council's Walking and Cycling Strategy. The Network Plan had previously been consulted on from May to July 2022, and the Council received 117 submissions of which 82% were in favour of the Network Plan and wanted an increase in the Council's investment in walking and cycling infrastructure. K Straw further noted that the Board had previously supported this link in the Rangiora Community Plan and had also agreed that Southbrook Road should not be promoted as the alternative cycling route, due to the busy commercial area.

K Straw explained that the Council had consulted with the impacted residents and the initial design had been amended. The changes to the design were primarily on South Belt where the refuge crossing point was previously indicated to be east of King Street, this had now been relocated to the west. This change was in direct response to concerns raised by residents at the drop-in session held at the Southbrook Rugby Club. The Council had also received feedback from KiwiRail, who had agreed to the proposed design, and after viewing a So Far As Is Reasonably Practicable assessment (SFAIRP), accepted that it was not reasonably practicable to install half arm barriers at the two level-crossings, located at Marsh and Dunlops Roads. KiwiRail were therefore supportive of the project providing that the alternative mitigations went ahead which was the change of the priority at the Marsh Road intersection and the installation of the speed humps on approach to the level crossing.

K Straw advised that PAK'nSAVE remained opposed to the cycleway with their primary concern being that Railway Road was in an industrial area with frequent truck movements. However, Council Staff believed that the updated design would mitigate PAK'nSAVE's concerns. He noted that Railway Road had 97 heavy vehicle movements per day versus 1,296 on Southbrook Road. Southbrook School also made a submission, but they had based their submission on the assumption that the one way section of Railway Road would require all PAK'nSAVE trucks to exit past the school. However, the one way section only ensured that the trucks could access PAK'nSAVE's rear entrance where they unloaded and then exit on to Station Road.

In conclusion, K Straw reported that the Council had received 50 submissions during the public consultation on the proposed cycle connections that closed on 11 September 2023, 26 in support and 22 in opposition and two left blank. The 22 submissions received in opposition did not raise specific objections to this particular cycleway, however, seem to rather be opposition to the expenditure on cycleways in the current climate or statements that the funds could be better spent other roading projects or maintenance.

P Williams sought clarity on PAK'nSAVE's primary concerns and D Young noted that PAK'nSAVE had raised various concerns about the proposed design including safety concerns.

P Williams questioned what weighting staff had placed on submissions based on safety concerns. D Young advised that staff had provided the Board with factual information, and it was for the Board to determine how much weight should be given to objections.

K Barnett noted that approximately 19 carparks would be lost along the route. She requested staff to highlight where the carparks would be removed and who traditionally parked there. K Straw noted that the main areas where street parking would be impacted was the occasional carparks along the route, due to a build out or a crossing location. Also, the six informal angle carparks outside Allied Concrete, the vehicles that currently parked there were contributing to PAK'nSAVE's safety concerns by obstructing the view of oncoming vehicles. It was highly likely that PAK'nSAVE staff or other staff in area were currently parking there, however, Allied Concrete was comfortable with parking being removed.

K Barnett asked where the staff in area would be expected to park in future. D Young noted that the Council had made allowance north of Dunlop Road to be converted to more parking. Staff accepted that was further away and they were not suggesting it would replace every carpark being removed. K Straw noted that staff had previously met with the residents of Country Lane and they had requested that Country Lane be added to the no parking register. Therefore a 100 meter section each side of Country Lane would be no stopping.

Furthermore, K Barnett noted that due to the congestion on Southbrook Road, many motorists were using Railway Road as a rat run to bypass Southbrook Road. She enquired if staff had any concerns about blending the commuter traffic, that was going quite fast, and cyclists along Railway Road. D Young noted that staff had given much consideration to the possibly for rat running when finalising the design and they were aware of the possibility for the Coronation/ Buckleys route becoming a rat run.

P Williams enquired about the average age of the trees that would be removed. D Young commented that the majority of the trees were along Railway Road south up to Station Road. There was one straggly tree on Coronation Street which would be removed, however, the majority of the larger trees would remain. Staff could not comment on the age of the trees on Railway Road, but they were not large specimens. Any decisions regarding the existing trees and/ or the planting of new trees, would be made by the Council's Greenspace Team.

J Gerard requested staff to ensure that any decisions regarding the existing trees and/ or the planting of new trees be discussed with the Board prior to finalisation.

M Fleming noted that some submissions mentioned the relocation of the South Belt bus stop to west of the cycle storage boxes, however, it was not on in the current design. She thought that it may be better visibility for pedestrian crossing and result in a larger gap between bus stops. D Young confirmed that the Council's intention was to relocate the bus stop.

I Campbell questioned what studies the Council had done on the use of the existing cycleway and D Young noted that the Council had not undertaken a study and therefore did not have that information.

I Campbell noted that the cycleway was about ensuring the safety of cyclists. However, D Young explained that it was about more than trying to improve the safety of the existing cycleway. It was about creating an environment where people would feel safe to cycle, thus getting more people cycling.

I Campbell asked if Council had any statistics on the injuries on that stretch of Southbrook Road compared to other roads in the Waimakariri District. D Young noted that there had been quite a number of accidents on Southbrook Road, there were around 16 in the last five years, however, there had not been many involving cyclists.

In response to a question by J Goldsworthy, D Young recapped the many different cycle routes that were explored and the key contributing factors from those. He noted that staff discussed a wide range of routes with the Community Boards in various workshops. Subsequently the Walking and Cycling Reference Group, of which the Board was a member, suggested that the Council proceed with public consultation. Staff held a special workshop with the Board specifically to discuss the options for southern Rangiora. At that workshop the Board was presented with seven options with various criteria and weightings for the Board's consideration. All of the routes had nine to ten different criteria that they were assessed against safety, amenity value, likelihood that cyclists would use the route, costs, and other particular impairments that might be in place. After the workshop, the Board agreed to seek community feedback on the preferred route.

J Goldsworthy enquired if the concerns regarding Railway and Station Roads had significantly altered the initial assessment of the route. D Young explained that there had been quite a bit of comment and criticism about this particular route, and staff therefore re-evaluated the route, however, they found their original assumptions remained valid considering the costs and available timeframes. Staff also reconsider whether the residual risk was an acceptable outcome, and concluded that with the changes at Marsh Road, in particular the one way on Railway Road, they believed that the identified risks were of an acceptable nature that they felt comfortable recommending to the route to the Board.

K Barnett appreciated the work that had been done, however, sought clarity on the purpose of the cycleway. She, therefore, asked staff to explain the Transport Choices Programme. D Young highlighted that the Transport Choices Programme had three categories of funding, namely the walking neighbourhoods, safe green, and healthy school travel. The Council had applied for funding all three categories, as the Council would be spending money around Southbrook School and on a range of additional walking links. This particular route was part of the strategic cycle networks, which aimed to link main cycle routes or destinations.

K Barnett noted that cyclists who cycled between Rangiora and Kaiapoi along the Passchendaele Path were coming straight down Southbrook Road. The only people that used Southbrook Road for commuting were experienced cyclists. She questioned if this did not suggest that the Council was developing the alternative route for less experienced cyclists, thereby making a recreational route. D Young noted that was a fair assumption and staff were not asserting that the alternative route would replace the Southbrook Road cycle lanes which would remain.

R Brine asked if staff had done any data on how much time using the alternative route would add to cyclists' journey and D Young noted that they had and it was minimal.

P Williams expressed a concern about the acceptable risks mentioned by staff and D Young confirmed that an independent safety audit done on the route.

J Ward noted that the proposed route would enable people to cycle safely through Southbrook and not be faced with the 26,000 cars that used Southbrook Road daily. This route had been developed over several years to accommodate everyone. It was about safety and encouraging people, to travel safely through Rangiora. D Young agreed that the main advantage was that the Council was offering another option for the less confident cyclists through Southbrook.

Moved: S Wilkinson Seconded: I Campbell

THAT the Rangiora-Ashley Community Board:

(a) **Receives** Report No. 230919145813.

(b) **Declines** endorsing the detailed design and recommend to the Council that the cycleway does not proceed.

LOST

S Wilkinson commented that he supported the overall Walking and Cycling Strategy, however, he was struggling with supporting this section of the bigger strategy. He did not believe that the Board had been provided with a strong enough business case to support this part of the cycleway strategy, particularly in relation to the safety issues. The Board was advised that one of the reasons for the new route was that the current route along Southbrrok Road was dangerous, despite the fact that the accident statistics did not support this and despite the fact it was deemed dangerous for cyclists it would remain open for use. He noted that the proposed alternative route had some significant dangerous elements as outlined in feedback from the school and several businesses in the area.

S Wilkinson expressed a concern about this discretionary expenditure in a time when communities were in a cost of living crisis, and ratepayers were suffering. The Council at its previous meeting highlighted the significant underbudgeted expenditure of $3 million to $4 million on the repair and maintenance of essential infrastructure, most of which was to be borrowed. He did not believe that the Council should borrow additional funding for a project such as this. S Wilkinson noted that he had spoken to four potentially affected business owners in the area and a resident. He also attended the drop-in session to gauge community feedback and he was not convinced that this project carried the community support that the Board might think. The key concerns of the people he spoke to were the unresolvable safety issues with the proposed new route, that the funding may be best spent elsewhere, the loss of carparks and the belief that the consultation process was obsolete.

I Campbell commended staff on their time and effort and their re-evaluation of this project. However, the Board was obliged to present the voice and interests of the community and there had been a considerable amount of opposition from the community to this Railway Road section and the cycle way. There were risks and inconveniences with the proposed route that had been outlined by residents, KiwiRail, Southbrook School, affected businesses and also by cyclists. He believed that the Board were being requested to rush the approval of the Design for Project 2, with known risks, just to secure the Central Government's part of the funding.

I Campbell believed that it may be more prudent to initiate budget for the proposed eastern-link cycleway. Vehicle traffic passing through Southbrook was slower now than ever due to the traffic lights and other contributing factors. Existing cycle lanes were clearly marked and catered for the small number of cyclists that use them. He suggested that the Council could rather consider sponsoring a Cyclist Training Scheme for less experience cyclists, which would be less expensive. This cost of the cycleway would be shared between our ratepayers and taxpayers many of whom were struggling in the current financial climate. In conclusion he noted that the Walking and Cycling Strategy was first endorsed in 2017 and New Zealand's economic situation was far worse now and the strategy may therefore need to be reconsidered.

K Barnett supported the motion, as she felt that this was a recreational route that would not lead to a decrease in commuter vehicular traffic. She suggested that the Council needed to be focusing on funding public transport to reduce the load on the roads. She was also concerned about the safety, as it was a commercial area with heavy vehicles,

PAK'nSAVE traffic and rat running. She was therefore concerned about the unintended consequences of the cycleway.

K Barnett was also concerned about the loss of car parks which would force staff from businesses in the area to park in poorly lit areas which may be unsafe. She agreed that that the economic situation of the country had changed since 2017 which the Council needed to take into consideration. She commented that it was an unattractive recreational route, that would not showcase Rangiora very well. It would be far better to do a shared path straight past Mitre 10 coming into the gateway of Rangiora and then onto Coronation Street. There was very little foot traffic in Coronation Street so why not use it for cyclists and install traffic lights for cyclists at the Flaxton Road crossing. K Barnett commented that cyclists should not be moved away from Rangiora's main entrance ways we should just be making the route safer.

Amendment

Moved: J Ward Seconded: R Brine

THAT the Rangiora-Ashley Community Board:

(a) **Receives** Report No. 230919145813.

(b) **Endorses** the proposed detailed design of the cycleway, as per Trim: 230915144615, for Project 2, Rangiora Town Cycleway.

AND

THAT the Rangiora-Ashley Community Board recommends:

THAT the Council:

(c) **Approves** the detailed design as per Trim: 230915144615, for Project 2, Rangiora Town Cycleway.

(d) **Notes** the Council had received 50 submissions which had been summarised as 26 generally in support, 22 in opposition for a number of reasons, and two blank.

(e) **Approves** the installation of no stopping lines required as per the following schedule, noting that these would be added to the Council's Schedule of Parking Restrictions upon completion:

i.	Railway Road	West	Outside 642 Lineside Road (southern end)
ii.	Railway Road	West	Outside 642 Lineside Road (northern end)
iii.	Railway Road	West	Outside 16 Railway Road
iv.	Railway Road	West	Outside Allied Concrete 20
v.	Railway Road	East	Angle parking south of Dunlops Road
vi.	Railway Road	East	For 10m north of Dunlops Road (extending existing by 5m) to improve sight lines at level crossing.
vii.	Torlesse Street	South	Outside No 36 Southbrook Road (Torlesse Street side)
viii.	Coronation Street	West	Cul-de-sac head
ix.	Country Lane	Both	South Belt to end of public laneway.
x.	South Belt	North	No. 7 King Street
xi.	South Belt	South	No. 99 37

(f) **Notes** that these changes would result in the loss of 29 carparks partly balanced by the addition of ten new carparks (leaving a nett loss of 19 carparks).

(g) **Approves** the removal of 12 street trees, noting they would be replaced with at least as many new street trees:

i. Railway Road East Outside Carters - To be replaced in kerb build out within carriageway.

ii. Railway Road East Outside Carters - To be replace in berm on western side of road.

iii. Railway Road East Outside Carters - To be replaced in kerb build out within carriageway.

iv. Railway Road East Outside Carters - To be replace in berm on western side of road.

v. Railway Road East Outside Carters - To be replaced in kerb build out within carriageway.

vi. Railway Road West Outside Pak n Save - To be replaced with new within buffer between footpath and roadway on eastern side of Railway Road.

vii. Railway Road West Outside Pak n Save - To be replaced with new within buffer between footpath and roadway on eastern side of Railway Road.

viii. Railway Road West Outside Pak n Save - To be replaced with new within buffer between footpath and roadway on eastern side of Railway Road.

ix. Railway Road West Outside Pak n Save - To be replaced with new within buffer between footpath and roadway on eastern side of Railway Road.

x. Railway Road West Outside Pak n Save - To be replaced with new within buffer between footpath and roadway on eastern side of Railway Road.

xi. Railway Road West Outside Pak n Save - To be replaced with new within buffer between footpath and roadway on eastern side of Railway Road.

xii. Coronation Street South No. 10 Coronation St - To be replaced west of Buckleys Road.

(h) **Approves** the installation of “STOP” priority control on Railway Road (northbound) at Station Road intersection, a “STOP” control on the west of the Marsh Road railway crossing, and removes the existing “STOP” priority control on Station Road (east bound) as per the proposed intersection design.

(i) **Approves** the implementation of one-way (northbound) on Railway Road for approximately 60 meters between Station Road, and the rear PAK’nSAVE entrance.

(j) **Notes** that feedback from the consultation process had been incorporated into the design where applicable.

(k) **Notes** that as a result of consultation, staff had made significant changes to the South Belt connection to King Street, relocating the crossing location to the western side of the intersection.

(l) **Notes** that this project would be funded through the "Transport Choices" funding stream (which was still subject to final signing and confirmation), and this requires that all works be complete by June 2025 (following a recent extension to the completion date), however construction would be programmed to be complete by December 2024.

(m) **Notes** that the deadline for the approval of the detail design and Schedule 2 agreement for funding had been extended to 30 October 2023, and that Waka Kotahi had signalled that failure to meet that deadline would result in no funding being available. Also funding for construction was dependent on and would not be released until these had been approved by Waka Kotahi.

(n) **Notes** that the detailed design drawings were subject to an Independent Road Safety Audit, and that this process was yet to occur. Further minor changes were likely to be required as a result.

(o) **Notes** that the KiwiRail SFAIRP process had confirmed that the installation of half-arm barriers at the Marsh Road, and Dunlops Road level crossings were not financially practicable, and therefore not required as a result of the proposed cycleway.

(p) **Notes** that the likely risk associated with projected usage of Marsh Road and Dunlops Road railway crossings would need reviewing as part of the Rangiora Eastern Link Project, which may lead to either closure, or half arm barriers being installed at that point.

(q) **Notes** that staff would proceed with the preparation of tender drawings, and documents in anticipation of receiving an approval to move to construction from Waka Kōtahi.

CARRIED

A division was called:

For: (8) J Gerard, R Brine, M Clark, M Fleming, J Goldsworthy, L McClure, B McLaren, and J Ward.

Against: (4) K Barnett, I Campbell, S Wilkinson, and P Williams.

Debate on the Amendment

J Ward commented that there had been quite a lot of emphasis on safety and the Council was trying to provide a cycleway that would be removed from Southbrook Road and would therefore be safer. The Council had worked very hard to address PAK'nSAVE's and other objectors' concerns. Full consultation and considerable planning had been undertaken by staff, who had done a great job with a tricky situation. She did not believe that cyclists should be made to compete with the 26,000 cars passing through Southbrook. J Ward noted that this was the missing link from the Passchendaele Memorial Path through to the rest of Rangiora. The Council was very lucky that 66% of the cycleway would be funded by Waka Kotahi. If Council did not take up this funding, Waka Kotahi would spend it elsewhere.

R Brine commented that it was concerning that Board members wished to disregard the advice of senior Traffic Engineers, who supported the updated design for Project 2. He noted that he would not support the original motion because the arguments heard were very ill considered. R Brine advised that he spent 41 years as a traffic officer, he knew how dangerous Southbrook Road was and he knew how scary it was as a cyclist and he therefore supported the amendment.

P Williams noted that Board members were concerned that Southbrook Road were too dangerous for cyclist because of the trucks and trailers and traffic. However, the

proposed route could place children onto a cycleway nearer to many trucks. He concurred that the Board had been provided with evidence from the Council's Traffic Engineers. However, PAK'nSAVE also provided evidence form traffic engineers, who found behind PAK'nSAVE to be dangerous. The owner of PAK'nSAVE were very concerned about the risk for his workers and therefore intended to take legal action against the Council if the cycleway proceeded. PAK'nSAVE also intended to start their deliveries at 5am because they felt that no one would be on the cycleway at that time.

P Williams expressed a concern about the drop-in session held at the Southbrook Rugby Club, which he was unable to attend, however, he had heard from a few people that they expected to be able to submit at that session, but they were not able to. In conclusion, he further commented that if the trees were removed it would take years for them to regrow unless they planted the same sized trees. He therefore did not support the amendment.

S Wilkinson endorsed Board Member P Williams comments regarding the objections from the owner of PAK'nSAVE.

J Gerard noted that the Board had supported the Council's Walking and Cycling Strategy from the start. The Board had also previously made it clear that they did not support cycleways along major roads, particularly Southbrook Road. When the Board submitted on the Council's 2022/23 Annual Plan, they urged the Council to prioritise funding for walking and cycleways, including these particular roads. J Gerard believed that there was a genuine safety risk in cycling along Southbrook Road. The Board had a responsibility to ensure the community was able to enjoy the facilities provided for them and he therefore supported the amendment.

J Goldsworthy supported the amendment because it was about enabling choice. If the Board wanted to enable and sponsor choice in the district, he encouraged members to support the amendment.

6.2. **Approval to Install No-stopping Restrictions at Multiple Locations in Rangiora – A Mace-Cochrane (Project Engineer) and S Binder- (Senior Transportation Engineer)**

S Binder spoke to the report, noting that there were several requests for no stopping lines that had arisen over the last several months within Rangiora. Chiefly along High Street, between the vehicle crossings of 2A Ayers Street and 364B High Street and various locations along Charles Upham Drive. S Binder elaborated on the locations of the proposed no-stopping restrictions.

P Williams sought clarity on the access to 2A Ayers and 364B High Streets as he understood that, under the District Plan, the properties were only allowed one access. He asked if the owners would have to apply for a resource consent to have two driveways if the no-stopping restrictions were approved. S Binder explained that the provision in the District Plan was applicable to new developments. However, as these were existing accesses it would not apply, if the properties were to redevelop then it would come in to play. P Williams enquired if 364B High Streets was a legal existing entrance way. S Binder could not confirm how long the driveway had been in use.

Furthermore, P Williams noted that some carparks were being removed and questioned if the carparks were currently being used and how their removal would affect the neighbours. S Binder noted that Charles Upham Village had plenty of on street parking demand for its staff which Council recognised as an issue, however, their staff tend to only park up to Elm Drive so the vast majority of the proposed no-stopping restrictions areas had very low or no use. The intent was to try get ahead of future development on the west side.

K Barnett questioned that if these were historic places built with historic driveways, why were the Council implementing a 2004 rule for sightlines. S Binder explained that the Council did not use sightlines for no-stopping restrictions. He noted that the road user rule said that you were not allowed to park within one metre of a driveway.

Moved: P Williams Second: None

THAT the Rangiora-Ashley Community Board:

(a) **Receives** Report No. 230718108142.

AND

THAT the Rangiora-Ashley Community Board recommends:

THAT the Utilities and Roading Committee:

(b) **Approves** the installation of the following no-stopping restrictions:

i. Charles Upham Drive at the following locations:

(1) 17m north of the Salisbury Avenue intersection on the west side.
(2) 28m north and 14m south of the Valour Drive intersection on the east side.
(3) Between Salisbury Avenue and Chatsworth Avenue intersections on the west side.
(4) Between Elm Drive and Chatsworth Avenue intersections on the east side.
(5) 30m south of the Chatsworth Avenue intersection on the east side.

LAPSED

Moved: K Barnett Seconded: R Brine

THAT the Rangiora-Ashley Community Board:

(a) **Receives** Report No. 230718108142.

AND

THAT the Rangiora-Ashley Community Board recommends:

THAT the Utilities and Roading Committee:

(b) **Approves** the installation of the following no-stopping restrictions:

ii. On the north side of High Street between the vehicle crossings of 2A Ayers Street and 364B High Street.

iii. Charles Upham Drive at the following locations:

(1) 17m north of the Salisbury Avenue intersection on the west side.
(2) 28m north and 14m south of the Valour Drive intersection on the east side.
(3) Between Salisbury Avenue and Chatsworth Avenue intersections on the west side.
(4) Between Elm Drive and Chatsworth Avenue intersections on the east side.

(5) 30m south of the Chatsworth Avenue intersection on the east side.

CARRIED

K Barnett agreed that the Board should know the rules and the development history of the area, however, she did not believe it materially changed the fact that it was dangerous to park between the vehicle crossings at 2A Ayers Street and 364B High Street. She was comfortable that the proposed no-stopping lines along Charles Upham Drive were sensible.

R Brine commented that he had been a regular visitor at Charles Upham Village and was therefore familiar with the existing parking in the area. He agreed with Board Member Barnett and supported the motion.

P Williams supported the motion because his previous concerns were addressed by staff. He also assumed that staff would do due diligence and confirm the driveway was legal.

6.3. **Approval to Change the Victoria Street 'Good Service Vehicles Only' Sign to a 'P15 Loading Zone' Sign – A Mace-Cochrane (Project Engineer) and S Binder- (Senior Transportation Engineer)**

S Binder noted approval was being sought to change the loading zone immediately adjacent to Coffee Culture Rangiora from a 'Good Service Vehicles Only' zone to a 'P15 Loading Zone.' The loading zone in front of Coffee Culture on Victoria Street had always been a loading zone, however, was currently signed as a 'Good Service Vehicles Only' which was very challenging to enforce.

Moved: J Ward Seconded: B McLaren

THAT the Rangiora-Ashley Community Board:

(a) **Receives** Report No. 230926152076.

AND

THAT the Rangiora-Ashley Community Board recommends:

THAT the District Planning and Regulation Committee:

(b) **Approves** changing the operation of the Victoria Street 'Good Service Vehicles Only' loading zone (adjacent to Coffee Culture) to a 'P15 Loading Zone.'

(c) **Notes** that this change only requires the installation of a new sign, and no amendments need to be made to the road marking.

CARRIED

J Ward and K Barnett supported the motion, and K Barnett commented that the change would not result in a change in operation of the loading zone and instead would allow for easier enforcement

6.4. **Approval to Install Stop Controls at various Intersections along Seddon Street, Rangiora – A Mace-Cochrane (Project Engineer) and S Binder- (Senior Transportation Engineer)**

S Binder advised that a review of all the intersections along Seddon Street had been undertaken, following concerns raised about safety at the intersections and visibility on the approaches. As none of the intersections met the required sight distance for a Give Way control, it was recommended that all the intersections be changed to 'Stop' controls.

K Barnett noted that she drove along Seddon Street and with the exception of West Belt, none of those intersections seemed more dangerous than half of the intersections in Rangiora that were uncontrolled give ways.

Staff had noted that the Board previously approved the installation of a stop control at the Seddon and King Streets T-intersection. Now further concerns have been raised about the remaining intersections along Seddon Street. K Barnett asked if the Council was setting a dangerous precedent, if it was installing stop controls on not busy/ no exit roads, without a policy to ensure consistency for the whole Rangiora. S Binder explained the Council did not have the resources to evaluate intersections on a regular basis, so they were typically evaluated when a service request was received. The Council did not have a policy on establishing stop controls because the Traffic Control Devices Manual sets the National expectation for that. He acknowledged that there were probably many intersections across the district that did not meet the required sight distance and visibility on approach.

Also, K Barnett questioned if the wider community had been consulted about the implementation of the proposed stop controls, as Ashgrove School was on Seddon Street and parents traveling to school would be affected. She also enquired if the school had been consulted. S Binder noted that Council had not spoken with the school. He highlighted that the stop controls would only make a three or four second difference on travelling time.

P Williams asked for the accident statistics at the intersections on Seddon Street. S Binder advised that the Council was trying to proactively address risks before accidents happened. However, in the past 20 years there had been crashes at intersections along the corridor. He did not consider this to be a high risk corridor due to the lower speeds and volumes.

I Campbell noted the legal difference imposed on a driver between a stop sign and a give way. If you did not come to full stop at a stop sign you committed a $150 offence. S Binder acknowledged that the Council was aware of the consequences of installing stop controls.

Moved: S Wilkinson Seconded: R Brine

THAT the Rangiora-Ashley Community Board:

(a) **Receives** Report No. 230707102697.

(b) **Approves** the intersection control changes shown in Table 1, pursuant to Section 2 of the *Land Transport Rule: Traffic Control Devices 2004* and with effect from the date of installation of the appropriate signage.

Table 1. Details of intersection control changes.

Side Road to be Controlled	Road to Remain Uncontrolled	Type of Control to be Imposed	Type of Control to be Revoked
Seddon Street	Ayers Street	Stop / Stop	Give Way
Seddon Street	White Street	Stop / Stop	Give Way
Seddon Street	Kinley Street	Stop / Stop	Give Way
Seddon Street	Ashgrove Street	Stop / Stop	Give Way
Seddon Street	West Belt	Stop	Give Way

(c) **Circulates** this report to the Utilities and Roading Committee for their information.

(d) **Notes** the existing road with priority will remain unchanged to avoid confusion, and it is the control only at the intersection which is to be changed.

CARRIED

A division was called:

For: (7) J Gerard, R Brine, M Clark, L McClure, B McLaren, J Ward, and S Wilkinson.

Against: (5) K Bernett, I Campbell, M Fleming, J Goldsworthy, and P Williams.

S Wilkinson advised that he had suggested to the Council that they consider installing stop controls along Seddon Street. He believed that the intersections were quite dangerous, and motorists needed to be aware that they needed to stop and pay attention. He therefore supported the motion.

R Brine agreed that there were other dangerous intersections in the district, and it was the Board's responsibility to bring them to the Council's attention.

He did not believe that the Board should rely on statistics to determine if an intersection was dangerous, because not all minor crash were reported. He supported making Rangioras streets safer and therefore supported the motion.

K Barnett did not support the motion due to a lack of consistency throughout Rangiora. Seddon Street was a quiet road, occasionally people used it as a cut through between some of the main roads. She commented that she might have supported a stop sign at the West Belt intersection because of the amount of traffic, as more controls were needed on most of the roads that entered West Belt and King Street. The Council had to be consistent because motorists needed to know what to expect while driving. K Barnett felt that if the Council installed stop controls on small suburban roads, it took away the seriousness of stop control.

I Campbell agreed with K Barnett, he thought it was taking the common sense away and motorists' discretion and it would lessen the impact of stop controls over time.

J Ward supported the motion and noted that a motorists would be required to stop for three seconds, allowing them to fully look both ways and were much safer.

P Williams also agreed with K Barnett and I Campbell and raised a concern that the financial implications of installing the stop controls had not been provided.

6.5. **Application to the Rangiora-Ashley Community Board's 2023/24 Discretionary Grant Fund – T Kunkel (Governance Team Leader)**

T Kunkel spoke to the report noting the Cust Districts Historical Records Society Inc were requesting a grant of $500 to purchase a tear drop flag to indicate to visitors when the museum was open. The Society had received a grant in April 2022 and the Council had received the required Accountability Form.

Moved: K Barnett Seconded: M Fleming

THAT the Rangiora-Ashley Community Board:

(a) **Receives** report No. 230907139328.

(b) **Approves** a grant of $500 to the Cust and Districts Historical Records Society Inc towards the purchase of a teardrop flag and spike base.

CARRIED

K Barnett noted that the Society's members were all volunteers who were dedicated to the Cust Museum. She therefore supported the motion.

M Fleming agreed with K Barnett and commented that a teardrop "Open" flag would show visitors when the museum is open. She therefore also supported the motion.

B McLaren suggested the society should consider a wall mounted bracket as the wind may knock over a plate base. He and P Williams likewise supported the motion.

T Kunkel noted that the North Loburn School was requesting funding to purchase EPro8 equipment for the students to participate in EPro8 challenges. The School currently hired EPro8 equipment and would prefer purchasing the electrical starter kit and spare fuses for the students rather than leasing them. EPro8 allowed for the breaking down complex tasks into parts and could therefore be used to bolster Science, Technology, Engineering and Mathematics (STEM) education. The school had provided confirmation that the Department of Education did not fund EPro8 equipment.

Moved: J Ward Seconded: B McLaren

THAT the Rangiora-Ashley Community Board:

(c) **Approves** a grant of $910 to the Tihiraki North Loburn School for the purchase of EPro8 equipment.

CARRIED

J Ward believed that any programme that assisted with education was worthy of supported.

K Barnett commented that many rural schools did not receive much funding from the Ministry of Education. It was great to see the school investing in modern technology and she therefore supported the motion.

T Kunkel noted that the North Canterbury Swim Club had their annual Best Time Meet on 28 October 2023 and were requesting funds to purchase the ribbons that would be awarded to the young athletes. There were approximately 40 young athletes that would be participating.

Moved: J Ward Seconded: B McLaren

THAT the Rangiora-Ashley Community Board:

(d) **Approves** a grant of $795 to North Canterbury Swim Club towards the purchase of time ribbons.

CARRIED

J Ward believed swimming had to be encouraged and rewarded and she was therefore pleased to support the motion.

6.6. **2024 Rangiora-Ashley Community Board's Meeting Schedule – Thea Kunkel (Governance Team Leader)**

T Kunkel noted the proposed meeting schedule for 2024 was based on the current meeting schedule of the second Wednesday of the month.

Moved: B McLaren Seconded: P Williams

THAT the Rangiora-Ashley Community Board:

(a) **Receives** report No. 230915144150.

(b) **Resolves** to hold Community Board meetings in the Council Chambers, Rangiora Service Centre, commencing on Wednesdays at 7.00pm, on the following dates:

- 14 February 2024
- 13 March 2024
- 10 April 2024
- 8 May 2024
- 12 June 2024
- 10 July 2024
- 14 August 2024
- 11 September 2024
- 9 October 2024
- 13 November 2024
- 11 December 2024

CARRIED

7. CORRESPONDENCE

J Gerard noted that he had received a letter from Trevor Wright, who first raised the idea of establishing the Milton Reserve arboretum. T Wright would like the trees in the arboretum to have their botanical name attached. He was concerned about people walking their dogs through the arboretum as he believed that it needed to be a place for families to enjoy without the worry of dogs.

P Williams thought that there were no dogs allowed in reserves. S Hart noted that there were some Council reserves where dogs where prohibited, however, he did not believe that it applied to all reserves.

M Fleming suggested that the Board should consider allowing dogs on leads in the arboretum due to the dog park next door.

K Barnett noted that the Board needed to be thinking to the future when the arboretum would be well established. The issue was that it was a natural pathway between Cones Road where people sometimes parked and walked down to the picnic area.

P Williams thought that the Board needed to think about it now because dogs urinating on trees could kill them. He noted that the dog park was well used.

The Board called for a staff report on the matter.

Moved: J Gerard Seconded: K Barnett

THAT the Rangiora-Ashley Community Board:

(a) **Receives** letter form Trevor Wright, about dogs the Milton Reserve arboretum.

(b) **Requests** staff to submit a report to the Board regarding allowing dogs the Milton Reserve arboretum.

CARRIED

8. CHAIRPERSON'S REPORT

8.1. Chair's Diary for September 2023

Moved: J Gerard Seconded: K Barnett

THAT the Rangiora-Ashley Community Board:

(a) **Receives** report No. 231004156399.

CARRIED

9. MATTERS FOR INFORMATION

9.1. Kaiapoi-Tuahiwi Community Board Meeting Minutes 21 August 2023.
9.2. Oxford-Ohoka Community Board Meeting Minutes 6 September 2023.
9.3. Woodend-Sefton Community Board Meeting Minutes 11 September 2023.
9.4. July 2023 Flood Response - Emergency and Immediate Works Expenditure – Report to Council Meeting 5 September 2023 – Circulates to all Boards.
9.5. Moving Forward: Waimakariri Integrated Transport Strategy 2035+ Draft for Consult – Report to Council Meeting 5 September 2023 – Circulates to all Boards.
9.6. Establish Rangiora Civic Precinct and Library Extension Project Steering Group – Report to Council Meeting 5 September 2023 – Circulates to Rangiora-Ashley Community Board.
9.7. District Regeneration - Annual Progress Report to June 2023 – Report to Council Meeting 5 September 2023 – Circulates to all Boards.
9.8. Re-establishment of Solid and Hazardous Waste Working Party – Report to Council Meeting 5 September 2023 – Circulates to all Boards.
9.9. Revocation Housing for the Elderly Policy – Report to Council Meeting 5 September 2023 – Circulates to all Boards.
9.10. Submission: Strengthening the resilience of Aotearoa NZs critical Infrastructure system – Report to Council Meeting 5 September 2023 – Circulates to all Boards.
9.11. Health, Safety and Wellbeing Report August 2023 – Report to Council Meeting 5 September 2023 – Circulates to all Boards.
9.12. Summary of Discretionary Grant Accountability 1 July 2022 to 30 June 2023 – Report to Oxford-Ohoka Community Board Meeting 6 September 2023 – Circulates to Rangiora-Ashley, Woodend-Sefton and Kaiapoi-Tuahiwi Community Boards.
9.13. Summary of Discretionary Grant Accountability 1 July 2022 to 30 June 2023 – Report to Woodend-Sefton Community Board Meeting 11 September 2023 – Circulates to Rangiora-Ashley, Oxford-Ohoka and Kaiapoi-Tuahiwi Community Boards.

9.14. Summary of Discretionary Grant Accountability 1 July 2022 to 30 June 2023 – Report to Kaiapoi-Tuahiwi Community Board Meeting 18 September 2023 – Circulates to Woodend-Sefton, Oxford-Ohoka and Rangiora-Ashley Community Boards.

9.15. Establish Rangiora Civic Precinct and Library Extension Project Steering Group – Report to Utilities and Roading Committee Meeting 19 September 2023 – Circulates to Rangiora-Ashley Community Board.

9.16. July 2023 Flood Recovery Progress Update – Report to Utilities and Roading Committee Meeting 19 September 2023 – Circulates to all Boards.

9.17. Transport Choices – New Footpath Programme for Approval – Report to Utilities and Roading Committee Meeting 19 September 2023 – Circulates to all Boards.

9.18. Amendment to Kerb & Channel Renewal Programme 2023/24 – Report to Utilities and Roading Committee Meeting 19 September 2023 – Circulates to all Boards.

9.19. Annual Report on Dog Control 2022/2023 – Report to District Planning and Regulation Committee Meeting 19 September 2023 – Circulates to all Boards.

9.20. Annual Report to the Alcohol Regulatory and Licensing Authority 2022/2023 – Report to District Planning and Regulation Committee Meeting 19 September 2023 – Circulates to all Boards.

Public Excluded

9.21. Proposed Sale of 136 Fishers Road, Okuku – Report to Council Meeting 5 September 2023 – Circulates to all Boards.

Moved: J Goldsworthy Seconded: L McClure

THAT the Rangiora-Ashley Community Board:

(a) **Receives** the information in Items.9.1 to 9.20.

(b) **Receives** the separately circulated public excluded information in Item 9.21.

CARRIED

10. MEMBERS' INFORMATION EXCHANGE

S Wilkinson

- Spent much time regarding the cycleway and conversations with members of the public.
- Attended the Business Awards, which were a great success. There were some fantastic businesses in the community. The feedback he had received from Enterprise North Canterbury was that it was the best one they had held yet. It was a great opportunity to showcase how good the businesses were in the district. A lot of these businesses had struggled over the last period.

M Clarke

- Attended the GreyPower meeting – because of the submissions the hospital had decided to put taxi chits at the orderly's office at the entrance which would be a lot better.
- Attended a drainage meeting – it was quite notable that they discussed several issues, one was all the drainage water going into the Southbrook Stream from the new development with the rest home. It concerned him that Council staff did not seem to know what was going on.

P Williams

- Attended Council Meetings – Councillors and staff was putting a lot of effort into the Council's 2024/34 Long term Plan, considering what they could and could not achieve. There would be a lot more time and effort put into that.
- Attended several drainage meetings – one of the issues that was highlighted during the Long Term Plan sessions was the Council's Risk Register. One of the top risks identified

was drainage around the district. It was very important because it seemed to be getting worse as there were more developments.

- Attended a Rangiora Airfield Advisory Group meeting.
- The Council lost their application for chlorine exemption, we no longer had a choice there would be chlorine going into the Rangiora water supply.

B McLaren

- Rangiora Museum Talk really interesting the next talk was on 26 October 2023.

I Campbell

- Attended the North Canterbury Business Awards. He was impressed with S Wilkinsons contribution. It was a great opportunity recognising the many small businesses in the district.
- Attended the Forest Fields Airfield 35th anniversary, which was attended by many people.

J Goldsworthy

- Attended the Community Outcomes Hearing – good debate between colleagues in providing clarity around the Council's four wellbeing's that they wanted to see developed in the district.
- The Council had launched the Rangiora Civic Precinct Steering Group to reevaluate where it wanted to go in the long term with the library and the civic precinct.
- Attended the first 'go live' for a Community Hub in the Sterling.
- Attended the Light Festival.

R Brine

- Attended several Council Briefing and Workshop sessions on the Long Term Plan.
- He was on the Greater Christchurch Partnership Hearing Committee, which had much to be considered.

L McClure

- Attended all Boards Briefing.
- Attended a meeting of the Rangiora Volunteer Fire Brigade.
- Attended Zoom meeting for Taumata Arowai Three Waters update.
- Attended the market in Victoria Park – nice to see some new stall holders.
- The Taxi Chits had come to a resolve at the hospital with the Waimakariri Health Advisory Group. They were also working in partnership with the Minibus Trust to help with possible travel.
- Demand for food banks was currently very high in the community.
- There was a housing forum being held on 18 October 2023.
- There was a shortage of nurses.
- After hour care challenges with reduced hours had seen an impact on Waimakariri and Hurunui.

J Ward

- Attended Audit and Risk Committee meeting.
- Attended the Sterling resident's afternoon tea.
- Tender openings lots of good tenders good to see contractors are out there looking for business and tendering with good prices. It would help inflation and keep capital expenditure in line with what Council budgeted for.
- Long Term Plan meetings.

- North Canterbury Sport and Recreation Board meeting.
- Rangiora Civic Precinct Steering Group meeting.
- Utilities and Roading Committee meeting.
- Visit to Belgrove to look at the infrastructure.
- Citizenship Cermeony it was a special day some families had been in the district 23 years.
- Rangiora Airfield Advisory Group meeting. Things were going well with the new manager.
- Chaired the Community Outcomes Hearing – quite a good day.
- Presentation from Kainga Ora which was very interesting.
- Attended the Business Awards – great night.
- Every week there were Long Term Plan Workshops – Council staff were getting feedback from Councillors. Some days they were tedious but were necessary.

M Fleming

- Waimakariri Access Group supported an inclusive sports day which included people from Christchurch. It was an excellent day.
- The Waimakariri Access Group sent a letter to three big businesses in the district to see if they could consider improving accessibility for people.
- Keep Rangiora Beautiful asking if there was an area that people wanted trees planted to beautify an area.
- Rubbish collection Keep New Zealand Beautiful Week.

K Barnett

- Attended Rangiora Promotions Networking event – Miles Dalton spoke about business conditions and what was happening. Business was very tight in some areas there was a lot of uncertainty.
- Constituates some people were concerned about the deferral of the speed limit review. It was commented that when Council sent out an invoice, they were called a debtor, the Chief Executive promised to review that. There how been more concerns about Coldstream Road and how messy it was.

11. CONSULTATION PROJECTS

11.1. Libraries Survey 2023

https://letstalk.waimakariri.govt.nz/libraries-survey

The Board noted the consultation project.

12. BOARD FUNDING UPDATE

12.1. Board Discretionary Grant

Balance as at 30 September 2023: $11,162.

12.2. General Landscaping Fund

Balance as at 30 September 2023: $27,370.

The Board noted the funding update.

13. MEDIA ITEMS

Nil.

14. QUESTIONS UNDER STANDING ORDERS

Nil.

15. URGENT GENERAL BUSINESS UNDER STANDING ORDERS

Nil.

NEXT MEETING

The next meeting of the Rangiora-Ashley Community Board is scheduled for 7pm, Wednesday 8 November 2023.

THERE BEING NO FURTHER BUSINESS THE MEETING CLOSED AT 8:27pm.

CONFIRMED

_____
Chairperson

_____
Date

WAIMAKARIRI DISTRICT COUNCIL

REPORT FOR DECISION

FILE NO and TRIM NO:	RDG-32-79-05 / 230516070310
REPORT TO:	RANGIORA-ASHLEY COMMUNITY BOARD
DATE OF MEETING:	8 November 2023
AUTHOR(S):	Kieran Straw – Civil Project Team Leader Don Young – Senior Engineering Advisor
SUBJECT:	Marshall Street Changes associated with Southbrook School Travel Plan
ENDORSED BY: (for Reports to Council, Committees or Boards)	General Manager / Chief Executive

1. SUMMARY

1.1. This report is seeking approval of the design to improve pedestrian connectivity and Pick-up / Drop-off parking in Marshall Street, as recommended within the Southbrook School, School Travel Plan.

1.2. The proposed changes include:

1.2.1. Installation of a footpath on the eastern side of Marshall Street to connect the two existing sections of footpath on the eastern side, immediately in front of the school.

1.2.2. Installation of a “watts profile” speed hump outside No. 33 Marshall Street.

1.2.3. Conversion of six on-street car parking spaces (between No. 25 – 29 Marshall Street) to P15 between the hours of 8:00am - 9:00am, and 2:30pm – 3:30pm on School Days. This is to ensure these spaces remain available for parents to use for Pick-up / Drop-off parking.

1.2.4 Update the existing P5 signage on Denchs Road to be P5 which is currently restricted to 2:30 – 3:30pm only to be between the hours of 8:00am – 9:00am, and 2:30pm – 3:30pm on School Days

1.3. Two on-street car parking spaces in Marshall Street will need to be removed to accommodate the footpath connection north of the existing angle parking.

1.4. This work is in addition to the recent upgrades and changes in Denches Road that was completed as part of the Southbrook / Torlesse Street signals project.

1.5. The scheme design has been through a safety audit process and has been updated to include recommended changes as considered appropriate.

Attachments:

i. School Travel Plan (Trim no. 220817141870)
ii. Scheme Design (Trim no. 230821128425)
iii. Letters to Resident - redacted (Trim no. 230905137472)
iv. Correspondence with Southbrook School (Trim no. 230829133221)
v. Request from Rangiora New Life (Trim no. 230908140380)

2. RECOMMENDATION

THAT the Rangiora Ashley Community Board:

(a) **Receives** Report No. 230516070310.

AND

THAT the Rangiora-Ashley Community Board recommends:

THAT the Utilities and Roading Committee:

(b) **Approves** the scheme design (Trim: 220817141870).

(c) **Approves** the removal of two on-street car parks on the eastern side of Marshall Street (opposite No. 33) to accommodate the proposed footpath connection.

(d) **Notes** that the scheme design has been developed in conjunction with Southbrook School, as part of the development of the School Travel Plan, and that the proposed layout has been subject to an independent Road Safety Audit.

(e) **Notes** that this project is funded through the "Transport Choices" funding stream, and this requires that all works is complete by June 2024.

AND

THAT the Rangiora-Ashley Community Board recommends:

THAT the District Planning and Regulation Committee:

(f) **Approves** the implementation of limited time parking on the eastern side of Marshall Street immediately outside the school (between angle parking and the Torlesse Street intersection), with restrictions applying "Monday to Friday" (including School Holidays, and between 8:00am – 6:00pm) as follows:

"P5 Pick Up / Drop Off Only Monday to Friday"

(g) **Approves** the implementation of limited time parking on the western side of Marshall Street (No. 25 – 29), with restrictions applying during school days / hours as follows:

"P15 8:00am – 9am 2:30pm – 3:30pm School Days"

(h) **Approves** the amendment of existing P5 parking restrictions on Denchs to include the morning pick-up / drop off times (currently restricted for afternoons only), with restrictions applying during school days / hours as follows:

"P5 8:00am – 9am 2:30pm – 3:30pm School Days

(i) **Notes** that staff will update the Schedule of Parking Restrictions upon completion of the works.

(j) **Notes** that there is an existing mobility park on Marshall Street outside Southbrook School that is not currently on the Schedule of Parking Restrictions. This will be added to the schedule in conjunction with the other proposed parking restrictions associated with this report.

3. BACKGROUND

3.1. The Innovating Streets trial with Waka Kotahi installed temporary crossing points along Marshall Street and painted roundabouts at intersections with Denchs Road and Torlesse Street. While no changes were made to traffic directions on Marshall Street, right turns from Denchs Road to Southbrook Road were banned under the trial.

3.2. The project to signalise the intersection of Southbrook Road and Torlesse Street also included provision to carry out school safety works on Denchs Road, and Marshall Street which resulted in a one-way movement these streets, exiting on to Torlesse Street.

3.3. The Road Safety Audit (RSA) for the traffic signal project recommended that a School Travel Plan (STP) be implemented for the Southbrook School.

3.4. Previous report (Trim 220808134686) sought approval of the School Travel Plan, and authorised staff to meet with the school to implement the plan, which was prepared by Abley Transportation consultants.

3.5. Previously, the Pick-up / Drop-off location for Southbrook School was located on Torlesse Street. To promote the use of the one-way system, this was temporarily relocated into Marshall Street while the permanent solution was developed.

3.6. Waka Kotahi's Transport Choices programme funding has been approved to support lower speeds and reduce conflicts and risk on streets around Southbrook School as part of the "Safe, Green and Healthy School Travel" category. The (estimated) $100,000 project is intended to formalise some of the changes trialled with the Innovating Street programme, as well as separate and improve staff carparking, parent drop-off/pickup, and walking/cycling access to the school.

3.7. In addition to the works planned on Marshall Street, the Rangiora New Life School have submitted a service request relating to the existing restricted time parking in Denchs Rd. Staff have considered this request, and are seeking to implement the requested changes in conjunction with the Marshall Street works.

4. ISSUES AND OPTIONS

4.1. Staff, as part of the Southbrook School Travel Plan Working Group, considered the following options for the Pick-Up / Drop-off location for Southbrook School:

4.1.1. Railway Road (north of Torlesse Street).

This option is not recommended as Railway Road north of Torlesse Street is "no exit" and therefore would result in parents conducting "U-turns" in order to exit. There is also a high likelihood that parents would continue to use either Torlesse Street or Marshall Street rather than Railway Road.

Further to the above, there is limited space in Railway Road, and this option would require the piping of the open drain.

4.1.2. Torlesse Street (Marshall Street to Railway Road)

This option reinstates the original Pick-up / Drop-off area outside the school; however this was recommended to be relocated to Marshall Street to promote the use of Denches Rd and Marshall Street as a one-way circuit, and allows drivers easy access back to Southbrook Road via the traffic signals.
Reinstating the Pick-up / Drop-off on Torlesse Street does not promote the one-way circuit and would lead to parents either conducting "U-turns" to access Southbrook Road via the traffic signals, or continuing along Railway Road, and accessing Southbrook Road via the PAK'nSAVE Car park.

4.1.3. Marshall Street (retain interim solution)

As part of the Southbrook signalisation project, an interim Pick-up / Drop-off area was marked on Marshall Street behind the angle parking. To mitigate the concerns of the Pick-up / Drop-off behind the angle parking, the school have instructed their staff to use this parking, leaving the angle parking on Torlesse Street available for visitors. This reduces the likelihood of conflicts within the area behind parked vehicles.
This option however is still not recommended due to the potential conflict between reversing vehicles and vulnerable pedestrians, and the lack of footpath outside the school at this location.

4.1.4. Marshall Street Alternate Design (recommended option)

This option reduces the length of the Pick-up / Drop-off area on the eastern side of Marshall Street to eliminate the conflict area behind the angle parking. To help

off-set the reduction in area available for use, the proposed design allocates limited time parking on the western side of Marshall Street for those parents that wish to park and walk their child into the school.

The recommendations from the Abley School Travel Plan indicate 6 – 8 parks should be adequate for a Pick-up / Drop-off area. The proposed design allows for 6 x high-turnover Pick-up / Drop-off spaces (Parking for 5 minutes), and further 6 x P15 parking spaces for this purpose.

Further to this, the recommended option relocates the angle parking away from the school building to allow for a footpath connection, and also a new length of kerb and channel and footpath to connect to the existing footpath, north of the school.

4.2. There are implications on community wellbeing by the issues and options that are the subject matter of this report. The proposed changes help promote active transport options to the Southbrook School by providing additional footpaths to the school, while promoting safe driver behaviour within the designated children pick-up / drop-off area on Marshall Street.

4.3. The Management Team has reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. Mana whenua

Te Ngāi Tūāhuriri hapū are not likely to be affected by or have an interest in the subject matter of this report.

5.2. Groups and Organisations

There are not groups and organisations likely to be affected by, or to have an interest in the subject matter of this report.

The Southbrook School has representatives within the Southbrook School Travel Plan Working Group, and have provided feedback on the recommended option, which has been taken into consideration and changes made to the design.

For the changes on Denchs Road, there is no impacted residents, and this change will ensure these parks are kept free for pick and drop off associated with the school, and ensure parks are available for the pre-school during other times. There are no impacted residents on Denchs Rd.

5.3. Wider Community

The wider community is not likely to be affected by, or to have an interest in the subject matter of this report, however the residents directly opposite Southbrook School on Marshall Street were approached to seek their feedback in relation to the proposed restricted time parking outside their properties.

Two property owners did not have any concerns with the proposal, while the third was issued letters (attachment iii). The first letter provided a date to respond, and the owner did not made contact. A second follow-up letter was also issued.

6. OTHER IMPLICATIONS AND RISK MANAGEMENT

6.1. Financial Implications

There are financial implications of the decisions sought by this report.

This project has a cost estimate of $86,000.

There is budget of $150,000 within PJ 102126.000.5133. There is sufficient budget for the works to proceed to tendering upon acceptance of the design.

6.2. **Sustainability and Climate Change Impacts**

The recommendations in this report do have sustainability and/or climate change impacts.

The inclusion of the footpath extension will help to promote the use of active transport modes for children to walk to school.

6.3 **Risk Management**

There are risks arising from the adoption/implementation of the recommendations in this report.

Staff approached all impacted residents on Marshall Street to discuss the parking restrictions outside their properties. As a result of this, the length of restricted parking proposed was reduced.

There was a resident that staff could not get hold of. Staff sent two letters to this resident (attachments iii and iv) and still received no response.

6.3 **Health and Safety**

There are and safety risks arising from the adoption/implementation of the recommendations in this report as the existing interim Pick-up / Drop-off location is located behind the angle parking which poses a significant hazard to children who may be standing or walking behind parked vehicles. At present, this risk is mitigated by ensuring staff use this parking area so that there should not be manoeuvring vehicles during pick-up and drop-off times.

The proposed design separates the pick-up / drop off parking, removing it from behind the angle parking. Regardless, children may still be moving about these areas and as such there will be a remaining risk.

Staff, following discussions with Waka Kotahi, had proposed to update the angle parking to reversing in (rather than the current layout included within the scheme design for approval). Reverse angle-parking is considered to be much safer as drivers will have visually checked the parking space is clear before reversing into in, so they will know there is no children behind the vehicle. A driver reversing out of a park is less likely to have physically checked behind their vehicle before getting into their car and reversing out of a parking space, and instead rely on a reversing camera or mirror to check the space behind their vehicle which has significant safety drawbacks.

The school Principal and Board discussed this alternative and have advised they did not support this and would prefer the angle parking to remain as it is now, requiring drivers to reverse out of the parking space. The proposed design therefore retains the angle parking on the existing angle (i.e forwards in, reverse out).

It should be noted that the angle parking, and the issue of reversing in vs reversing out, was not raised within the independent Road Safety Audit.

7. CONTEXT

7.1. **Consistency with Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. **Authorising Legislation**

Local Government Act 2002

7.3. **Consistency with Community Outcomes**

The Council's community outcomes are relevant to the actions arising from recommendations in this report.

There is a safe environment for all

- Harm to people from natural and man-made hazards is minimised.
- Crime, injury and harm from road crashes, gambling, and alcohol abuse are minimised.

Transport is accessible, convenient, reliable, and sustainable.

- The standard of our District's transportation system is keeping pace with increasing traffic numbers.
- Communities in our District are well linked with each other, and Christchurch is readily accessible by a range of transport modes.

7.4. **Authorising Delegations**

The Community Boards are responsible for considering any matters of interest or concern within their ward area and making a recommendation to Council.

The Utilities and Roading Committee have the Delegations to accept this report, and approve the changes proposed outside Southbrook School, while the District Planning and Regulation Committee have the Delegations to accept this report and approve the time restricted parking zones.

School Travel Plan – Southbrook School

BOT Draft - 20 June 2022

Southbrook School
Mātauranga, Āhuatanga, Whanaungatanga

Contents

Tables

Figures

Appendices

Appendix A. Travel Survey Template

School Travel Plan – Southbrook Primary School

Quality Assurance Information

Prepared for	Waimakariri District Council
Job Number	WMKDC-J111
Prepared by	Daisy-Bea Scrase, Graduate Transportation Planner
Reviewed by	Penny Gray, Principal Transportation Engineer

Date issued	Status	Approved by
3 June 2022	Draft	Penny Gray, Principal Transportation Engineer
22 June 2022	Draft BOT	Penny Gray

1. Introduction

1.1 Why develop a school travel plan?

Travel plans encourage safe, healthy, and sustainable travel options. By reducing car travel, travel plans can improve health and wellbeing, free up car parking spaces, reduce congestion on the roads, and make a positive contribution to the community and the environment.

Southbrook Primary School have engaged with Waimakariri District Council and Ableyto create a travel plan which will help the students use more active modes and reduce congestion around the school.

There are a number of roading works planned for the roads around Southbrook School that will significantly change how people access the school site. It is proposed that Torlesse Street / Southbrook Road will become a signalised intersection. This will create new signalised crossing points across Southbrook Road which will allow better crossing opportunities. It will also be easier for drivers to turn right out of Torlesse Street. As part of this upgrade, Denchs Road and Marshall Street will become one-way streets. This will change the circulation of vehicles around Southbrook School.

1.2 The Southbrook Road / Torlesse Street Intersection Project

Southbrook Road is the busiest road in Rangiora and the Waimakariri District Council are focused on improving safety for all road users along this corridor. The projects focus is on improving the safety for children and cyclists, managing traffic flow and improving access onto side streets.

To improve safety in the area the Southbrook Road, Torlesse and Coronation Street intersection, which is heavily used by school traffic, will change to a signalised intersection. The signalised intersection will allow traffic from Torlesse and Coronation Street to safely turn left and right onto Southbrook Road.

As part of this project Denchs Road and Marshall Street will become one way. This will change the flow of traffic around the school and allow more on-street parking. A new drop off and pick up (PUDO) area can be installed on Marshall Street on the school side. It is hoped that this zone will become an attractive drop off zone to use and the use of the Torlesse Street PUDO zone will decrease. A raised courtesy crossing will be installed across Marshall Street and Torlesse Street to help children safely cross the roads to school.

Key changes for Southbrook School include;

- Denchs Road and Marshall Street becoming one way.
- Removal of kea crossing on Southbrook Road. The signalised pedestrian crossings at the Torlesse St/Southbrook Road intersection will provide students with a safe place to cross.
- Raised courtesy crossing on Marshall Street near Torlesse Street intersection
- New PUDO created on Marshall St

1.3 Our School

Site Location

As shown in Figure 1-1, the school site is located in Southbrook, on the south side of Rangiora. The site is located south of South Belt; east of Southbrook Road; north of Torlesse Street and west of the railway line.

Figure 1-1 Site Context

1.4 Number of staff and students

Southbrook Primary has approximately 310 students from new entrants to year 8 and 29 staff on site. Figure 1-2 shows that the catchment area for the school, although out of zone enrolments are considered on an application basis. Due to the catchment area extending into the semi-rural areas it is expected that some students will travel along roads with limited pedestrian or cycle infrastructure.

Staff generally come from the wider Canterbury area.

Figure 1-2 School Catchment Area

2. Travel Choices

Walking / Cycling / Scooting to School

Walking, cycling and scooting to school are the healthiest and cheapest ways for children and accompanying adults to travel to school. Walking, scooting and cycling to school will be promoted through the travel plan. Due to the location of the school a number of children walking/cycling/scooting to school will need to cross busy roads with high traffic volumes. It is important that parents, caregivers and school staff educate children to have safe crossing practices.

The roads surrounding Southbrook School have mainly good footpaths for walking and scooting. The key roads are Southbrook Road, Denchs Road, Marshall Street and Torlesse Street as shown in Figure 2-1. There are marked cycle lanes on Southbrook Road but there are no other cycling facilities in the surrounding area. The cycle lanes on Southbrook Road would only be suitable for confident cyclists to use, given the high traffic volumes, parked cars and turning movements from the side roads. Additional cycle infrastructure for the interested but concerned cyclists would be better suited for encouraging primary school children to cycle to school.

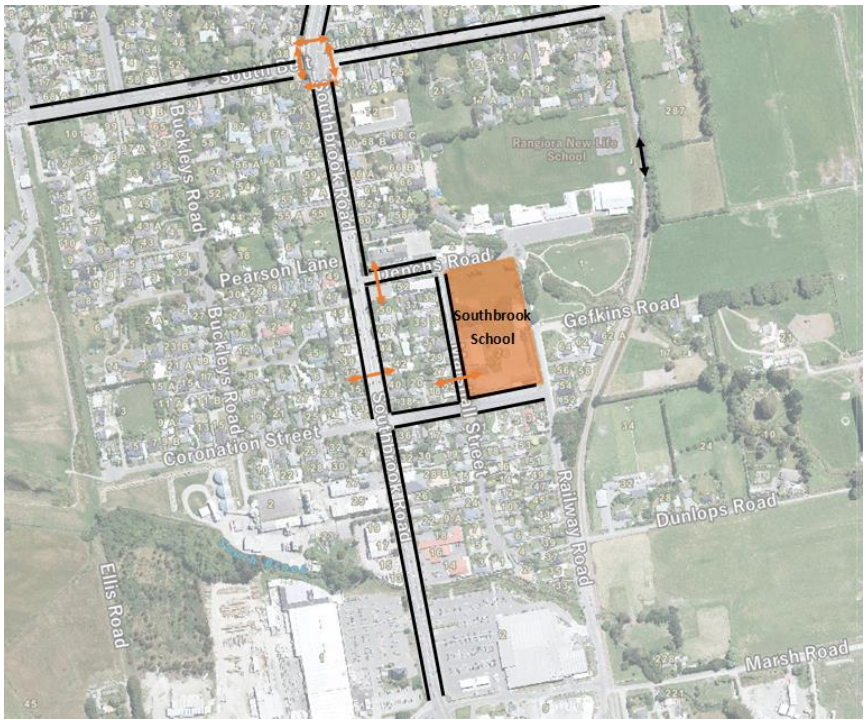


Figure 2-1 Local pedestrian facilities

Southbrook School has four pedestrian access points as shown in Figure 2-2. The entrances off Marshall Street and Torlesse Street are the main entrances to the school. The entrance off Gefkins Road is mainly used by new entrants.

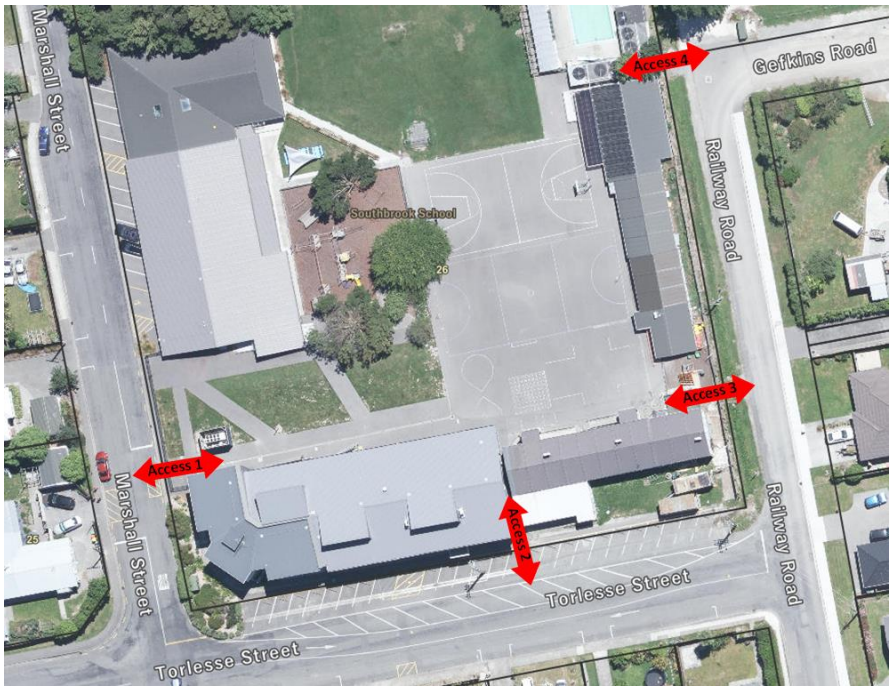


Figure 2-2 School Access for Pedestrians/Bicycles/Scooters

Cycle and Scooter Parking

Presently there is sufficient cycle and scooter parking at the school. In the future this may need to be reviewed if cycle and scooting significantly increases.

Car Parking/Vehicle Drop-off Provision

There is a dedicated PUDO zone on Torlesse Street that allows for informal drop off behind staff car parking, as shown in Figure 2-3. Marshall Street and the rest of Torlesse Street have on street parking with no time restriction and are used for school pick up and drop off.

Figure 2-3 Torlesse Street PUDO

With the changes to the surrounding road network a new PUDO can be created on Marshall Street. It is hoped that this new PUDO area will decrease the use of the Torlesse Street PUDO.

Buses

There is no school bus service to Southbrook School but there is one public bus, Route 1 which runs from Rangiora, down Southbrook Road to Christchurch (Figure 2-4). There is a bus stop on Southbrook Road approximately 300m from the school. However, school buses use this area as New Life School has school buses.

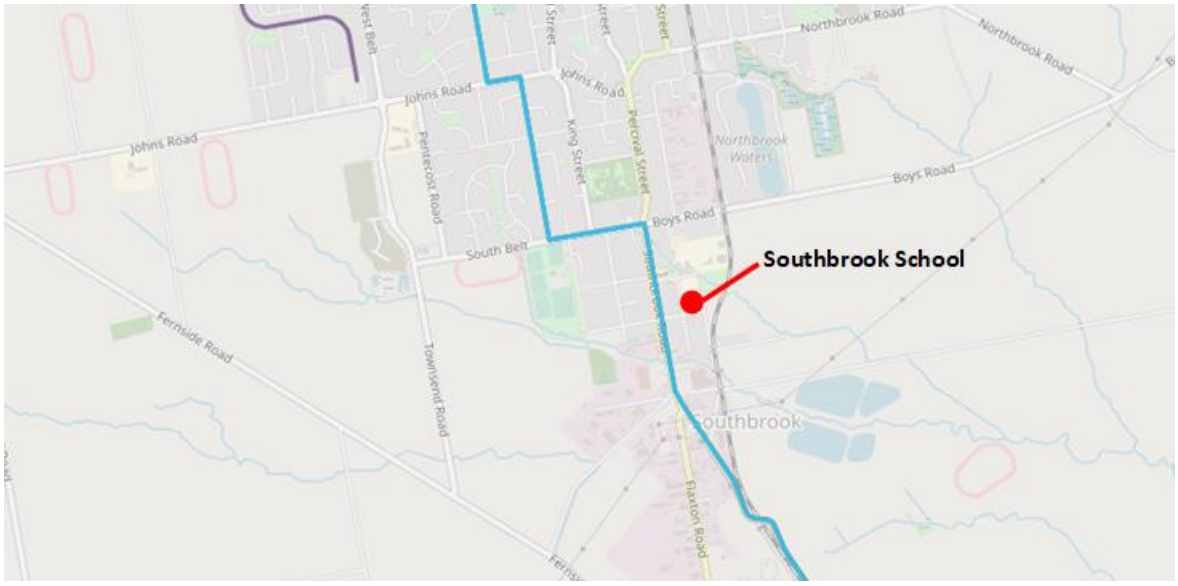


Figure 2-4 Bus routes near Southbrook School

Park and Walk

Creating a safe environment outside of the school entrance is paramount to encouraging more walking, scootering and cycling to the school. If children arrive by car, parents and caregivers should be encouraged to park further away from the school entrance and complete the journey on foot with their children walking, cycling or scooting. This has the benefits of avoiding driving and stopping around the school gates at the busiest times of the day while introducing physical activity in everyone's routine.

3. Travel Survey

3.1 How do we currently travel?

In May 2022 parents and caregivers were asked to partake in an online travel survey. A total of 57 people completed the survey accounting for 96 Southbrook School students (31% of school roll). Of the survey respondents there was relatively equal representation across the school year groups. All survey respondents were asked to indicate which area they live within. As seen in Figure 3-1 many students live in area 6 and out of zone to the north. This shows that many students have to cross South Belt or Southbrook Road on their way to and from school.

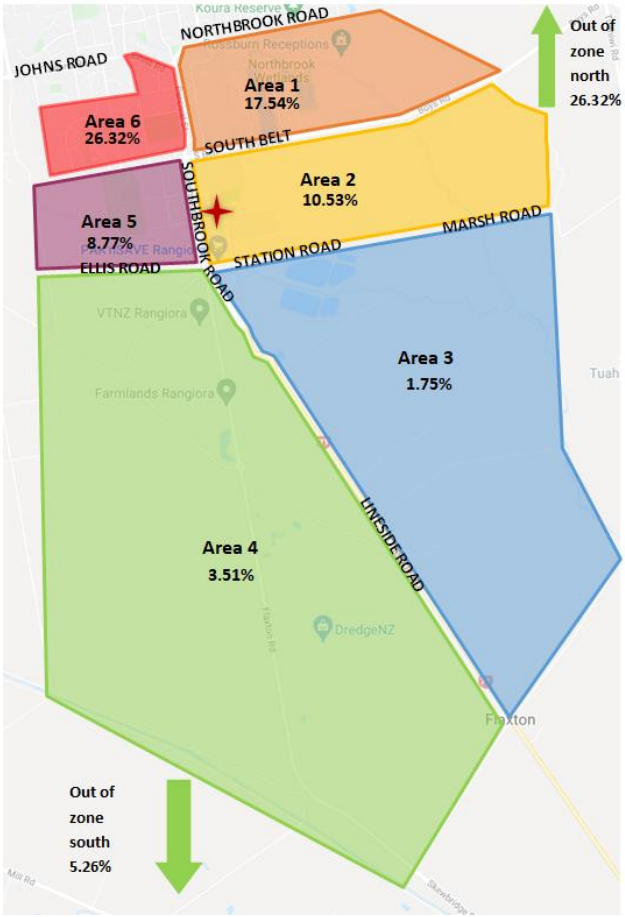


Figure 3-1 Where Southbrook School students live

3.2 Getting to and from school

Throughout the school week the mode of transport generally is the same for students at Southbrook, as shown in Figure 3-2.

The predominant transport mode to school is the car. The results show an average of 64% students get dropped to school by car each day. The results showed a good uptake in walking with an average of 17% of students walking each day. Public transport use is low which is to be expected for this size of town with limited public transport and the school age group.

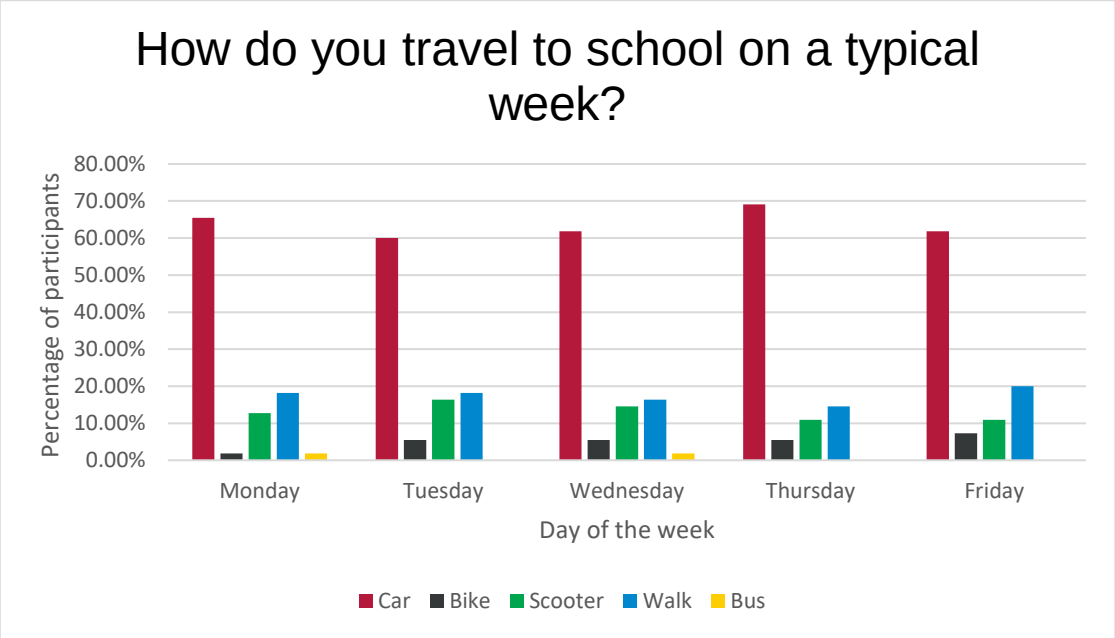


Figure 3-2 How Southbrook School students travel to school

From the survey results the mode split for the school can be estimated. Table 3-1 shows current mode split and the desired mode split. Increasing the number of students travelling to school by cycling, scooting, walking and public transport will meet the goals of the travel plan.

Walking school buses are often used by schools to increase the number of children walking to school. Walking school buses rely on an enthusiastic parent cohort to run the scheme. When asked in the survey if the parents and caregivers of Southbrook School children would use a walking school bus service 52% said no, 22% said yes and 26% were unsure. Therefore, it is not considered that a walking school bus is a viable option for Southbrook School at present.

Table 3-1 Comparison of current and desired mode splits

	Car	Bike	Scooter	Walk	Bus
Actual mode split	64% (199 students)	5% (15 students)	13% (40 students)	17% (53 students)	1% (3 students)
Desired mode split	50% (155 students)	8% (25 students)	15% (47 students)	26% (80 students)	1% (3 students)
Number of students to change mode	-44 students	+10 students	+7 students	+27 students	same

When asked why parents and caregivers drive their children to school there were multiple reasons, including:

- multiple drop offs needed/trip to work,
- the age of children makes driving the easiest and most convenient mode,
- poor weather making people use their car and
- safety issues of crossing main roads.

3.3 Pick up and drop off around the school

Most parents and caregivers use the Torlesse St pick up/drop off (PUDO) zone to drop their children at school (see Figure 3-3). Marshall Street and Railway Road were the next two most popular PUDO areas. Other locations used for PUDO were found to be the south end of Marshall Street (cul-de-sac end), Southbrook Road and Coronation Street. One respondent commented on the dangerous driving behaviour at school drop off and pick up time with drivers not giving way at the Torlesse Street and Railway Road intersection.

Approximately 96% of respondents felt that congestion outside of Southbrook School is an issue at pick up and drop off times.

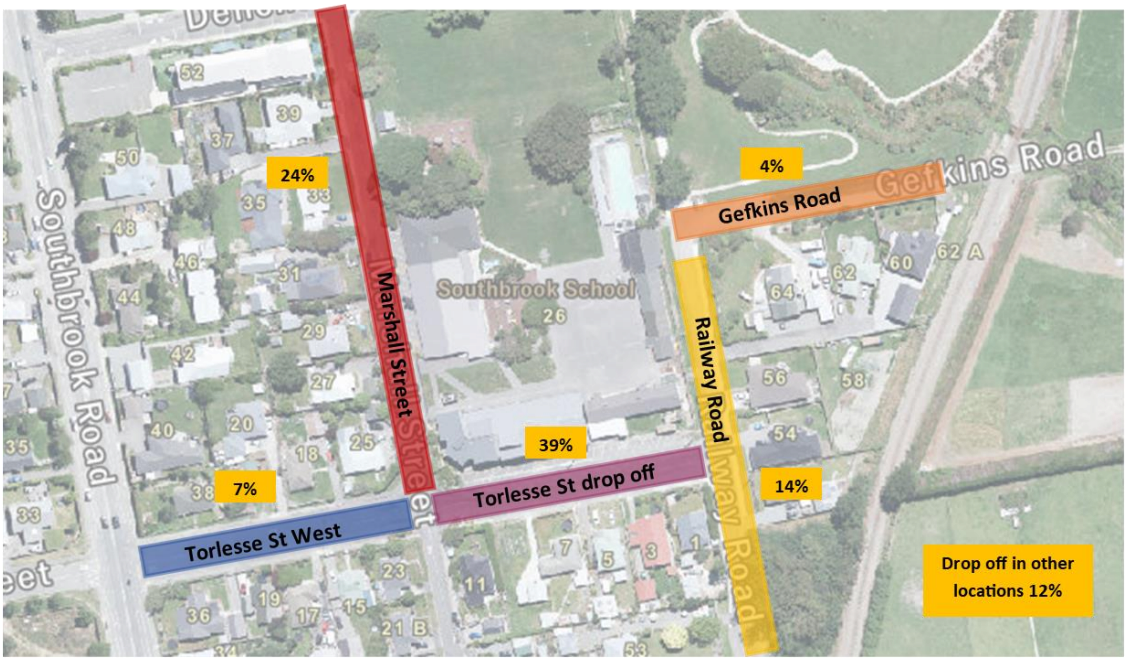


Figure 3-3 Drop off locations around Southbrook School.

3.4 Crossings around the school

The most highly used crossing is the Southbrook Road/Southbelt signals with an average of 22% of children using the signalised crossing to and from school. Other crossings around the school had a relatively equal split of use. Results show that the Marshall Street kea crossing is well used in the afternoons.

3.5 School accesses

To understand how parents, caregivers and children access the school grounds respondents were asked which entrances they regularly used.

A total of 47% respondents indicated that they use the Torlesse Street (access 2) entrance which coincides the high usage of the Torlesse Street PUDO area.

A total of 37% respondents indicated that they used access 1 on Marshall Street which lines up with the kea crossing which runs in the afternoons.

The other accesses have a lower percentage of children using them which is consistent with their location.

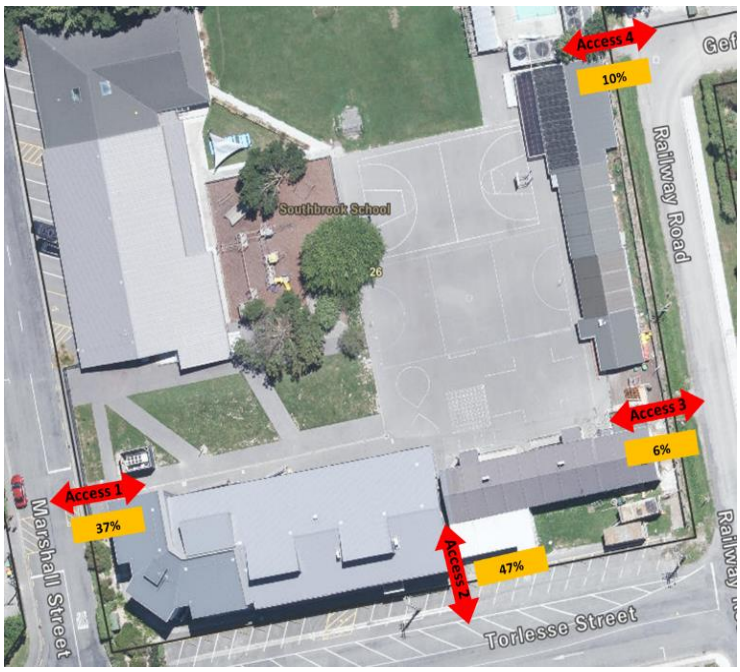


Figure 3-4 School access points.

3.6 School trip safety

When asked to rate their child's safety on their way to school a third of respondents rated the journey as safe. As shown in Table 3-2 many respondents were neutral about the safety on the way to school or felt it was unsafe.

Table 3-2 School trip safety

	Very unsafe	Unsafe	Neutral	Safe	Very safe
Safety rating	9.26%	22.22%	29.63%	33.33%	5.56%

Considering children's safety, respondents were asked what improvements could be made to improve safety on their trips to and from school. The main changes which could be made to make travel to school safer would be:

- installing a signalised crossing on Southbrook Road.
- lowering speeds around the school with a reduced speed zone or speed bumps
- creating a one-way system around the school.
- providing more parking and better drop off zones
- providing a cut through road which take people back to Rangiora avoiding Southbrook Road.

3.7 Awareness of upgrades and changes around the school

This travel plan can assist the school with the road upgrades occurring around the school in the next year. These changes include a signalised intersection being installed at the Torlesse Street/Southbrook Road intersection. With this intersection upgrade Denchs Road and Marshall Street will become one way, changing the way traffic flows around the school.

Only 46% of respondents were aware of this planned upgrade. The change to one way traffic flow and the signalised intersection means that the new PUDO on Marshall Street will become more attractive as parents and caregivers will be able to turn right out of Torlesse Street. The survey showed that 42% said they would use the new drop off zone on Marshall Street, 33% said they would not and 25% said that they were unsure.

4. What are we trying to achieve?

4.1 Aims and objectives

The aim of this travel plan is to change how students are travelling to and from school and encourage them to use more active modes. As shown above in Table 3-1 to achieve our desired mode split approximately 44 students need to switch from using a car to using an active mode to get to school.

The following table identifies our aims and objectives split into four categories; active, social, safe and sustainable, as well as the associated potential benefits. Importantly, barriers to reaching each aim and objective are identified and give an idea of areas where improvements are needed.

Table 4-1 Aims and Objectives

Aims and objectives	Expected benefits including who will benefit and how e.g. health and wellbeing	What barriers are there to our objectives?
Active Encourage physical fitness and healthy living of Southbrook School children. Children and parents choose to use active transport and walk or cycle to school	Health and wellbeing benefits: active children - resulting in maximised health and learning outcomes Minimised traffic congestion Less need for car transport	Many out of zone residential homes still a reasonable distance from the school. Many car users dropping children off to school on their way to work or elsewhere makes the car most convenient. Long term habits of car use.
Social Children and parents join with others as they walk or cycle to school. Engage the community in the ownership of the school travel plan	Health and wellbeing benefits: connected citizens Children interact with other children and adults as they journey to school Older children take on mentor roles Safety in numbers	Parents availability to support walking and cycling school buses Many residential homes still a reasonable distance from the school making active modes less desirable
Safe Reduce congestion and chaos at and near the school gates. Improve safety for the children on the roads surrounding the school. Children and parents feel safe walking or cycling to school. Children are aware of their surroundings and cross streets safely. Children and parents who walk or cycle to school do so confidently and safety.	Health and wellbeing benefits: nurturing sound road behaviour - for children, and adults. Older children take on safety patrol leadership roles.	Due to Southbrook Road being the main access road in Rangiora it has large volumes of traffic. Multiple schools in the area resulting in high numbers of cars and pedestrians navigating the road network.
Sustainable Promote active modes of transport. Increase the number of children and parents walking, scooting, or cycling to school	Health and wellbeing benefits: active connected, and safe children - resulting in maximised health and learning outcomes Environmental benefits: traffic is minimised	Not having the necessary infrastructure in place to encourage all active modes (limited cycle lanes and limited public transport connection)

5. The Travel Plan

5.1 What we plan to do

What are we already doing?

Southbrook School already complete a number of activities that encourage active travel to the school. These include:

- Cycle Safety Training.
- Walk or wheel to school day/week
- SOUTHBROOK TO FILL IN OTHER INITIATIVES

Action Plan

Targets are necessary to drive actions. Considering the benefits of alternatives to car use but also of student's preferences, targets need to reflect an ambition to increase active travel and reduce car use.

Table 5-1 outlines the proposed travel plan actions for Southbrook Primary School, Waimakariri District Council and the wider stakeholders.

Table 5-1 Travel Plan actions

Action	Timescales for completion	Who is involved/responsible
Create and implement travel plan		
Approve the travel plan	Term 4 2022	School management & Waimakariri District Council
Nominate a staff member or member of the community to take on the role of travel plan coordinator	End of Term 4 2022	School management
Publish survey results and travel plan to parents and students. Have a feature in the school newsletter.	Start of Term 4 2022	School management
Create a school travel page on school website for all initiatives and communication.	End of school year 2022	School management
Produce information sheets for families on parking areas, changes, suggested behaviours, and active travel	Immediately after upgrade completion	Waimakariri District Council & School management
Complete a travel survey 6 months after the completion of the upgrades around the school and revaluate the school travel plan.	6 months post upgrade completion	School management & Waimakariri District Council
For the school		
Prepare consistent and culturally considerate road safety and active transport messages to the community. Plan curriculum initiatives to promote road safety and active travel awareness in detail (which activities, on which days, in which classes etc). This can include:	Start of school 2023 - Ongoing	School management

▪ Pedestrian/Cycling/Scooting safety training – community Police ▪ Health and Physical Education classes centred on active travel		
Create an interim PUDO zone on Marshall Street	In conjunction with intersection upgrade works	Waimakariri District Council
Create permanent PUDO zone on Marshall Street with consideration to safe parking vehicle movement, pedestrian safety and connectivity following discussions with the school	Following allocation of budget in the LTP	Waimakariri District Council
Remove existing Torlesse Street PUDO zone	In conjunction with intersection upgrade works	Waimakariri District Council
Participate in a walk or wheel to school week/day annually	Start of school 2023 - ongoing	School Management & student leaders
Promote active modes at school and create a recognition system for students.	Ongoing	School Management & student leaders
Provide cycle safety training for Year 6 students	Ongoing	Waimakariri District Council & School Management
Engage with community Police to facilitate school road saftey programmes	Ongoing	School Management & local community Police
Have PUDO wardens (possibly Council parking wardens) to monitor the driving behaviour at the new Marshall St PUDO for the first fortnight	First fortnight immediately after upgrade completion	Waimakariri District Council, local community Police & School Management
Operate Marshall Street kea crossing in mornings and afternoons	Immediately after upgrade completion – ongoing	School Management
Include regular information in the school newsletter on active, sustainable travel. For examples, profiling different families using sustainable and active modes to get to school.	Ongoing	School Management
Provide new families with information about travel options to school and the schools travel plan	Ongoing	School Management
For the community		
Install a permenant 30kmph speed limit around the School in conjunction with intersection upgrades as part of the Setting of Speed Limits Rule change	In conjunction with surrounding upgrades, as soon as practicable	Waimakariri District Council
Run a ‘Park Smart’ programme to encourage a safer and less stressful parking environment with community police. Provide parking education and reinforce safe parking practices over a fortnight.	Immediately after completion of school safety work	Waimakariri District Council, Police & School Management
Identify and promote suitable locations for parking and walking to school to promote active travel to the school and reduce congestion at the school gate.	Term 1 2023	School Management

Further options for encouraging walking and wheeling to school

- Build a bike and scooter shelter
- Walk/bike/bus to school maps
- Classroom challenges
- Frequent walker scheme
- Cycle or bus miles
- Buddy programme
- Set walking day
- Feet first
- Active travel tree
- Active transport breakfast, smoothie station or walk to support activity

Resources which can be used in school

NZTA's Road Safety teacher resources: https://education.nzta.govt.nz/teacher-resources/school-policy-and-practices/

Bike Ready: https://www.bikeready.govt.nz/schools/

Bike On (bikes in schools programme): https://bikeon.org.nz/

NZ Police School Portal: https://www.police.govt.nz/advice/personal-and-community-advice/school-portal

6. Monitoring and Review

It is important that the school travel plan is regularly reviewed. Each update should include a review of the objectives and action plan. To track progress, an annual travel survey should be completed. However, it is recommended that another travel survey is completed after the roading changes are implemented around Southbrook School.

A copy of the template travel survey is supplied in Appendix A. The survey may be adapted to include location specific questions as required.

In order to ensure the Travel Plan is implemented and reviewed, the school should have an appointed Travel Plan Coordinator at all times. This can be any member of staff wishing to champion the approach.

The current Travel Plan Coordinator is:

On an annual basis, the Travel Plan Coordinator will manage the Travel Plan Monitoring by following these steps:

1) The Travel Survey Questionnaire will be distributed to parents/caregivers for them to fill out (survey monkey is a free survey service).

2) The School will analyse survey results against previous results and against targets.

3) The School will review progress in implementing the actions set out in the Action Plan.

4) The School will update the Action Plan with new or different actions in order to meet targets.

The first survey, carried out in May 2022 is the baseline survey. These results will be used to set targets. Once the baseline is established, this Travel Plan will be updated with the survey results but also with clear targets for:

- the proportion of students driven to/from school in single family cars, aiming for a decrease from the baseline.

Travel Survey Methodology:

- The parents/caregivers survey questionnaire developed by Ableyis to be used every year to allow comparing results year on year.
- In-classroom desired mode surveys can consist of either hands-up counts or of asking every student individually about their preferred travel mode. Only one answer per student.
- Together, these surveys will generate data to be summarised by the School in the following outputs:
    - Graph of how people travel to and from school
    - Parking / drop off location for staff and parents
    - Reason for current travel mode
    - Other modes interested in and/or how students would prefer to travel
    - Main reason why they don’t travel by an active mode.

Appendix A. Travel Survey Template

Q1 I am a parent/caregiver of a child at Southbrook Primary and by completing this survey I agree that the answers I provide can used to create the school travel plan.

Yes

No

Q2 How many children do you have attending Southbrook Primary?

1

2

3

4

5

6+

Q3 What year is/are your child(ren) in at school?

Year 0

Year 1

Year 2

Year 3

Year 4

Year 5

Year 6

Year 7

Year 8

Q4 Looking at the image below, please indicate which are you live within?

Area 1

Area 2

Area 3

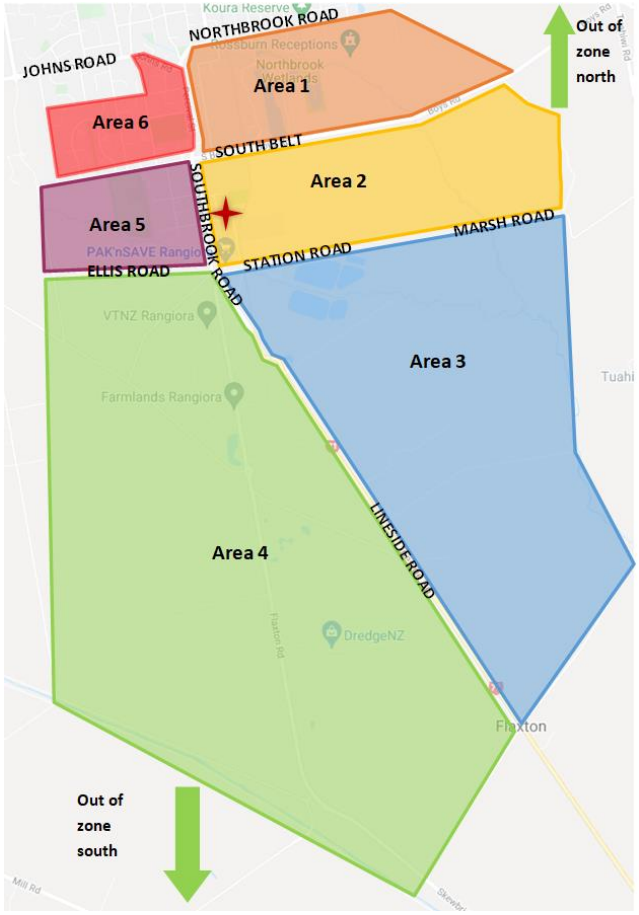
Area 4

Area 5

Area 6

Out of zone (North)

Out of zone (South)



Q5 On a typical week how do you travel to school?

	Car	Bike	Scoter	Walk	Bus	Total
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						

Q6 If you drive, why do you drive your child(ren) to school? Select all that apply

Convenience

Age of children means driving is easier

Multiple drop offs needed/trip to work

There isn't a safe route to cycle or walk to school

The distance to school is too great walk or cycle

Other (please specify)

Q7 If you drive, where do you pick up/drop off? Select all locations which you use (see image below).

Torlesse St drop off zone

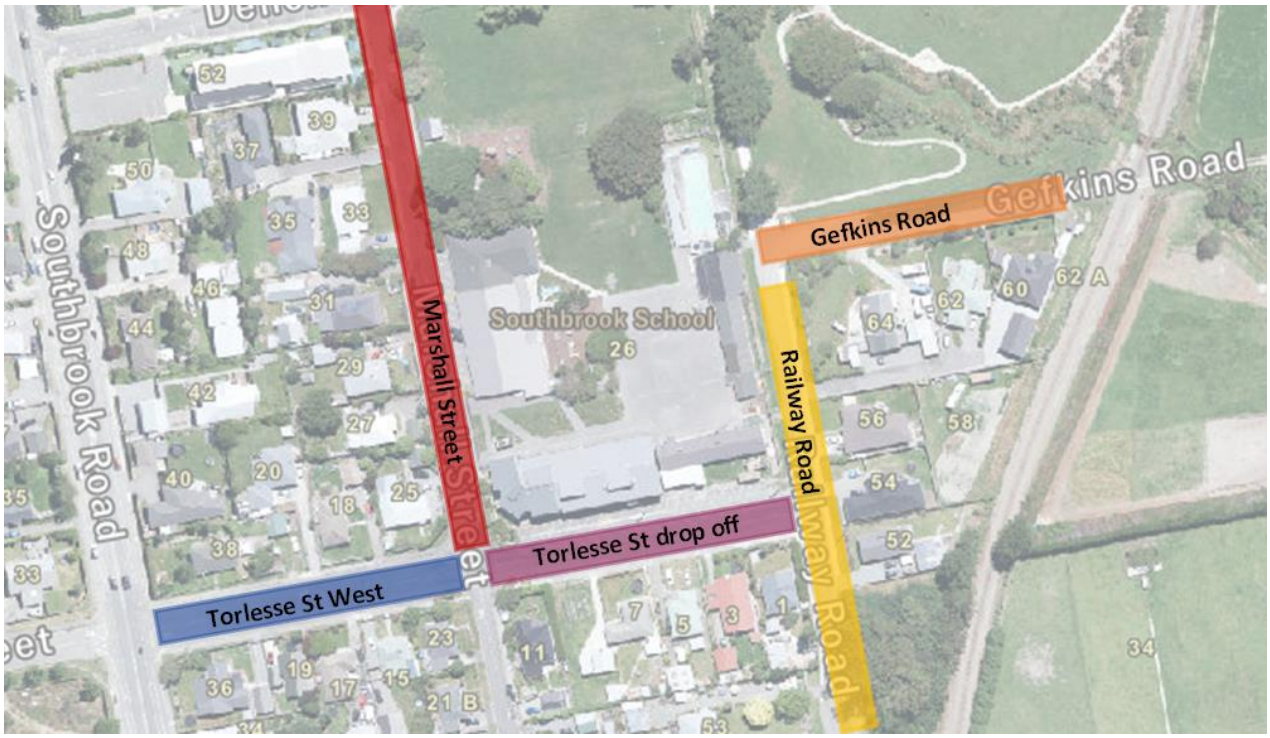
Torlesse St west

Marshall St

Railway Road

Gefkins Road

Other (please specify)



Q8 Which crossings do you use when travelling to school? (see image below)

Southbrook/Southbelt signals

Southbrook kea crossing

Denchs Road planter box crossing

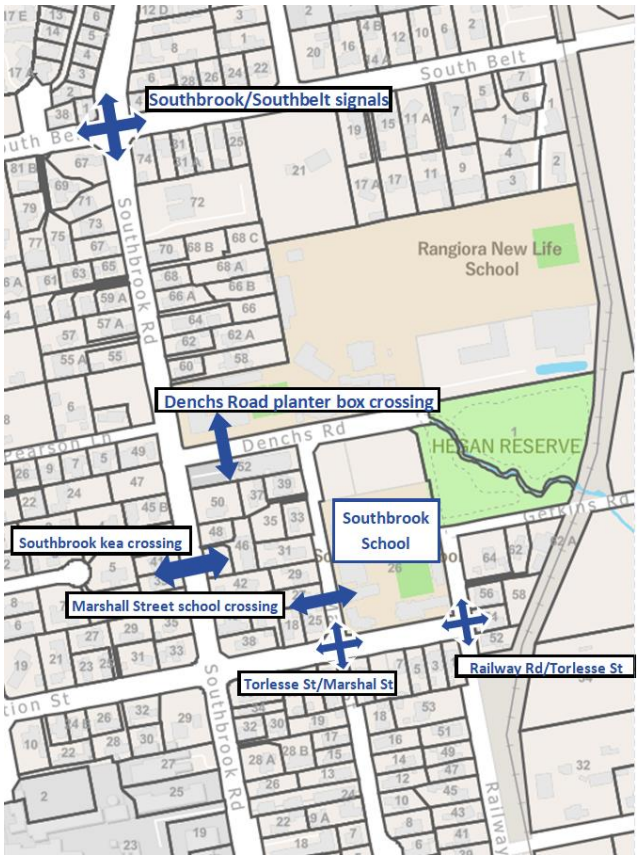
Marshall Street school crossing

Torlesse St/Marshall St intersection

Railway Rd/Torlesse St intersection

I don't use a crossing

Other (please specify)



Q9 Looking at the image below, which entrance to the school do you currently use? (see image below)

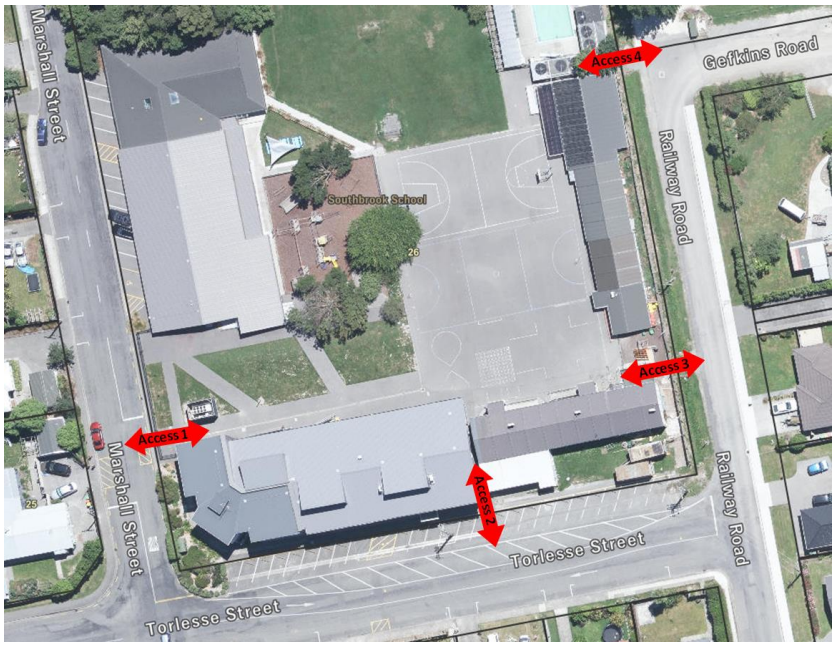
Access 1

Access 2

Access 3

Access 4

Other (please specify)



Q10 How safe would you consider your childs route to school?

Very unsafe

Unsafe

Neutral

Safe

Very Safe

Q11 Do you believe that congestion at the school pick up/drop off times is an issue?

Yes - all the the time

Yes - but only in the morning drop off

Yes - but only in the afternoon pick up

No - congestion is not an issue

Q12 What would make your child(ren)s trip to school safer?

Supervised crossings (Kea crossings)

Cycleways connecting the school

More footpaths around the school

Signalised crossing on Southbrook Road

No changes are needed

Other (please specify)

Q13 Would you use a walking school bus service? A walking school bus involves students with adult supervisors walking in a group to school. Each 'bus' walks along a set route with at least one adult 'driver' picking up children at designated 'bus stops' and walking them to and from school. Walking school buses are organised by the parent community.

Yes

No

Unsure

Q14 A new signalised intersection will be installed at Southbrook Road and Torlesse Street. This will allow traffic to turn right onto Southbrook Road and create signalised pedestrian crossings. With the upgrade Denchs Road and Marshall Street will become one way, changing the way traffic will flow around the school. Are you aware of this planned upgrade?

Yes

No

Q15 The changes to one way roads will allow us to install a drop off zone on Marshall Street (see image below). Would you use this new zone instead of the current Torlesse Street drop off area?

Yes

No

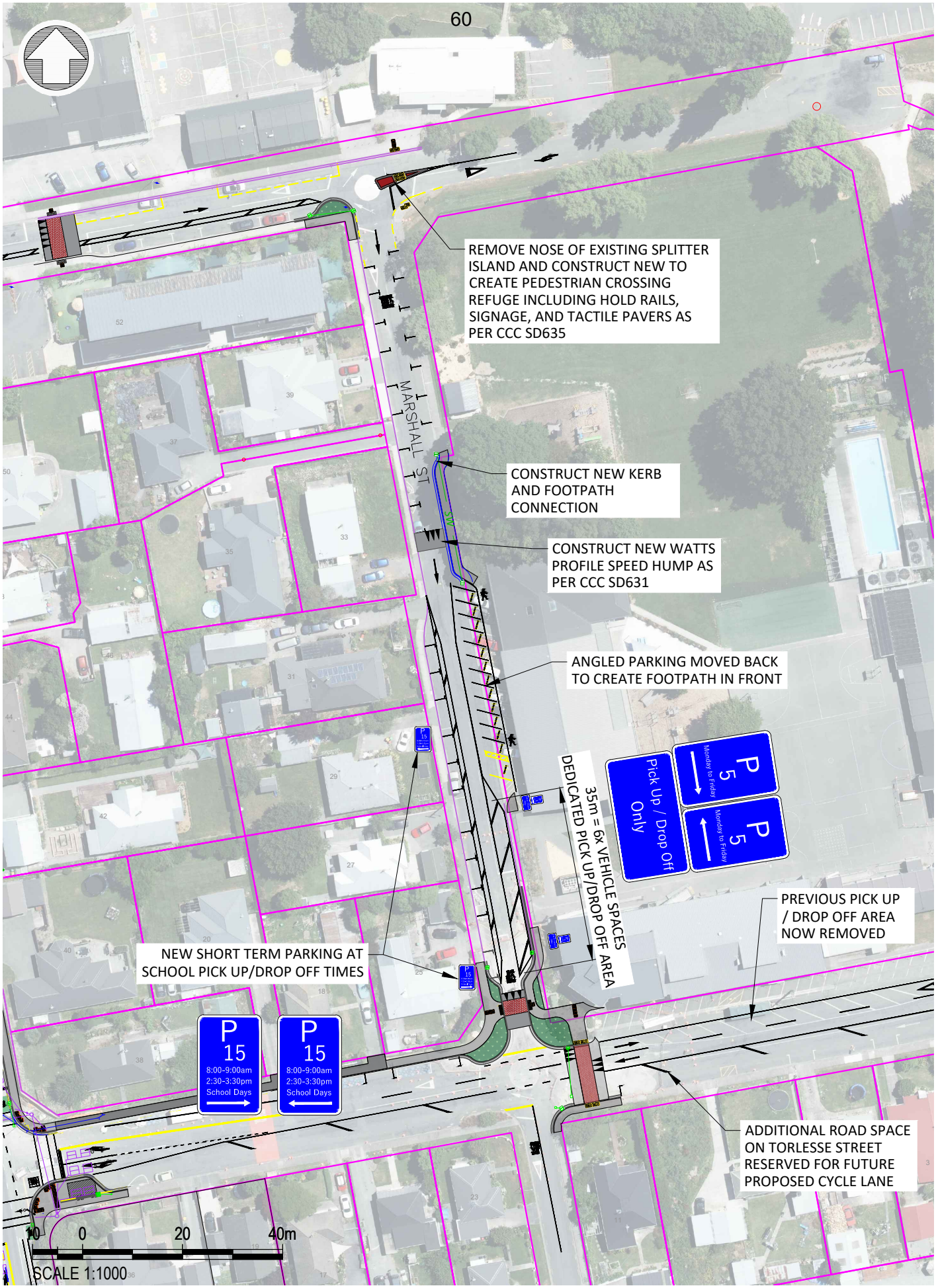
Unsure

Auckland
Level 1/70 Shortland Street
PO Box 613, Shortland Street
Auckland 1140
Aotearoa New Zealand

Wellington
Level 1/119-123 Featherston Street
Wellington 6011
Aotearoa New Zealand

Christchurch
Level 1/137 Victoria Street
PO Box 36446, Merivale
Christchurch 8146
Aotearoa New Zealand

hello@abley.com
+64 3 377 4703
abley.com



WAIMAKARIRI DISTRICT COUNCIL

SOUTHBROOK SCHOOL TRAVEL PLAN

PROPOSED PICK UP / DROP OFF AREAS

SCALE (A4) 1:1000	DATE 01/06/2023
DRAWING 4365	
SHEET 1	REVISION A

PLOT DATE: 30/08/2023 FILE: S:\PDU\PDU JOBS\PD001600-1699\PD001691 - SOUTHBROOK ROAD IMPROVEMENTS\4 - DESIGN\DETAILED DESIGN\SOUTHBROOK TORLESSE\SOUTHBROOK DETAILED DESIGN - WORKING DWG.DWG

Waimakariri District Council
215 High Street
Private Bag 1005
Rangiora 7440, New Zealand
Phone 0800 965 468

Our Reference: RDG-32-79-05 / 230509066255

09 May 2023

Marshall Street
Rangiora 7400

Dear Hayley,

This letter is in regards to a site visit on 01 May 2023 at which time I (along with a colleague) spoke to your mother Marshall Street, Rangiora.

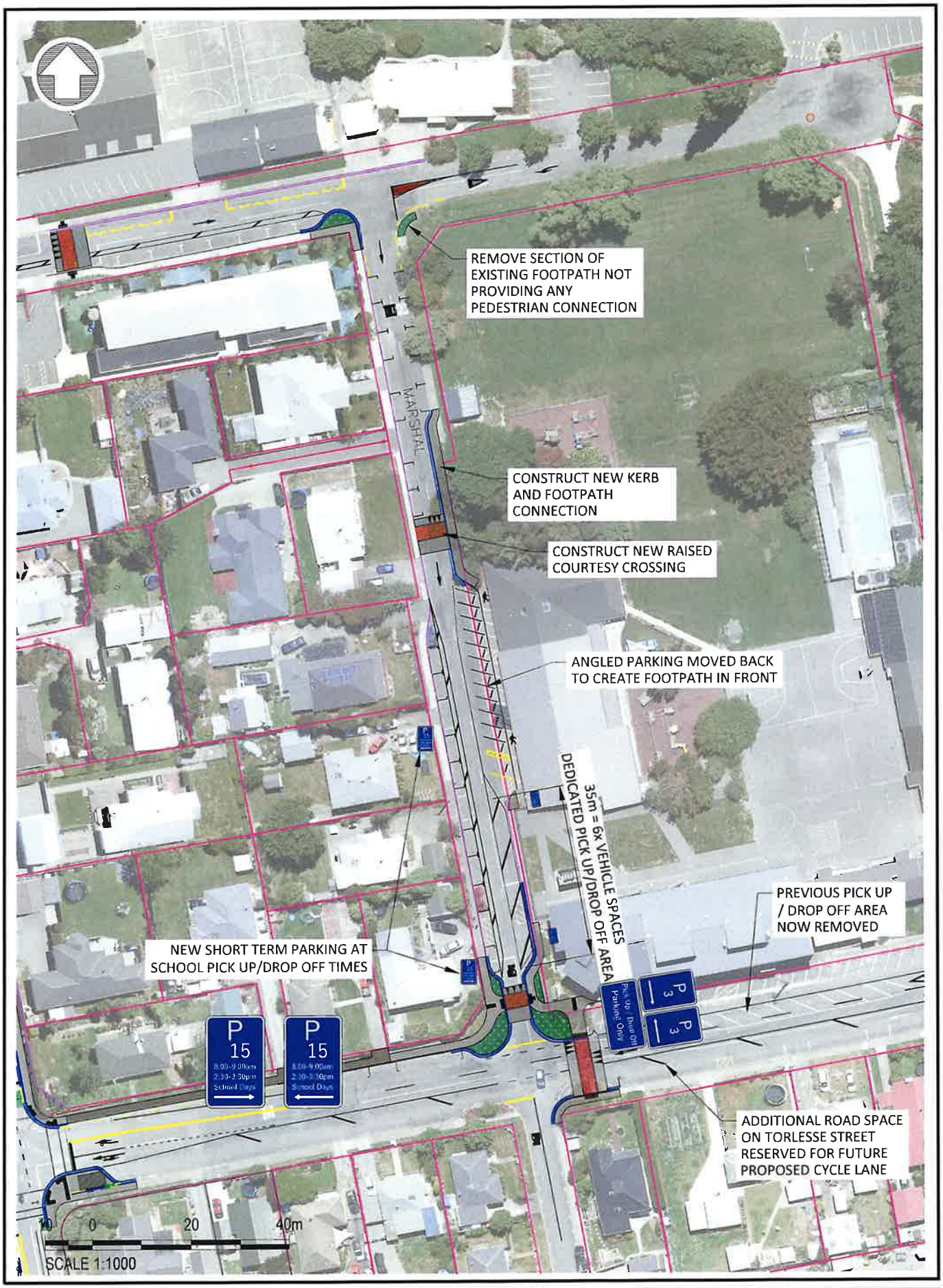
During this visit, the proposed parking changes on Marshall Street outside your property were discussed. As is not the registered owner of the property, we are obliged to advise you of the proposed changes which are in intended to improve road safety at the school pick-up, and drop off times.

The changes relate to the on-street car-parking on the western side of Marshall Street, outside No. 25, 27, and 29. These parking spaces will be posted with a "P15" during the hours of 8:00am – 9:00am and 2:30 – 3:30pm. It is intended that outside these hours you and / or visitors to your property will be able to utilise this parking. Please also note that restrictions would only apply to school days, and that parking on the Torlesse Street frontage will remain available, and un-restricted.

A copy of the proposed layout plan is attached for your information, and I invite you to provide me with any feedback you have by 19 May 2023 either by emailing kieran.straw@wmk.govt.nz, or calling on 021 794433.

Yours Sincerely,

Kieran Straw
Civil Project Team Leader



WAIMAKARIRI DISTRICT COUNCIL

SOUTHBROOK SCHOOL TRAVEL PLAN

PROPOSED PICK UP / DROP OFF AREAS

SCALE (A4)	DATE
1:1000	09/05/2023
DRAWING	4365
SHEET 1	REVISION A

PLOT DATE: 09/05/2023 FILE: S:\PDU\PDU JOBS\PD001600-1699\PD001691 - SOUTHBROOK ROAD IMPROVEMENTS\4 - DESIGN\DETAILED DESIGN\SOUTHBROOK TORLESSE\SOUTHBROOK DETAILED DESIGN - WORKING DWG.DWG

Waimakariri District Council
215 High Street
Private Bag 1005
Rangiora 7440, New Zealand
Phone 0800 965 468

Our Reference: RDG-32-79-05 / 230704100287

05 July 2023

Marshall Street
Rangiora 7400

Dear Hayley,

Following on from my previous correspondence (dated 9th May 2023), we have tried to make contact with you by door knocking at various times, on multiple occasions. We have however been unable to make contact, and we have also not had a response to my previous letter.

I am therefore proceeding to prepare a report to the Rangiora Community Board seeking to their approval to implement the planned changes on Marshall Street.

To recap, the changes relate to the on-street car-parking on the western side of Marshall Street, outside No. 25, 27, and 29. These parking spaces will be posted with a "P15" during the hours of 8:00am – 9:00am and 2:30 – 3:30pm. It is intended that outside these hours you and / or visitors to your property will be able to utilise this parking. Please also note that restrictions would only apply to school days, and that parking on the Torlesse Street frontage will remain available, and un-restricted.

The changes will likely take some time to come into effect, as we still require to get the works tendered before the changes can be made, however we would expect the changes to be completed towards the end of 2023.

You are still more than welcome to provide me with any comments or concerns you have by either by emailing kieran.straw@wmk.govt.nz, or calling on 021 794433.

Yours Sincerely,

Kieran Straw
Civil Project Team Leader

Kieran Straw

From:
Sent: Thursday, 3 August 2023 8:13 AM
To: Kieran Straw
Cc: Aaron Kibblewhite
Subject: Re: Marshall St Angle Parking

Mōrena Kieran

Our Board met last evening and we discussed the parking and footpath by the school hall.

We felt that the parking needs to stay as it is. Our reason being that backing into a carpark while on a one way would most likely cause more problems.
The Board felt if a small footpath could be constructed by the hall wall to the entrance gate without encroaching very much onto the parking space that would be great. If we take away too much length in the parking space it will then be even more difficult for trucks and buses coming down the one way - it is tight now.

I am happy to meet you on site at some stage to visually assess this.

Ngā mihi

Southbrook School
Rangiora

On Wed, Jul 19, 2023 at 4:39 PM Kieran Straw <kieran.straw@wmk.govt.nz> wrote:

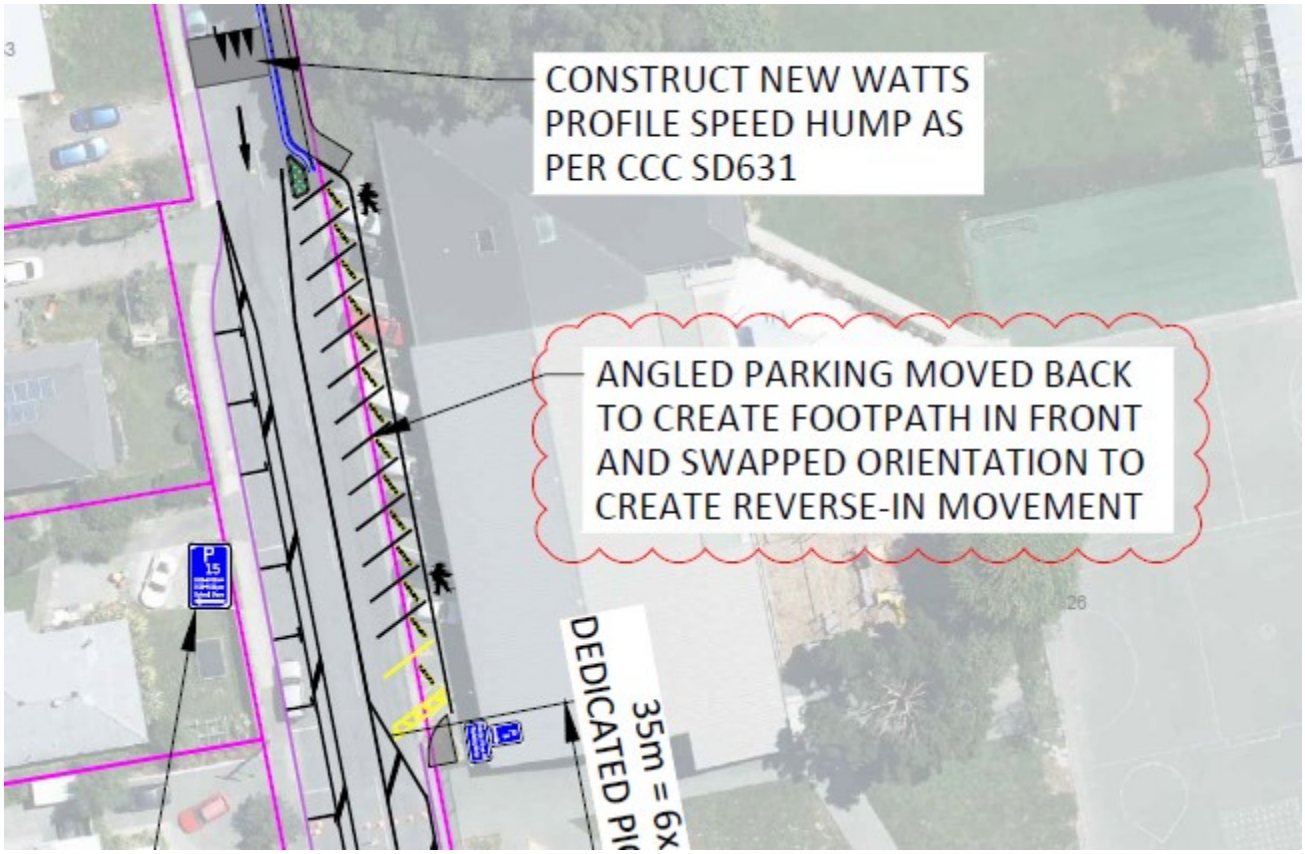
I hope you are well.

We have not progressed the Marshall Street proposed changes much at the moment due to other work commitments, but we have been chipping away at it in the background. As part of that, we have discussed the project with Waka Kotahi, and their safety representatives have suggested that we alter the existing angle parking layout so that the angle parks must be reversed into. To help you visualise the concept, Aaron has drawn up the proposal (attached, and a zoomed-in snip added below)

This option is preferred as there is a lot of evidence that supports that reversing into parking spaces is safer that reversing out of parking spaces. This is primarily because drivers will have visually checked the parking space is clear before reversing into in, so they will know there is no kids behind the vehicle. A driver reversing out of a park is unlikely to have physically checked behind their vehicle before getting into their car and reversing out of a parking space, and instead rely on a reversing camera or mirror to check the space behind their vehicle which has significant safety drawbacks.

Is this something that you can discuss with your board and let me know if the school supports this? There would be no reduction in parking spaces between the two options.

You will also notice that the previously suggested raised table crossing has been removed, and in it's place is a standard "watts profile" speed hump.



Regards,

Kieran Straw | Civil Projects Team Leader
Project Delivery Unit

Kieran Straw

From:
Sent:
To:
Subject:
Attachments:

Mōrena, Peter

I wonder if you are able to help me please, or direct me towards a person who has responsibility for the area of road signs?

On the East side of Denchs Road, Southbrook, there are five minute parking signs saying, “P.5. 2:30 to 3:30 pm School Days.” I wonder whether this can be extended by including the following please:
“P.5. 8:15 am to 9:00 am School Days.”

If either a bigger sign can be made or an additional sign attached to the existing pole, that would be very helpful.

There are three road signs at present.

As I am on duty on the Denchs Road ‘crossing’ Monday to Thursday every week, I see people parking for long periods of time, and also some are using it as day parks. I have spoken to the Primary staff at our school and asked them to consider using alternative parking spaces if the Primary car park is full.

The area is great as a quick drop-off area, and if the parking limit before school is five minutes, then it should help to keep the traffic flowing. Some people are using the bus stop as a drop off, and I am speaking to them when this occurs.

Thank you for considering this request.

Ngā mihi koa

Associate Principal
Rangiora New Life School
Ph:

WAIMAKARIRI DISTRICT COUNCIL

REPORT FOR DECISION

FILE NO and TRIM NO:	CPR-04-25-01 TRIM: 231026170975
REPORT TO:	RANGIORA ASHLEY COMMUNITY BOARD
DATE OF MEETING:	8 November 2023
AUTHOR(S):	Grant MacLeod (Community Greenspace Manager)
SUBJECT:	Queen Street Tree report in response to the submission from the Hills
ENDORSED BY: (for Reports to Council, Committees or Boards)	General Manager / Chief Executive

1. SUMMARY

1.1. The purpose of this report is to provide a response and recommendations to the Rangiora Ashley Community Board following a deputation by the Hills (residents of Queen Street) in relation to the London Plane trees adjacent to their houses.

1.2. The points raised within the deputation focussed on the following:

- Timeline for interaction with Council (1996 – 2023)
- Hazardous footpaths
- Branch fall
- Roots going into neighbouring properties
- Services being damaged
- Blocked street lights
- Shading of properties
- Leaf drop during Autumn
- Evidence of healthy London Plane trees removed in other parts of Rangiora

The deputation also notes *'these trees are a severe health and safety matter for the Board to address, given the height, shading, maintenance issues to residents, and falling branches'.*

1.3. The Hills who live on Queen street have been raising concerns with the trees since the mid 90s, when in 1996 it resulted in a report being put to the *'Services Committee'.* The focus of the report was to look at pruning of the Plane trees. Subsequent to this there has been further reports on the trees in 2007, 2010, 2012 and again the issue was raised in 2022.

The Hill's from Queen Street presented a deputation to the Rangiora Ashley Community Board at its 9 August 2023 meeting to outline ongoing concerns with the London Plane trees along the street. The Hill's were representing some of the wider Queen Street

residents at the meeting. The intention of the deputation was to bring the Rangiora Ashley Community Boards (RACB) attention to the issues they have with the presence of the London Plane trees along Queen Street. The Hills deputation also outlined the ongoing discussion they have had with Council since 1996. This has led to the Hills putting together two options for the RACB to consider. The options (which can be seen in attachment i) include:

- Remove the Plane Trees and replace them with a less intrusive and aesthetic native species that enhances peoples lives.

- Or create a staged replacement scheduled for the trees where largest/most troublesome trees could be removed immediately with remaining trees pruned and replaced over the next 3-5 years.

1.4. The general focus of reports to date have been to look at the maintenance of the trees to try and make the situation for the residents better whilst retaining the trees in good health. However with what can be achieved through maintenance or pruning, and the outcomes sought by the Hills, it is evident that ongoing operational management is not going to meet the outcomes the Hills have asked for. The Hills noted that the trees used to be pollarded for a number of decades prior to 1996 but due to a change in operational management of the trees, when these issues arose, was not now carried out, as was noted in the 1996 liaison.

1.5. Staff are mindful that the Street and Reserve Trees Policy and some of the advice to date offers a point of difference with the views of the Hills who do live next to the trees. From a staff perspective the London Plane trees do not meet the requirements to recommend removal and are considered high value amenity trees for the District. In previous reports, staff have undertaken community consultation that have supported the outcome of retaining the trees. Hence previous reports have tried to look at ways to retain the trees whilst providing some respite for the Hills concerned with the trees shading, size and other issues such as leaf / branch fall.

To assist in alleviating this issue from continuing to be ongoing, staff are providing options within this report that look to a finite solution. This is to either remove or retain the trees so that there is a clear expectation for all parties on the future of the London Plane trees on Queen Street.

The Council's Street and Reserve Trees Policy sets out in item 4.4 Removal of Street Trees.

The removal of a healthy tree will only be considered in the following circumstances and even then, only when all options for retaining it have been eliminated:

- *Where it causes severe hardship consistent with District Court Decisions*

- *Where it causes severe disruption to essential services*

- *Where it is necessary for a street tree redevelopment plan to be implemented*

- *Where it is necessary for the realignment reformation of a footpath*

In situations where residents claim healthy street trees are having a negative impact on their properties, the following procedure will be followed:

- *The tree(s) will be inspected by a Council Community Greenspace Team advisor to ascertain the problem(s).*

- *Any appropriate works will be carried out by Council's approved tree contractors at the Council's expense. Appropriate works are defined as those necessary to alleviate the problem(s), although not to the extent that the natural attractive form, health or stability of the tree is compromised in the operation.*

Where a residents request for the removal of a tree is received, staff will consult with the neighbours and prepare a report for the relevant Community Board for its consideration.

1.6. The Community Board (RACB) has the delegated authority, under the Delegations Register to approve the removal of street and recreation reserve trees; unless deemed an urgent Health and Safety matter.

1.7. Staff have received complaints regarding leaf fall and shading caused by the trees in Queen Street and have had the trees pruned as much as practicable. This is an ongoing service level within the Asplundh tree contract.

1.8. Trees of the nature of the London Planes on Queen Street would be considered notable in the context of the wider district. It should be noted that Council no longer lists its own trees as notable within its Proposed District Plan. It is considered that the presence of the Street Tree policy should be sufficient to protect trees such as this instead of listing within the District Plan.

1.9. With underground services and other urban impacts on street trees, it will be more difficult to grow specimens such as the London Plane trees in Rangiora as a like for like replacement either on Queen Street or in another road corridor elsewhere in the town. The loss of these trees will be permanent for the wider towns landscape and would not be expected to be seen again with the restriction's trees have when being planted in street corridors in 2023, versus the early 1960s (when these trees were planted).

1.10. Treescape, Treetech and the recent Warner report have all identified that the trees can only sustain a certain level of canopy maintenance without compromising the health of the trees. To risk greater instability of the trees with more invasive management techniques at this point would not be recommended by staff, nor has it been supported through the reports mentioned. This outlines that there is a requirement to offer a resolution on this matter and to have a removal and replacement program or to retain the trees and acknowledge there is only so much that can be done to mitigate the issues raised by the Hills of Queen Street. For nearly 30 years this issue has gone on as there has been a desire to find a middle ground. As the Hills themselves have pointed out, they believe the time for that has passed and a final resolution is being sought.

Attachments:

i. 2023 Presentation from the Hills to the Rangiora Ashley Community Board (TRIM: 231026170969)
ii. 1996 Services Committee report and Treescape Advice (TRIM: 080609017621)
iii. 2007 Treetech report (TRIM: 081029034945)
iv. 2007 Letter from Mayor to Queen Street resident (TRIM: 070605017026)
v. 2010 Treetech report (TRIM: 100527017912)
vi. 2010 Rangiora Ward Advisory Board report (TRIM: 100527017961)
vii. 2011 London Plane trees on Queen Street consultation flyer (TRIM: 111214060152)
viii. 2012 Rangiora Community Board report (TRIM: 120306011853)
ix. 2013 Letter from CEO to Hills (TRIM: 130930083687)
x. 2016 TripStop report (TRIM: 160823085123)
xi. 2017 Street and Reserve Trees Policy (TRIM: 140217014654)
xii. 2022 Warner tree assessment (TRIM: 231026171226)
xiii. 2023 Email from Greenspace Manager to Hills (TRIM: 231026171222)

2. RECOMMENDATION

THAT the Rangiora Ashley Community Board:

(a) **Receives** report No. 231026170975.

(b) **Approves** the retention of the London Plane Trees on Queen Street.

(c) **Approves** staff continuing with the current tree maintenance programme for the Queen Street trees.

(d) **Notes** that staff are to provide a succession planting plan for Queen Street. That this plan should be presented back to the Rangiora Ashley Community Board by April 2024.

(e) **Notes** that the reason for the succession planting plan is to retain the amenity, biodiversity and other benefits of the trees long term. This will ensure a canopy avenue for future generations.

OR

(f) **Approves** consulting with the District on a selective removal and staged replacement programme of the plane trees.

(g) **Notes** that as part of the consultation, staff will develop a draft tree replacement program (noting it will not be London Plane Trees that are replanted) for the public to comment on.

(h) **Notes** staff will report the findings of this consultation back to the Rangiora Ashley Community Board by April 2024.

OR

(i) **Approves** staff to undertake community consultation with the District that proposes the removal of the London Plane Trees along Queen Street.

(j) **Notes** staff will report the findings of this consultation back to the Rangiora Ashley Community Board by April 2024.

3. BACKGROUND

3.1. The points raised within the deputation focussed on the following as the resulting problems of the trees being present:

- Hazardous footpaths
- Branch fall
- Roots going into neighbouring properties
- Services being damaged
- Blocked street lights
- Shading of properties
- Leaf drop during Autumn
- Evidence of healthy London Plane trees removed in other parts of Rangiora

The deputation also notes *'these trees are a severe health and safety matter for the Board to address, given the height, shading, maintenance issues to residents, and falling branches'.*

Staff have only located one report of damage to parked vehicles in the street within the last decade. With regard to risks and hazards presented by the trees staff regularly inspect the trees, sometimes on a weekly basis depending on the time of year and also following strong wind events. Staff or contractors also inspect the street early the next morning following a strong wind event to determine how much if any debris is present prior to any clean up commencing and to determine if there has been any significant failure of the structure of any of the trees. While there is debris present it is usually of the nature of leaves and small sticks and branches and rarely any branches of any significant size. These trees present no more danger to users or residents of the street than in any other location where street trees are present. The trees are not unusually high for street trees and are in good health. London Plane trees are not known to be particularly prone to failure in high wind events and given their health and strong structure there is no indication that any of them would be susceptible to catastrophic failure unless they experienced wind of extremely high strength. It should be noted that over pruning will make the trees more prone to failure in high winds as the normal reduction in wind velocity reduction created by well attached leaves dissipating wind energy is not present.

3.2. Each of the points raised above have been assessed by staff with the following information offered for context.

- **Hazardous footpaths** – with in the Council's tree policy it states that one of the considerations for the removal of a tree is to realign or reform a footpath. On viewing the footpaths along Queen Street, it is not considered by staff that a full reformation is required and any works can be isolated and dealt with on a case by case basis. There are instances within the District where trees on private property cause similar damage to public footpaths. The Council does not usually consider damage to footpaths to be sufficient reason to request tree removal from neighbouring properties. Council has also trialled TripStop within the street which has proven to be successful (this can be viewed in attachment x). TripStop is designed to act as a hinge in the footpath, which allows for earth and tree root movements to occur without damaging the surface of the footpath. The only additional cost to WDC is from the introduction of bidim and filter cloth where needed, otherwise it's just the TripStops. By changing the footpath around trees to concrete, it is considered to be a more cost effective solution for WDC as it creates a longer life expectancy, reduces maintenance costs in the long term and ensures a smoother surface for pedestrians. Staff believe this higher level of maintenance is acceptable based on the significant benefits that the trees provide.

- **Branch fall** – the recent wind event of 12 October 2023 demonstrates that the ongoing maintenance program for the trees is seeing less and less debris or branches fall. Staff could only locate one service request in recent history related to the Queen Street trees. If the trees were to be pollarded, or had continued to be, it is more likely that there would be greater branch fall. We have a risk approach to the maintenance of our trees, the highest amenity trees (such as the Queen Street) are more regularly maintained. There has only been one reported incident of damage to vehicles parked in Queen Street in the last decade. This was a recent event earlier this year where a windscreen was shattered by a fallen branch. While strong wind events do produce some minor debris it is neither more in volume nor larger in size than debris from other comparable street trees within the district.

- **Roots going into neighbouring properties** – Council has put root barriers in the footpath when it was redeveloped. This hasn't been effective due to the limitations in pruning back roots on mature trees. To be as effective as the residents are asking in this case, it would require total removal of the trees or compromising the trees health and therefore structural integrity, thus safety for those near the trees. Property owners are entitled to prune or remove intrusive roots within their properties as they see fit at their cost. Council practice is to deal with each situation on its merits and there are a number of ways that roots can be dealt with if they are causing damage. However, it should be noted that the Courts have long held the position that roots are part of the natural world and trees by their very nature will send out roots into neighbouring properties. Council is under no obligation to remove roots from neighbouring properties. Council occasionally manages damage to structures such as paths or pipes caused by its trees at other locations and deals with each case on a good faith basis.

- **Damage to services and property** – at this time Council has not had to repair its own services through this area, although it can be expected that living in a tree lined street there would be presence of leaf fall not only on the ground but also in gutters and drains. A solution to this (outside of tree removal) may be for staff to assess this and present options to Council for further Levels of Service for tree lined streets and houses that experience high levels of leaf fall. This would require a detailed process and criteria but may be an option that elected members wish to pursue.

- **Blocked street lights -** It is worth noting that the lighting poles on Queen Street are now 10.2 metres high, with a 2.5 metre extension arm. These were installed within the last decade, noting the previous lights were only 6 metre tall poles. The lights themselves are 150 watts compared to the normal 8 watts to work in with the tree canopy on Queen Street. This indicates that the light levels have a higher level of service than they did previously. The trees themselves are deciduous and for the majority of the winter and autumn season there would not be leaf or canopy coverage on the lights.

- **Shading of properties –** this is one of the main concerns that has been raised over the years as houses on the southern side of the street in particular have a lower level of light filter through the trees. Whilst there has been efforts to try and clear some of the crown, this is being done with the health of the trees in mind. There wont be an increase in lighting levels to perhaps what is being asked for by the Hills as this could only be achieved with the removal of the trees. It is also not considered within the tree policy to remove trees based on shading impacts, a policy that is approved by Council.

- **Leaf drop –** as discussed above, it may be that there needs to be a further conversation (if the trees are retained) on level of service provision along Queen Street with the higher leaf fall that they face with the presence of the London Plan trees. This would likely be an operational cost increase therefore a rates impact. In Queen street and other areas, Council has offered bags for people to fill, that contractors would collect. Council utilities and roading unit do leaf pick up along the street, noting residents do sweep leaf litter into the gutters for contractors to take away. Noting that the contractors specifically go to tree lined streets more regularly in the Autumn season.

- **Evidence of healthy London Plane trees removed in other parts of Rangiora –** staff can find no evidence of healthy trees being removed.

3.3. The London Plane (Platanus acerifolia) trees along Queen Street have for a number of years been a topic of debate. As the trees grew in size the Council were made aware by the Hills of issues relating to leaf fall and shading.

3.4. Staff have received consistent responses from peer reviews on management of the trees. There have been three reports done during this period that have looked at the management and health of the trees. The most recent being the Warner report from 2022. Treescape in 1996 and Treetech in 2007 and 2010 also have submitted reports on the trees. The common theme with each report has centred on the future maintenance of the trees and what interventions may prove problematic for the health of the trees themselves. Crown topping has been noted as problematic and not good for the health of the trees or for the outcomes being sought by the Hills.

3.5. In 1996 a report was presented to the Services Committee which recommended that the trees receive additional pruning to reduce the density of the canopy but retain the existing height. It was also recommended that consideration be given to replacing selected trees on the south side of Queen Street. The Services Committee supported additional pruning works to be carried out. It should be noted that there was no mention of a decision to stop pollarding prior to this, it appears this was an operational decision to allow the crown to grow as it had.

3.6. In the same year a report was produced by Treescape who recommended that the two most viable options for the trees long term was to either remove the trees and replace completely or allow the trees to develop into large open crown specimens. This report, along with the 1996 staff report is attached.

3.7. In2007 Treetech produced a report that noted in its conclusion that the trees proved a high level of amenity to both the immediate area and the town of Rangiora as a whole. The report noted the trees will become more of an asset as they develop and they will form a “monumental” style avenue in the future, such as can be seen today in 2023. The report did go on to suggest that there should be a phased removal policy with the objective to retain cover and provide an irregular age class structure to the street. This report also indicated that further consultation should be undertaken with residents as well as consideration of a phased felling and replacement scheme.

3.8. In this report Treetech looked closely at every tree using two separate arboricultural tree assessment methods. The STEM working method looks at the condition (health) amenity (community benefit) and notability (distinction) of the trees. The ISA working method looks at species rating, condition and location. The total economic value of the trees taking an average of the results received by both methods is $316,879.19.

3.9. The 2010 Treetech report focused on three options, that included continuing to maintain the trees as per the existing tree maintenance contract. Crown reduction to lower height of the trees, and a third option of pollarding mature trees. The report identified some issues with pollarding especially with the specimens in question within Queen Street. Mature Plane trees are noted for not taking well to pollarding and the risk of death for the tree is high.

3.10. The report recommended three potential options for the maintenance of the trees. These included:

3.10.1. Option 1 - As per existing tree maintenance contract, which requires crown pruning in such a way to reduce the spread of the branches but not to encourage vigorous re-growth. This option also recommended a phased replacement programme be put in place.

3.10.2. Option 2 - Crown reduction to lower the height of the trees as well as reducing the width of the trees. This is essentially what is known as a reduction. A reduction requires a regular maintenance programme in order to keep the trees at the reduced size long term

3.10.3. Option 3 - Pollarding the trees which reduce all lateral material from the tree and like a reduction will require an ongoing regular maintenance programme.

3.11. Russell Wedge the Parks and Recreation Manager at the time produced a report for the Rangiora Community Board which recommended that option 1 from the 2010 Treetech report be implemented. At the meeting held to hear the report on 9th June 2012 Barbara Hill a resident of Queen Street presented a power point presentation which outlined her concerns regarding light and leaf fall. At this meeting the Rangiora Ward Advisory Board chose not to endorse crown reduction or pollarding but instead supported the ongoing maintenance as per the below recommendations.

The resolution from the Board is below:

THAT the Rangiora Ward Advisory Board:

(a) **Receives** report N° 100527017961.

(b) **Recommends** to the Council that it proceed with Option 2.

AMENDMENT

Moved J Gerard Seconded Councillor Cruickshank

THAT the Rangiora Ward Advisory Board:

(a) **Receives** report N° 100527017961

(b) **Supports** the scheduled maintenance prune (Option 1 on a three year cycle) as the base for the Plane trees on Queen Street as proposed in the Treetech Ltd Tree Report, Queen Street (100527017912) but provide heavier prune and thinning

(c) **Notes** the Plane trees on Queen Street are due for their schedule maintenance prune this winter, 2010.

(d) **Notes** any tree branches will be cleared away from the street lights or residential properties during the maintenance prune.

(e) **Notes** a stage replacement programme for the Plane trees will be implemented when trees require replacement and notes that with tree No. 17 and 27 removed, and replaced 2010 with the same variety of Plane tree.

3.12. The trees are now lifted and thinned as much as possible with some trees having so few lateral branched the arborists are having trouble climbing them.

3.13. It is important to note that the options presented in the report in June 2010 were mutually exclusive. It is not possible to achieve a mixture of either of the options as each pruning method induces a different growth response from the tree and therefore different ongoing maintenance requirements.

3.14. The resolution stated that a staged replacement programme be implemented when trees require replacement. Currently the trees are all showing average form and vigour with few structural faults. In terms of health there are no current reasons why the trees should be replaced.

3.15. In 2011/12 a further complaint was received from the resident of 59 Victoria Street. Again the complaints related to the lack of light due to shading from the trees and also the amount of leaf fall. As a result of these complaints a number of meetings were held with Council staff and Treetech representatives. No resolution was able to be achieved through these meetings.

3.16. In the 2012 staff report to the Rangiora Community Board, the following was presented within the report (attachment vii):

Understanding the notability of these trees staff undertook a survey of the residents of Queen Street to establish what those most affected wanted to see happen with the trees. Staff worked with Treetech to identify the four most viable options for the ongoing maintenance and management of the trees. Residents were asked to choose an option and explain the reasons for their choice. The consultation material which was sent to each Queen Street property is attached to this report. The results are summarised below:

Pollarding	*2*
Staged replacement	*6*
Selected removal	*2*
Remain the same	*5*

The comments associated with each submission are attached to this report. It is clear however that there is an obvious difference in opinion regarding what exactly to do with the trees long term.

The trees do not only affect the people living in Queen Street. The trees have created an iconic avenue effect which is enjoyed by many from around the district and any potential removal of trees will create a lot of public debate. Staff believe it is important that wider consultation is completed before any decision to remove trees is made.

3.17. The 2012 report offered the following recommendations for the Rangiora Community Board to consider:

(a) **Receives** report No. 120306011853.

(b) **Notes** that maintenance of the trees in line with the current contract has been undertaken on three separate occasions this financial year.

(c) **Approves** staff continuing with the current tree maintenance programme for the Queen Street trees.

(d) **Requests** staff to circulate the 2010 Arborist's report to all residents of Queen Street.

This set of recommendations are what the community at the time supported. To this end the following was sent by the CEO to the Hills in 2013:

Dear Mr and Mrs Hill

Thank you for your detailed letter regarding the London Plane street trees in Queen Street, Rangiora.

The Council has suffered a significant amount of tree damage as a result of the recent North West winds. Large numbers of street trees and parks trees have been affected. Relative to other areas in the district the damage to the trees in Queen Street is considered minor. While the dangerous fallen branches have been removed it is likely that Council Arborist's will have to return to undertake some clean-up work in Queen Street. This is not likely to be completed for at least 3-6 months as the Arborist's continue to deal with health and safety related tree issues.

In March 2012 a report outlining the issues you have raised in your letter was presented to the Rangiora Community Board. The minutes indicated that you along with Mr Avent attended and spoke at that meeting. I have attached the report for your information. As part of preparing the report Council staff consulted with Queen Street residents. The outcome from the meeting was that staff would continue with the current tree maintenance programme. This resolution meant that the Board was not in favour of the staged removal of any of the trees along Queen Street. Please see below for the exact wording of the resolution.

Moved J Gerard Seconded G Miller

***THAT** the Rangiora Community Board:*

***Receives** report No. 120306011853.*

***Notes** that maintenance of the trees in line with the current contract has been undertaken on three separate occasions this financial year.*

***Approves** staff continuing with the current tree maintenance programme for the Queen Street trees.*

***Requests** staff to circulate the 2010 Arborist's report to all residents of Queen Street.*

In your letter you ask why the recommendations of a previous community board have not been implemented. The Council has delegated decisions in respect of Street Trees to community boards, and therefore, without rescinding this delegation, the authority rests with the community board.

The effect of the March 2012 community board resolution is what the staff must give effect to. A community board has the ability to reconsider any decisions it has previously made.
The information you have provided in your recent letter does not provide any further information or detail that was not already considered by the board at its meeting in March 2012. Therefore, at this time, staff believe the Community Board does not need to reconsider the matter.

3.18. This resolution was the last made at the Community Board table and therefore is the current standing as a decision. Which can be seen in the letter sent by the CEO above.

3.19. In the 2022 Warner report, it was noted that the avenue of London Plane trees are very significant in the local landscape and may have some historical importance within the Queen Street setting. The report noted that the four London Plane trees near the Hills residence have been heavily crown lifted to clear the road, footpath and private properties. There are some signs of overhanging branches into private property by approximately 1-4 m, which is to be expected with mature tress with a spreading crown such as these.

The report concludes that the trees should not have further crown lifting or removal of lower branches, except the tree at number 17A, which has a small lions-tailed lower branch over the footpath which would benefit from removal.

It is recommended that all of the trees have a light crown clean to remove any minor deadwood and secondary growth. Take great care to ensure that no more lions-tailing is caused by removing too much secondary growth.

3.20. Each report, noted the trees showed average form and vigour with few structural faults. The most recent report from 2022 concluded that the trees are in a good condition for health and a fair condition for structure, giving them a fair overall condition. With this note, and the ongoing maintenance program, there can be some confidence that the trees themselves pose a relatively low health risk.

3.21. Correspondence was received in 2021 and again in 2023 from a resident along the western end of the street who was also concerned with the shading of her property due to the presence of the trees. The resident requested consideration of removal or much stronger pruning to let further light into the house, noting it was causing her health concerns. This resident is aware of the work being led by the Hills given it is supportive of the outcomes raised.

3.22. While street trees are often seen as a nuisance, they also provide many benefits and are a significant tool we can use to address our climate and ecological crisis. The Council's draft Natural Environment Strategy outlines the benefits provided by large trees in urban areas. Some of these benefits include the following:

- Studies show that spending time near trees improves mental and physical health by increasing energy levels and speed of recovery, while decreasing blood pressure and stress. It is acknowledged that the opposite may be true for some of the residents who wish to have the trees removed.
- A tree can absorb up to 150kg of CO^2 per year. This ability to sequester carbon makes trees a valuable and cost-effective climate change mitigation tool.
- Two medium-sized trees produce the oxygen required for one person over a year.
- Landscaping with trees can increase property values.
- Trees protect biodiversity by providing habitat for fauna.
- Large urban trees filter pollutants from the air.
- Trees have been shown to intercept between 9 and 61% of rainfall reducing the amount going into the stormwater system.
- Trees in urban areas can have a cooling effect.

- Trees properly placed around buildings can reduce air conditioning needs by 30% and save energy used for heating by 20 to 50%.

3.23. Rangiora's urban tree canopy has not yet been measured but is likely to be declining due to the loss of private yard space arising from higher density urban infill and larger houses on smaller sections in new subdivision areas. To compensate for this trend the draft strategy proposes that a target be set for urban tree canopies with one additional specimen tree to be planted over time per new resident. This will not compensate for the loss of existing trees and it will take decades before the full benefits of new trees will be realised. The removal of the Queen Street trees goes against the stated desired outcomes of the draft strategy which include;

- The District's natural environment is valued as critical infrastructure, essential to our wellbeing and the survival of other species we share Earth with.

- Urban vegetation, including street trees, is valued by the community as making a significant contribution to urban resilience, human health and environmental sustainability.

4. ISSUES AND OPTIONS

4.1. The RACB has several options of which to consider for the Queen Street trees. There have been several staff reports since 1996 that have looked to retain the trees with interventions, these interventions may continue, however they will not resolve the concerns that the Hills have outlined. From summarising of the situation, as a Council the tree policy and general practise that we have does not support the removal of healthy trees, this is in direct conflict with the wishes of the Queen Street residents in what they are seeking from the RACB. It should also be noted that staff support the retention of the trees due to the many benefits of having mature canopy specimen trees within the town centre. This includes amenity value, biodiversity, cooling of urban areas in summer and that trees are seen as a tool in building the well being of a community. The loss of any of the 43 Queen Street Trees would be a noticeable change to the town centres landscape and it is unlikely that the amenity value seen now would be recovered with new plantings.

The options detailed below are mindful of the fact that there is the conflict between retention and removal, for the reasons that staff have outlined and for the reasons that the Hills have continued to raise since the mid-90s. The reports to date have left the issue at an impasse with both parties continuing to hold firm on their views. The options therefore explore the finite outcome of either retaining the trees or removing them. Both come with ongoing expectations that are discussed in each option.

4.2. Option 1. Tree removal as per the deputation of 9 August 2023.

This option would put a line underneath the issues being raised by the Hills of Queen Street who want to see the trees removed. The flip side of this is the unknown of those who support the retention of the trees. At this time there is not a clear mandate that all residents or the majority are in favour of this approach. More discussion or engagement would be required with street residents and wider community if this was the option the RACB favoured or approved.

Staff also expect that there would be wider community interest in this matter with the trees being a notable feature of the Rangiora town centre. The removal of the trees would ensure that there is a generation that would not experience a canopy effect like this. To detail this further the below table of pros and cons for retention versus removal has been added to the report:

	Pros	Cons
Retain	Amenity value (landscape and aesthetic) Biodiversity / Environmental benefits including habitat retention and shading Urban tree canopy Urban heat island No additional cost to retain Creating a special character zone (avenue effect through to Victoria Park) Sustainable goals Carbon emissions Bird movement corridor and habitat One gone cannot be replaced	Issues raised by Hills wont be mitigated including ongoing leaf fall and shading
Remove	Mitigation of the issues raised by the Hills Lower footpath maintenance costs	Not all residents have shown support for this option Will take a generation to bring back the iconic amenity of the trees (if at all) Wider community criticism High cost to remove and replace Loss of urban tree canopy Contradicts street and reserve tree policy Impact on Victoria park as these provide shelter or an edge effect for the parks notable trees.

4.3. Option 2. Retain the trees as they currently are.

This option would give some clarity on the future of the trees having a decision that they be retained. However this does not mitigate the issues that have been raised in the deputations, letters and correspondence since 1996. During this period there have been operational strategies considered and utilised to try and mitigate the ongoing or overall concerns raised. The fundamental issue is the presence of the trees wont allow for those issues to be overcome, hence the ongoing need for the residents to seek a finite decision. The Council's own tree policy does outline that the trees if assessed as they are would be retained. As can also be seen from the table above in 4.2, there are a variety of pros or benefits in retaining the trees beyond just the Street and Reserve Trees Policy.

This option has also been supported by previous Community Boards or decision making committees. In 2012 community consultation was undertaken which didn't identify an overwhelming desire from the overall residents within the street to remove the trees.

4.4. Option 3. Staged replacement program for the trees.

This forms part of the option or considerations put forward by the residents who made the August 2023 deputation to the RACB. They would like to see a staged replacement schedule that still means all trees be removed immediately or within a five year period. Whilst this would see new trees planted, they would take some decades to provide anywhere near the notability of the current London Plane trees. It should also be noted that the space and situation now for trees to be replanted will not be as good as what the trees had in the 1960s when they were planted. More services and in ground restrictions mean any new or succession trees would likely not reach as healthy specimens as we see today. A program such as this may take the form of a selective removal and replacement program, where some trees are removed and not replaced, or the age structure of the tree canopy is staggered (as in the 2010 report from Treetech). Another form a program like this could take is the removal of trees in selected areas, such as just on the northern boundary of each property. With any of these options, staff would require time to put these together for both cost, and timeline so that any program could be well understood by all parties.

Engagement options

Given the high profile nature of the trees and there notability, staff would not recommend only consulting or engaging with immediate residents. The wider Districts views on the trees should be considered alongside the immediate residents so that the RACB has a good awareness of how the community as a whole view this proposal. The trees are a significant asset for the district given how notable they are and well known as part of the wider Victoria Park and Queen Street landscape. For this reason, staff recommend that the RACB should do district or wider community consultation.

This option ensures that the RACB can consider the wider feelings or views of the Rangiora community as well as the issues raised by the immediate neighbours. Quality decision making is based on understanding the wider as well as localised impact of making a change within the landscape of a community. Whilst the residents have concerns to be considered, that is also true of the wider community and ensuring that they are part of any outcome in relation to this topic. To not engage wider would be a high risk to any decision made by the RACB.

It is clear the trees are a wider community asset. The board does have the option of consulting with only the residents in the street, however this carries risk from the wider public who may well have an expectation that any removal of the trees would be something they can comment on. There is also a risk that residents in the street may

have views that differ from neighbour to neighbour. With this in mind, staff would recommend that if the RACB is considering removal or replacement, that community wide consultation is undertaken prior, with results collated and presented in a report back to the RACB.

The consultation plan would need to include a replacement program with a landscape concept so both residents and wider community understand the full proposal.

The RACB should note, that any replacement tree would not reach maturity or contribute to the urban tree canopy for a period of 10-15 years plus. The current trees are well established and had the benefit of much larger tree pit areas when they were first planted in the 1960s. Any new street trees are going into a growth environment that is already constrained by sealed road, footpath, and services. For example the overhead power lines are now buried, a contributing factor to trees struggling in street corridors, compared to when the Plane trees were planted.

Implications for Community Wellbeing

There are implications on community wellbeing by the issues and options that are the subject matter of this report. The trees are a notable asset and offer great amenity to people across the community. Any removal of these would change the character of this area of Rangiora and receive community comment. Trees can be divisive as those that live near them are often the reasons for any removal request, whilst others in the wider community consider them to be as significant as a park scape or natural landscape. Contrast this with those local residents that have come forward and they have different issues as a result of living near the trees.

Human health, especially that of vulnerable populations such as older people and people with disabilities, can be adversely impacted by heat waves. Studies have shown that the strategic placement of trees in urban areas can cool the air by between 2^0C and 8^0C making the cooling effect of trees on urban streets even more important as the climate warms. The 2022 NIWA report commissioned by the Council predicts that the number of hot days (>25^0C) in the district will double (increase by 15-25 days) by the end of the century under a moderate GHG scenario and more than triple under a high concentration scenario (increase by 30 to 60 days). Massey University and Environmental Health Intelligence New Zealand have just completed a research project entitled ‘Heatwaves and Mortality: A Pilot Study for the Canterbury District 2023’ and Te Mana Ora (formerly Community and Public Health) is in the process of finalising contractual arrangements to receive MetService heat alerts (days of extreme heat or a run of hot weather for two days or longer) for the coming summer. The Council’s Civil Defence Emergency Management Team is currently considering the emergence of heat waves as a significant potential risk and options for mitigating it.

Large urban trees are also excellent filters for urban pollutants and fine particulates that affect human health.

4.5. The Management Team has reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. Mana whenua

Te Ngāi Tūāhuriri hapū are not likely to be affected by, or have an interest in the subject matter of this report. As this is not a matter relating to identified projects, it is not expected that this topic will be of interest.

5.2. Groups and Organisations

There are groups and organisations likely to be affected by, or to have an interest in the subject matter of this report. We have a number of environmental groups that support

the increase in urban canopy and the health benefits this can have on a community. Staff are also expecting that other groups might come forward if the trees were recommended for removal.

5.3. Wider Community

The wider community is likely to be affected by, or to have an interest in the subject matter of this report.

In 2012, understanding the notability of these trees staff undertook a survey of the residents of Queen Street to establish what those most affected wanted to see happen with the trees. Staff worked with Treetech to identify the four most viable options for the ongoing maintenance and management of the trees. Residents were asked to choose an option and explain the reasons for their choice. The consultation material which was sent to each Queen Street property is attached to this report. The results are summarised below.

Pollarding	2
Staged replacement	6
Selected removal	2
Remain the same	5

5.4. The comments associated with each submission are attached to this report. It is clear however that there is an obvious difference in opinion regarding what exactly to do with the trees long term.

The trees do not only affect the people living in Queen Street. The trees have created an iconic avenue effect which is enjoyed by many from around the district and any potential removal of trees will create a lot of public debate. Staff believe it is important that wider consultation is completed before any decision to remove trees is made.

6. OTHER IMPLICATIONS AND RISK MANAGEMENT

6.1. **Financial Implications**

In 2007 a study of the Queen Street trees showed their economic value to be $316,879.19 or $7369.28 per tree. This is currently budgeted within the tree contract. Any removal of the trees would have to go forward to the Long Term Plan as a budget bid for operational funding. Given there is 43 trees, it is estimated that the contract rate for removal would likely be approximately $1,000 per tree, although this would still need to be quoted if this was the course of action supported.

The trees are iconic to Rangiora and the district. Staff believe that it is imperative that wider consultation is carried out before any decisions are made regarding removal. The removal of any tree invokes a certain degree of negative public opinion and due to the importance and notability of the Queen Street trees it is expected that this opinion will be strong.

It is estimated in the Urban Forest Plan for Otautahi Christchurch that trees can increase property values by 20%. Residents could be impacted by a fall in property values if the overall amenity of the street is reduced by the removal of the trees.

6.2. **Sustainability and Climate Change Impacts**

The recommendations in this report do have sustainability and/or climate change impacts.

A recent amendment to the Council's Significance and Engagement Policy approved by Council for adoption with the 2024 Long Term Plan states that:

'If a decision or proposal satisfies one or more of the following criteria, the matter is likely to be significant:

- The impact or consequences the decision or proposal will have on climate change mitigation (through greenhouse gas emissions) or adaptation (the reduction of risk to natural hazards exacerbated by climate change) is substantially negative. Staff will report on this significance through the 'Community Views' and the impact through the 'Sustainability and Climate Change Impacts' section of a Council report.'

The proposal to remove the trees will have a negative impact on climate change mitigation and adaptation as mentioned elsewhere in this report for some decades to come. As the trees are likely to be replaced with a smaller species to reduce nuisance from shading, the full benefits currently provided by the existing trees may never be realised.

The effect on climate change from removing a single street of trees may not be considered to reach the required level of 'significance' referred to by the Policy as 'substantially negative'. However, the incremental loss of mature tree canopy in Rangiora resulting from urban intensification and residents' requests will help to exacerbate the urban heat-island effect through reductions in the cooling effects of shading and evaporation. There will also be a reduction in carbon sequestration and every little bit counts in a district where high growth is increasing the area's carbon footprint. It is important that the needs of residents currently directly impacted by the trees is balanced with the need to urgently address climate change issues and consider the wellbeing of future generations as required by the Local Government Act 2002.

6.3 **Risk Management**

There are risks arising from the adoption/implementation of the recommendations in this report. With two competing views on the future of the trees, there is going to be ongoing concerns depending on the actions taken with the trees. To retain them will not meet the needs of the residents who have raised issues and been in correspondence with Council since 1996. In contrast to this is the residents of the district who have not yet had the opportunity to discuss this issue and make comment on what can be considered notable assets in the Queen Street trees.

There is also a risk that the removal of these trees will set a precedence for the removal of other large trees that have similar impacts on residents. The precedence of the removal of other trees in Rangiora is being cited by Queen Street residents as a reason for the removal of these trees to be considered and their removal could result in an ongoing domino effect.

6.3 **Health and Safety**

There are not health and safety risks arising from the adoption/implementation of the recommendations in this report. The report does not propose immediate works.

7. CONTEXT

7.1. Consistency with Policy

This matter could be a matter of significance in terms of the Council's Significance and Engagement Policy. If consultation is recommended, then this would be a topic of significance for the wider community as discussed previously in this report.

7.2. Authorising Legislation

Local Government Act determines how Council can manage its assets and undertake community consultation.

7.3. Consistency with Community Outcomes

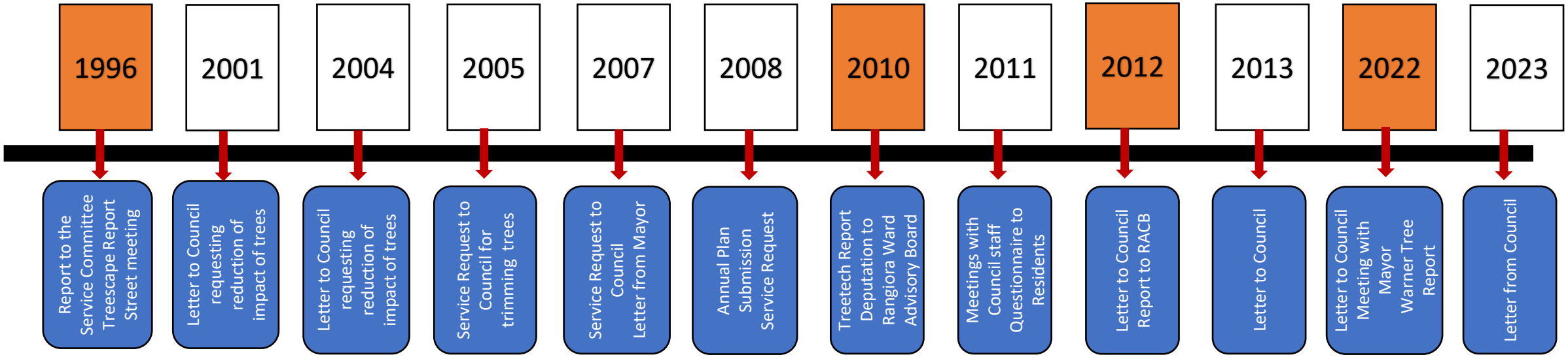
The Council's community outcomes are relevant to the actions arising from recommendations in this report. The outcomes focus on retention of environmentally friendly outcomes but also describe liveability and quality housing for the districts residents. Both would apply in some way dependant on the recommended actions of this report.

7.4. Authorising Delegation

The Rangiora Ashley Community Board have the delegated authority to consider the retention or removal of the Queen Street Trees.

Queen Street Trees

Timeline for interaction with Council



Timeline for interaction with Council

1996	Street Meeting. Report from the Council said the trees had to be removed or left to grow to their full potential. Plane trees are a large growing tree and would not be planted in streets now, as they are considered unsuitable. **Residents were guaranteed that the trees would not be allowed to grow any taller from what they were at that stage.**
2010	Presentation made by residents, to the Rangiora Ward Advisory Board. Tree Tech submitted a report suggesting options for heavier pruning, scheduled tree replacement and a lowering of the crown. Council staff recommended the continued maintenance of the trees on a three-to-five years schedule, which reduced the spread and some height reduction of the trees without encouraging vigorous re-growth. Branches growing around the streetlights and close to residential properties would be removed. **The Board originally recommended Option 2 which would reduce the height of the trees, but this was later altered to only support Option 1 with heavier pruning and thinning without the height reduction, despite it's 1996 commitment to keep the height of the plane trees at a lower level.**
2012	Report from the Rangiora Community Board meeting states that having **undertaken pruning three times, without any height reduction**, the Council decided not to continue work due to a lack of budget.
2022	Warner Tree Report – describes this previous pruning as **"heavy crown lift."** Council was not addressing resultant problems such as blocked drains, heavy shading, vast quantities of leaves, damaged footpaths and health and safety issues.

2010

2023

Resulting Problems

- Unlike other Rangiora streets which have London Plane trees planted in them, Queen Street runs East to West, with the majority of residential properties on the south side of the street.
- Intrusive shading of houses on the south side of the street for most of the day, during the autumn months. Some trees have reached a height of 25 meters, with a width of 17 meters.

Resulting Problems

The streetlights are blocked or obscured by the canopy, making the street dark and unsafe

Resulting Problems

- The area was dug up, mesh was laid in the trench to prevent the tree roots spreading out under the road but forced the tree roots into neighbouring properties. This resulted in a smooth road but an undulating footpath causing a safety issue.
- There are tripping hazards for pedestrians as they negotiate the severely uneven footpaths. Very dark at night.
- Roots have significantly damaged footpaths. The roots also encroach into residents' properties by growing under their fences and then spreading through their vegetable and flower gardens and blocking drains resulting in flooding.

Resulting Problems

- Massive leaf drops occur from April until the end of June. Residents, many of whom are in the older age group, are finding it increasingly difficult to keep their properties free of leaves.
- The constant leaf fall blocks the guttering and down pipes of houses and causes damage to the drains on properties.
- Plane tree leaves take up to two years to begin to decompose as they have a high oil content.

Resulting Problems

- The increasing size of the trees is creating an unacceptable safety risk to the public from falling branches.
- Large branches are breaking off, which has resulted in a number of near misses. The pictures above show examples emphasizing how lucky it was that nobody has been hurt or worse. The trees are a serious health and safety risk to the community.

Council's Community Outcomes

Community Outcomes describe how Waimakariri District Council aims to achieve meeting the current and future needs of its communities, as part of its Community Outcomes the Council undertook:

- To ensure a safe environment for all by minimising harm to people from natural and man-made hazards.

  However, the trees negatively impact on the environment for the residents living beside them and create hazards, as their roots damaged footpaths and the streetlights are blocked making the street dark and unsafe.

  Also, the trees are dangerous due to their size and the regular breaking of branches causing a serious health and safety risk to the community.

- Harm to the environment from sewage and stormwater discharges is minimised.

  However, the tree roots invade the residents' sewer systems and causes flooding, also the constant leaf fall blocks the guttering and down pipes of houses.

- Housing is available to match the changing needs and aspirations of our community.

  However, the Queen Street residents are unable to enjoy their properties which are dark and cold due to the shading of the trees and the constant maintenance required to deal with the leaves and root system.

- There are wide ranging opportunities to support people's physical health, social and cultural wellbeing

  However, the fluffy coating in the seed pods and the tiny hairs that coat the leaves causes respiratory and eye irritation. The constant shading also causes Seasonal Affective Disorder.

Considerations

1992

2012

- The trees were planted in the late 1920s-1930s, with the understanding of the residents that they would be pollarded. This happened annually until without consultation it ended when the power lines were put underground in the late 1980s. They are in a residential street situation, where their size should have been controlled.
- An overwhelming majority of residents in the street want the removal of the London Plane Trees. A number of residents might support the trees being pollarded as they used to be, however, we believe it is too late to try and control the impact of the trees at this stage, as their root systems have become too large.
- London Plane Trees are not natives to New Zealand. The Queen Street residents will support the replacement with native trees.
- The residents of Queen Steet have repeatedly requested elected members and the staff to curb the growth of the trees, but no effective actions have resulted. If the Council had acted when requested in 1996 or 2010, the removal of the trees now may not have been necessary.
- Although the Council Policy is not to remove healthy trees, “healthy” London Plane Trees were removed in:
  - 2008 - Sycamore Close, Rangiora
  - 2013 - Arlington Boulevard, Rangiora
  - 2016 - Oak Drive, Rangiora
  - 2019 - Church Street, Rangiora
- These trees are a severe health and safety matter for the Board to address, given the height, shading, maintenance issues to residents, and falling branches.

The outcome being sought

Residents are not against trees and want to maintain the ambiance Queen St used to have when the Plane Trees were being controlled. We believe the acceptable options are:

- Remove the Plane trees and replace them with a less intrusive and aesthetic native tree species that enhances peoples' lives.
- Or create a staged replacement schedule for the trees where largest/most troublesome trees could be removed immediately with remaining trees pruned and replaced over the next 3-5 years.

Now aged 75 years, we are entitled to live with dignity in a warm, dry home. We should not have to spend so much of our time and energy trying to deal with the effects of oversized invasive trees, a burden others in the town don't have to deal with.

Alan & Barbara Hill

WAIMAKARIRI DISTRICT COUNCIL

REPORT

FILE NO:	464-28, 554-02/96082100031
DATE:	21 August 1996
REPORT TO:	SERVICES COMMITTEE
FROM:	COMMUNITY FACILITIES OFFICER
SUBJECT:	QUEEN STREET PLANE TREES

1. SUMMARY

This report outlines the result of a public meeting to discuss a request by some of the residents of Queen Street to prune the Plane trees.

2. RECOMMENDATION

1. That the following actions be confirmed

   i. That additional pruning work be carried out on the trees this winter (1996) to substantially reduce the density of the canopy, but retaining the existing height of the trees.

   ii. That a further meeting with the residents be held in the autumn of 1997 to assess whether the residents are satisfied with the results achieved by the pruning in 1996.

   iii. That consideration be given to replacing selected trees on the south side of Queen Street which are still causing particular concern to adjoining residents.

3. BACKGROUND

A request was received from Mr Stalker of 7A Queen Street, requesting that the plane tree outside his property be topped due to the effects of shading. He was advised that this was not our current practice and he subsequently contacted a number of other residents in the street and they spoke to the Services Committee. Following this, it was agreed that a street meeting be held to canvas all views on the issue.

This meeting was held on Saturday 27 July and was attended by approximately 20 residents of Queen Street, plus a representative from the Keep Rangiora Beautiful Committee. Also in attendance were Councillor Ayers, Shepherd-Wright, and Smith.

The residents discussed their concerns about the trees which primarily relate to shading (autumn period the worst), problems with leaf fall, shading of street lighting and leaves blocking the gutters and subsequent problems with the frequency of cleaning out the gutters and footpaths.

4. OPTIONS

1. Topping

A severe topping of the trees was preferred by a number of the residents. Although not a complete pollard down to the original stumps, it would be very close to this and a similar result.

Topping of trees is not a good arboricultural practice as it leads to a range of other problems. If pruned in this way, the trees will produce a mass of new shoots. This will cause a dense low canopy and a very heavy shadow, although this will not be thrown as far. The amount of leaves produced and subsequent leaf fall will probably be more excessive than currently is the case. This pruning practice will need to be carried out every year to maintain the trees at this height. Also over a period of time, it will lead to decay and disease in the trees and a need for their replacement earlier than otherwise would be expected.

2. Crown Reduction or Thinning

The trees were thinned last year, but perhaps not as heavily as could have been done. Crown reduction still retains the shape and character of the trees and allows light to both filter through the crown and also to get underneath the tree, ie the crown is maintained at a much higher level. However care must be taken not to thin the trees too heavily, otherwise other problems may eventuate in terms of producing abundant new growth and allowing wind damage due to an open canopy.

3. Removal and Replacement

If it is decided that the trees are totally unsuitable for the site, it is preferred that the trees be removed and replaced with a more suitable species in preference to the option of topping.

A report from arboricultural consultants Treescape, providing comment on the options outlined above is attached.

5. DISCUSSION

At this stage Council does not have a clearly defined policy on the maintenance and removal criteria for its trees in reserves and streets. It is my intention to prepare such a policy for consideration in the near future. However, examples such as this and some other requests for tree removal in Church Street and Golding Avenue assist in establishing Council's philosophy on the matter of tree protection in the District.

The Council is at present encouraging the establishment of street tree planting throughout the District, through requirements for street planting in new subdivisions and also where kerb and channel replacement occurs, plus it is probable that the District Landscape Plan will provide guidance for planting of street trees in a number of existing streets. At present there are very few streets in our District that contain what might be described as medium to large trees. This will gradually change in the future, as recent plantings become established. Although new plantings are invariably smaller size trees than the Plane trees in Queen Street, many of them will still develop to a height where residents are concerned about shading and leaf fall.

Our objective and current practice, is to allow trees to grow as naturally as possible. The reason for this is twofold:

a. so that maximum amenity value is obtained from the trees
b. good arboricultural practices are followed which will ensure the continued long term health of the trees.

As such, Council needs to give careful consideration as to its willingness or otherwise to top or otherwise severely prune trees at the individual request of adjoining property owners.

6. CONCLUSION

The trees on Queen Street provide one of our more attractive avenue type plantings. However, due to the alignment of the street, the houses on the south side suffer problems with shading. Plane trees are a large growing tree and would not be planted in streets now, as they are considered unsuitable. It is my recommendation that topping of the trees is not a desirable option, primarily from a amenity and economic point of view, and also as it will not significantly reduce the problems that the residents on the south side our experiencing. The available options are significant crown reduction (thinning) (which has already been carried out) or removal and replacement of selected trees where residents are most severely affected.

Brian Milne
COMMUNITY FACILITIES OFFICER

554-02
960715059

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Christchurch
Ph/Fax: 03-326 2732

CLIENT : Waimakariri District Council

ATTENTION : Brian Milne

DATE : 4/7/96

RE : Plane trees Queen Street Rangiora.

This report has been requested to outline the implications involved in the reduction of the Plane trees on the south side of Queen Street, Rangiora .

If arboriculturaly correct crown reduction is to be carried out a regular maintenance schedule will need to be in place . This maintenance will require the removal of regrowth, and thinning of the dense crowns that will develop, as a result of the trees being reduced . If the maintenance isn't done every year, then the risk of branch failure and dense canopies developing is high .

The new growth that occurs will be weakly attached to the parent stem and spindly . Many stems will die or break, littering the ground and will look unsightly . The common mistake in thinking that topping trees will increase light and reduce leaf drop will quickly be proven false . The trees require a full crown of foliage to be healthy . Reducing the amount of foliage causes stem and root die back which consequently leads to decay.

The topping results in low, dense crowns, which cause shading, and blocks out street lighting . Compared to allowing the trees to grow to full maturity, developing open crowns, allowing natural light to filter through, with only some pruning required to direct the growth away from the street lighting .

Conclusion :

If the trees are to be topped, they will need to be pruned on an annual basis and the trees should never be allowed to develop full canopies again, due to the imminent hazard they would pose to the public .
The annual cost of such a task would be approximately $110 per tree .
The only two options that should be seriously looked at are :

Allowing the trees to develop into mature open crown trees .
or
Their complete removal and replacement with a slow growing species suitable to this site .

Yours sincerely

Total of 44 trees

Tim Rillstone
NZ Cert Arb.

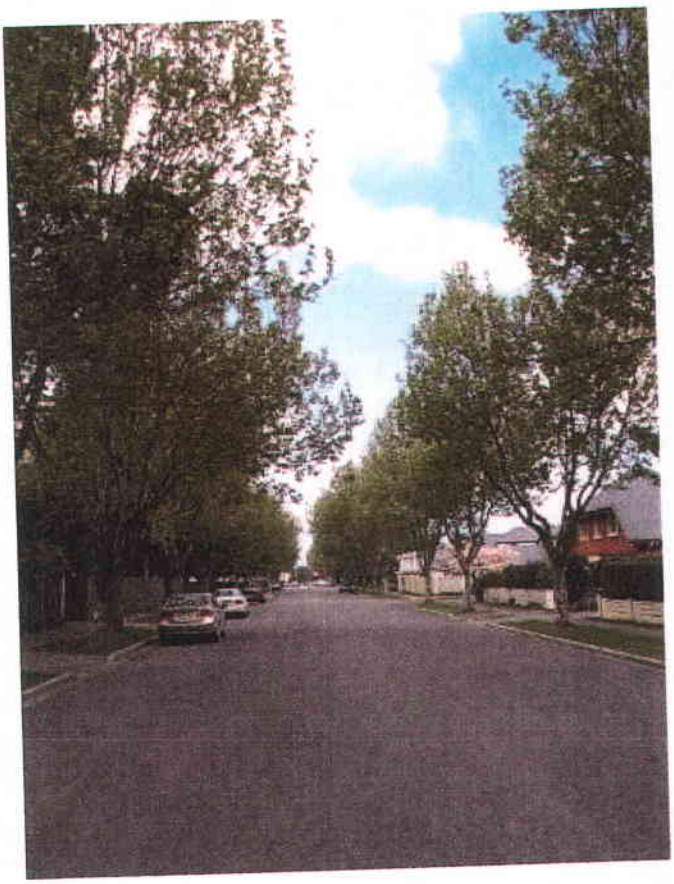
TREETECH
Specialist Treecare Ltd

Iain Mackinnon *Dip Arb. Dip For*
Cell Phone 021 223 4403

E-mail: jjimac@xtra.co.nz

Tree Report, Queen Street, Rangiora.

October 2007



For: Waimakariri District Council
Date: October 2007

Client Address:	Parks and Recreation, Waimakariri District Council Private bag 1005 Rangiora 7440
Site Address:	Queen Street Rangiora
Attention:	Russel Wedge, Parks and Recreation Manager
Dated:	October 2007
Prepared by:	Arboricultural Consultancy NZ Ltd PO Box 35 308 Christchurch
Arborist:	I. MacKinnon. Dip Arb: Dip For
Cell phone:	021 223 4403
Status	Draft
Our Ref:	mackinnon/treetech/211007/1107

Contents

1.0 Introduction

This report has been commissioned by Russel Wedge, Parks and Recreation Manager, Waimakariri District Council, Rangiora.

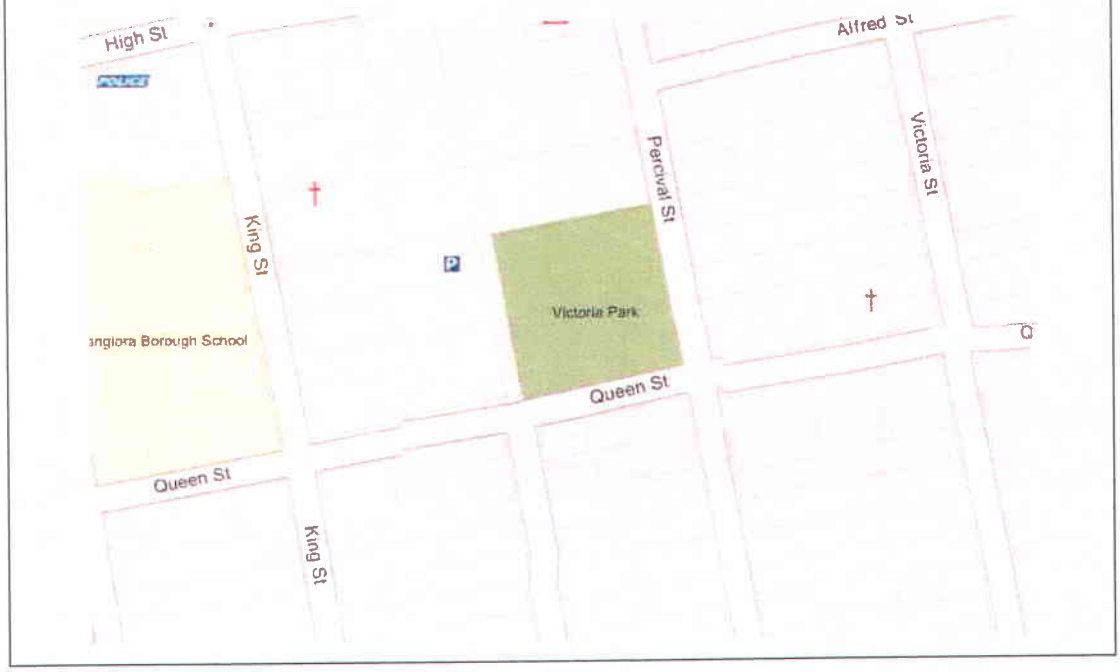
The purpose of this report is to provide an assessment of the general condition of the trees, the effects of the root system on the pavements and a valuation of the trees in Queens Street, Rangiora.

The inspection and photographs were taken between the 16th and 17th of October 2007. The weather was sunny and mild with a light breeze.

1.1 The Site Situation

Queen Street is a residential street located to the south of the Civic Centre and Library. The trees inspected are planted as a single row on the north and south sides of the road running from Victoria Street to King Street.

Map showing the location of Queen Street, Percival Street and King Street in relation to Victoria Park.



Queen Street runs approximately east / west and has residential properties located on both sides of the road, there is a supermarket (Woolworths) located at the eastern end on the junction of Victoria Street and Queen Street. Queen Street is also the location for Rangiora's premier park; Victoria Park.

The first three trees were planted in Victoria Park in 1902 when the park was purchased by the Borough Council. These were a memorial Oak for Queen Victoria, a second Oak to mark King Edwards Coronation and a weeping Ash as a memorial to those local men who fell during the Boer War. Later in 1907 the gardens were laid out and planted and more trees were added. These trees can be seen as mature specimens in the park. It seems likely that the two London Planes *Platanus x acerifolia* were planted at this time. These trees can be seen in the south east and south west corners of Victoria Park.

1.2 Scope of Work

- Undertake a Visual Tree Inspection (VTA) of all trees in Queen Street from King Street to Victoria Street.
- Gather basic data on the trees for the Councils street tree data base
- Comment on the effect of the roots on the pavement, road and sealed surfaces on residential property
- Provide a photographic record of all Plane trees in Queens Street
- Include a tree valuation using the STEM and ISA/CTLA systems
- Identify any remedial required
- Provide recommendations for the future management of the trees

1.3 Inspection Method

All the trees in the street were tagged using a plastic Latschbacher tag with a unique identifier stamped on them. Tree number one is located at the junction of Queen Street and Victoria Street and twenty two is located at the King Street end, all other trees are on the north side of Queen Street. A visual tree inspection (VTA) was then undertaken from ground level. No samples were taken or tests undertaken. A VTA is undertaken by observing the tree as a whole from a distance and then making a detailed assessment of various parts of the tree. This involves a 360-degree inspection of the tree noting any significant defects on a check sheet and making a photographic record as required. A brief check of the immediate area surrounding the tree is also made, taking into account non-tree details e.g. soil, drainage, buildings. A report on each individual tree or group of trees (as agreed prior to inspection) is produced as a result of the inspection.

The tree price used in the calculation is based on a quote from The Little Big Tree Company (quote by phone 02 10 07) is for a 2.2m tall tree with a stem diameter of 40mm: cost $130.00.

The maintenance figure of $32.50 per year was an estimate based on discussion with various parties.

The figure of $150.00 for site preparation, transport and planting is an industry accepted average figure.

The value of $1350.00 used for the largest transplantable tree is from a Dunedin nursery and is current for this planting season.

The species rating for the ISA/CTLA valuation was arrived at in May this year during a training course run by CCC and is being used as there is currently no South Island data available.

1.4 STEM Working Method.

After a visual inspection a score sheet is completed and the values calculated based on these observations.

The STEM system is based on 3 main criteria:

1. Condition (health)
2. Amenity (community benefit)
3. Notability (distinction)

Points are awarded for each section and then this score is applied to a replacement tree value to produce the final tree value. All costs applied in this situation are based on standard Local Authority discount rates plus GST.

1.5 ISA/CTLA working method

After a visual inspection a score sheet is completed and the values calculated based on these observations.

3 sheets are completed and values for the following criteria are calculated:

1. Species rating
2. Condition
3. Location

Each of these values is a calculated as a percentage and is applied to a replacement tree trunk area value and a replacement cost. This is then used to produce the appraised value in dollars rounded to the nearest $100.00 including GST.

2.0 Executive Summary

Principal site characteristics:

- The section of the street surveyed is bounded in the east by Victoria Street and in the west by King Street. The street runs east west with trees planted on both sides of the street at even spacing
- This avenue was most likely planted fifty years ago and the trees show evidence of having been regularly pollarded in the past. This style of tree management is contrary to current Waimakariri District Council (WDC) tree policy and hasn't been carried out for some years now.
- There are 43 trees planted in the survey area. They are all of the same species i.e. *Platanus x acerifolia* London Plane. Average stem diameter at 1.4m = 35.7cms, height = 14.2m and crown spread at the widest point = 13.58m
- Planting pits were not well defined as all the trees were planted in the grass berm on the road side edge. The berm and pavement were approximately 4m wide and the trees set in 600mm from the kerb edge.
- Pavement damage was observed around many of the trees but not all.
- Pavement damage was also observed which was most likely caused by residents or park trees
- Damage was observed up to 6m from the stem in one case

2.1 Tree rating

The following table shows the numbers of trees in each of the ratings as gathered in the Tree Data table at the end of the report. As part of the process of gathering the basic data each tree was awarded a rating based on condition at the time of inspection. This rating takes into account the structure of the tree as well as the vigour and vitality and is used to illustrate the amenity value of each tree. (See page 29 appendix 8.4 for definitions.)

Rating	Number
A	4
B	26
C	5
R	8
Total	43

2.2 *Tree value*

STEM	$640,557.08.
	Average value = $14,896.68 per tree
ISA / CTLA	$228,800.00 (Rounded to nearest $100.00)
	Average value = $5,320.94 per tree

3.0 Residents

During the survey period I was approached by several residents who showed interest in what I was doing. The general consensus of opinion was that the trees were an asset to the town but that they had been allowed to become too large. This resulted in too many leaves during the fall.

Only one person expressed any negative views regarding the trees. This person was not a resident of Queen Street but lived in a nearby street. This person held very negative views regarding trees in general but was most concerned with the effect the roots had on wheelchair users.

The general consensus of the residents I spoke to was that:

- The trees should be retained
- The trees required crown reduction on a regular basis
- The timing of the road sweeper should be adjusted to coincide with maximum leaf fall

4.0 Tree roots

Tree roots have three major functions:

- They absorb water and nutrients from the soil
- They serve as a store for carbohydrates for the tree
- They form a supporting structure for the tree

In addition they perform a gas exchange function as the tree respires.

A tree's roots are generally fairly shallow with 90% of all roots found in the upper 60cms of soil. The spread of roots in contrast is often underestimated with the roots often spreading way beyond the drip line of the tree. The idea of a tap root is also one which is not strictly accurate. The roots develop from seed

producing a tap root until the soil conditions become unsuitable and then the lateral roots develop usually at around two or three years old.

These lateral roots then develop and become the root system we all know. Usually a tree will produce between four and eleven roots which develop in girth near the stem and become the main supporting structure for the tree. These roots grow out from the tree and taper rapidly until at five metres or so they are only two to five centimetres in diameter.

Root distribution is not regular and does not conform to the same basic rules as branch development above ground. This is because root growth is opportunistic and only occurs where the roots can survive. Roots develop and multiply where the conditions are best but are easily deflected by pipes, rocks etc.

The greatest numbers of roots are found near the surface of the soil where the soil is loose and there is easy access to water, nutrients and oxygen. The number and size of roots decreases as the depth increases which is why roots are rarely found below one metre depth of soil. Often the conditions found just below the surface under the Tarmac suit trees roots well. Light is excluded, there is often a small air gap and moisture may also condense in this area.

4.1 *Soil Compaction*

Soil compaction is the major cause of death or decline of mature trees where efforts have been made to save them. It poses a very serious threat to good soil structure. Delicate soil pores are easily crushed, decreasing their capacity for water and air movement and hindering root growth. Wet soil is particularly vulnerable, because water lubricates soil particles and loosens binding agents. Small particles slip between the larger particles, filling the pore spaces. Loose soils will compact more than tight soils, and soils that have a broad range of particle sizes can be more severely compacted than more uniform soils.

Few soils can withstand traffic without becoming severely compacted. Compaction depends not only on the amount of pressure exerted, but also on the duration and frequency of exertion. For example, the heel of a shoe exerts force per unit of area equal to that of heavy equipment (although the turning, starting and stopping of heavy equipment increases the force). Pressure spreads with depth, so the compacting effects of pedestrians and vehicles usually occur to the top four inches (100mm) of the soil

4.2 *Damage*

The damage caused by roots to a Tarmac surface is usually in the form of lifting and cracking of the surface. This is caused by the development of the root system pressing directly against the Tarmac or stones etc. in the soil. Damage to the surface is not only caused by surface roots but by fast growing deep roots as deep as 0.4m.

The damage caused by roots can be exacerbated when an area of Tarmac has been repaired. Often the roots are chiselled away or pruned and the resulting callous growth forms a large knot of tissue which in

turn causes surface damage. When a root is pruned there is potential for it to develop a clump of shoots similar in formation to an old pollard point in the crown. This mass of additional shoots forms many lateral roots which can often cause surface damage.

Research has shown, Nicoll and Armstrong (1997) that large surface roots caused the most severe damage but deep roots undergoing secondary thickening also caused damage. The same research also showed that in general, cracks follow the underground path of roots but were less distinct for deep roots.

4.3 Prevention

The simplest and most obvious method is to avoid conflict in the first place by allowing more room for the trees or planting a tree which will not require much space. The location of the tree is also important. Where possible it should not be planted on the road side of the pavement. This will allow the roots easier access to soil and nutrients in non compacted soil i.e. gardens or open spaces in residential property.

Where trees are already in place a root barrier could be installed. The vertical style of barrier is proven to be less effective than a barrier which for example is laid at an angle under the grass and deflects the roots away from the surface (USDA Forest Service 1999).

4.4 Repair

A solution often adopted is to prune the roots and relay the surface of the path over the pruned roots. This is effective in the short term on larger trees provided the pruning is undertaken two to three metres away from the base to retain the structural roots which support the tree. Removal of a significant amount of these structural roots leaves the tree unstable and vulnerable to wind throw for example. This type of catastrophic failure can result in injury and damage to property. When root pruning takes place close to the stem it should be accompanied by pruning of the crown to reduce sail area. This pruning usually needs to be repeated on a short term cycle.

Bridging the damage or raising the level of the pavement is a method which is finding favour in Europe and the USA. Building a cavity and backfilling so the roots can expand into the void under the top surface is also being used in larger cities around the world.

5.0 Comments

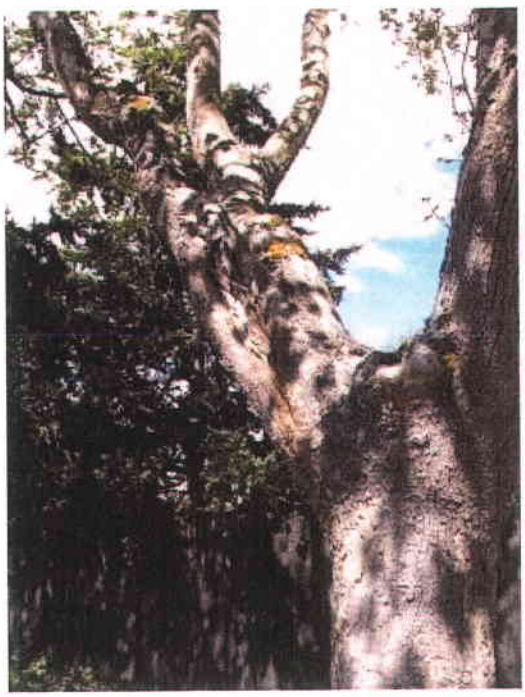
I estimate that the trees in Queen Street are approximately fifty years old. Comments made during the initial site visit suggest that the footpath is approximately twenty years old and is coming to the end of its expected life span.

As can be seen from the photographic record in the appendices several of the trees outside Victoria Park are poor specimens as they are suppressed by the larger trees in the park. It is unlikely that these trees will become well formed long lived specimens even if the park trees were removed.

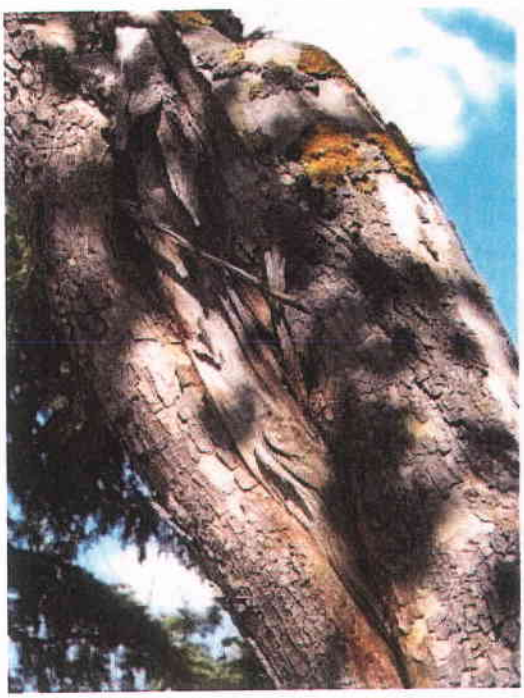
A

Frame A shows tree #7 and the stem damage.

B



C



Frames B and C above show views of the underside of one of the lateral branches of tree #8; this damage is typical of vehicle strike.

D

E

Frames D and E above show trees #36 and 37 respectively. They illustrate the compaction and erosion around the bases of some of the trees.

F

G

Frames F and G above show trees #19 and 22 respectively and illustrate two types of damage present in Queen Street. #19 has a series of cracks and raised Tarmac close to the tree; these were most likely caused by large lateral roots. Tree #22 shows cracks which are much smaller. Both areas of damage seem to be associated with civil engineering disturbance to the path.

H

Frame H to the left shows a long radial crack through the path from tree #16. As can be seen in the frame there has been some recent disturbance to the path.

I

The frame I to the left shows a series of cracks near tree #17 which run parallel with the road but don't seem directly related to the tree's root structure.

The Plane trees in Queen Street are old pollards which have been allowed to grow out and form a more natural canopy shape. Planes are good compartmentalisers and as such will tolerate this type of management.

J

The frame J to the left shows a view of tree #10 looking from the north west. It shows species typical form for a Plane which has been pollarded and then had the pollard points pruned to allow the crown to redevelop.

6.0 Conclusion

The trees in general showed average form and vigour with few structural faults. They provide a high level of amenity to both the immediate area and the town of Rangiora as a whole.

Based on the comments received during the survey many residents will be interested in the development of the street so public consultation will be valuable to ensure that residents have a chance to express their views. I believe that these trees will become more of an asset as they develop and they will form a "monumental" style avenue in the future. The two Planes planted in Victoria Park are examples of what they will become in 50 years or so. (See photograph K on page 15.) Trees the size of those in Victoria Park are likely to be too large as street trees in this situation so it is important that a phased removal and replacement policy is put in place to remove trees now to allow space for development of the remaining trees and to ensure that Queens Street retains its identity. A phased removal policy should remove an agreed percentage of trees in the street at an agreed rate e.g. 5% in phase 1; 5% in phase2, 5 years later etc. The objective is to retain the cover provided by the trees but to provide an irregular age class structure to the street. This will loose the more traditional avenue feel to the area but still retain trees which are large but not overpowering. There are generally three to five years between each phase of removal. The timing of the removal should be confirmed subject to the residents meeting.

Based on the ISA/CTLA and STEM valuations (see appendix 8.3) the trees are valued at between $633,529.58 STEM and $228,800.00 (Rounded to nearest $100.00) ISA / CTLA. The averaged tree value is $316,879.19 or $7,369.28 per tree.

There was evidence that many of the trees had recently been maintained to remove dead wood etc. This is reflected in the low number of trees requiring work. There is evidence of vehicle strike to the underside of the canopy on the road side on several trees.

Path damage appears to be associated with repair or installation work on the footpath, the majority of which is to be found on the south side of the street. This has most likely occurred as a result of soil disturbance and which has reduced the compaction of the sub-surface material making it more hospitable to the trees roots.

The main area of the damage caused by the roots is to be found on the south side of the street between Murray Street and Percival Street. The damage here is primarily radial cracking from the base of the trees. There is also evidence of cracking parallel to the road. There are several areas where the surface has been forced up and is now causing a trip hazard. This area of damage coincides with the most recent construction on the south side and the areas of civil engineering activity. There appears to be areas of patching and areas where new services have been laid.

K

Frame K to the left shows a view of the London Plane in Victoria Park. The tree is located in the south east corner of the park close to Percival Street.

The photograph was taken looking from the north west. It is likely that this tree is 50 years or so older than the trees in the street but is considerably larger due to the better growing conditions and the fact that the street trees have been regularly pruned.

7.0 Recommendations

- Repair the path outside number 11, 12, 13 and 17 as a matter of urgency. However it is essential, that during pavement repairs the removal of large structural roots that support the tree is prevented.

- Works should be supervised by a suitably qualified and experienced arborist as roading works of this nature can lead to tree failure.

- Keep root damage to a minimum to reduce the introduction of pathogens. Any root pruning should be carried out by a suitably qualified Arborist.

- Install root control barriers to restrict root development. Build ramps over the roots to avoid damage and introduce Amsterdam soil to the area around the tree roots

- Crown lift trees over roadside edge and crown lift the Plane in Victoria Park to favour tree number 36.

- Canvas the opinions of the residents regarding the future management of the trees in Queen Street

- Consider a phased felling and replacement scheme for the damaging street trees. This should include the removal of the trees under the canopies of the mature trees in Victoria Park and the removal of others in the street to allow the remaining trees to develop to the available root and canopy space e.g. numbers 07, 14, 19, 31, 32, and 34 during the first phase. Trees 15, 17, 21 30, 33, 35 and 40 could be removed during the second phase three years after the first round of removals. Replacement trees should be planted the winter immediately following the first round of removals. The timing and number of removals should follow the WDC Tree Policy and the results of the public meetings.

- Re-direct the path around the largest trees to increase the size of the planting pit e.g. numbers 05, 08, 09, 10, 11, 12, 15 and 16

When replacing trees:

- Where possible, use large planting areas to avoid pavement damage close to the tree.

- Improve soil preparation at depth to encourage growth of deeper roots e.g. Amsterdam Soil

PLEASE NOTE: Arboricultural Consultancy NZ Ltd has taken every effort to ensure that all statements in this report are accurate and correct at the time of inspection. However trees are a natural, dynamic living entity and as such, it is not possible to fully guarantee tree stability, growth characteristics etc. This report is supplied as guide to the management of the tree detailed only. All inspections have taken place from ground level and no samples have been taken. This is a report only and not a specification of work. All dimensions have been estimated.

8.0 Appendices

8.1 References

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Photographic record

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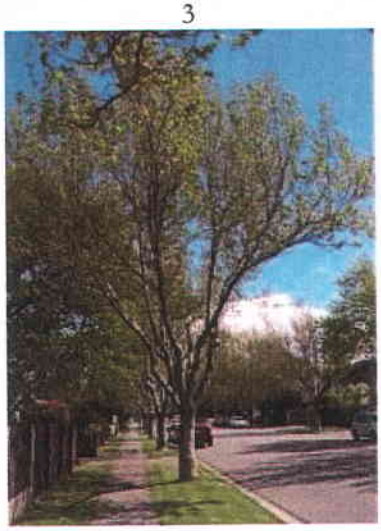

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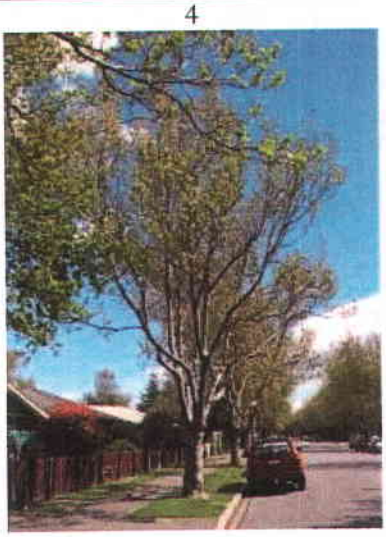

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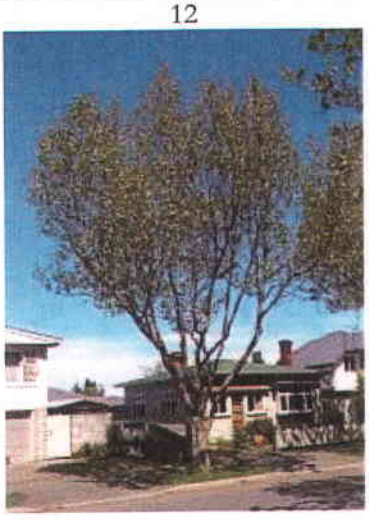

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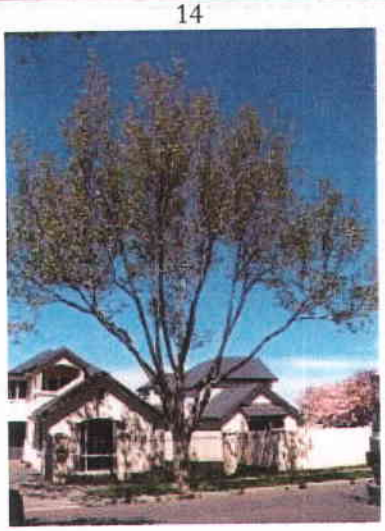

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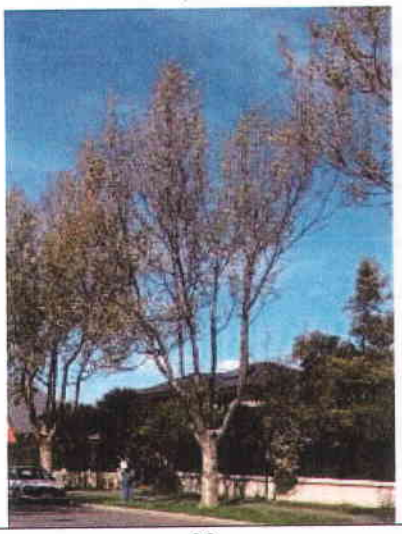

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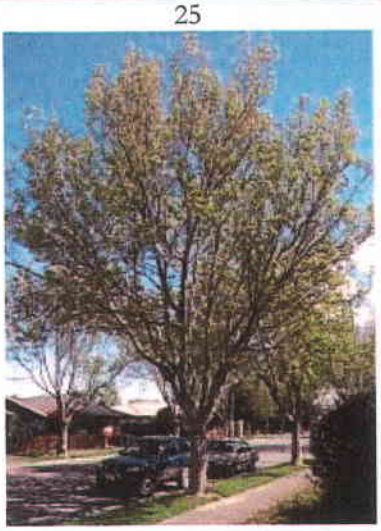

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Key to Tabled Data.

The dimensions are designed as a guide only and are not to be considered accurate measurements.

Asset ID:	This is a unique identifier allocated to each tree.
Location:	Brief description to aid finding the tree on site
Species:	Species identification based on information works by JT Salmon and Mitchell or agreed references.
Common Name:	Identification based on information works by JT Salmon and Mitchell or agreed references.
Height:	Total tree height to nearest metre (m)
Crown spread:	From stem to edge of canopy n/s/e/w (m)
Stem:	Stem diameter at 1.4m above ground (cm)
Age:	Inspectors best guess at the time of inspection
Date:	Date assessed
Size class:	Small less than 3m, medium 3 to 6m large greater than 6m

Age class:	Young recently planted trees not yet established, semi-mature young trees which are established on site, mature trees which are well established and at least 15 years old, over-mature trees are those showing evidence of decline due to age.
Comments:	Based on observations of the tree and surrounding area
SULE:	Safe useful life expectancy based on the inspector's assessment. L = 5 or less M = 5 to 25 H = 25 or more
Recommendations:	Work required to improve/make tree safe based on recommendations
Comments:	Comments regarding the landscape or amenity benefits of the tree
Root protection area:	Noted as m^2 and linear metres from the stem
Priority:	1 =Emergency-work within 8hrs 2= Urgent-within 48hrs 3= Priority-within one week H= High-within 3 months M= Medium-within one year L= Low-subject to budget
Landscape comments:	Tree comments based on the landscape or surroundings
Rating:	Based on BS 5837 trees in Relation to Construction. (2005) A = High quality and value - to be retained B = Moderate value – provide a useful contribution for several years C= Low value provide a useful contribution for a limited time i.e. less than 15 years R = trees whose value will be lost within 10 years.

QUEEN STREET TREE INSPECTION DATA

Date Inspected: 16th and 17th October 2007

Classifications: Size : L large, M medium, S small: Age: Y young, M mature, Over mature: Rating: A high value, B medium value, C low value, R remove: Life Expectancy: H High, M Medium, L Low

TREE IDENTIFICATION				TREE DATA						HEALTH & SAFETY			LANDSCAPE / PAVEMENT				RPA CALCS			
Asset ID number	Location	Species	Common Name	Tree Height (metres)	Crown Spread	Stem diameter (cm)	Date Inspected	Size class L,M,S	Age class Y, SM, M, O	Comments	Safe useful life expectancy L, M, H	Recommendations	Comments	Rating	STEM valuation	ISA/CTLA Assessment	Tree Diameter mm	RPA Sq Metres	Circle with radius Metres	Maximum Offset Open ground
1	Outside 11	Platanus x acerifolia	London Plane	17	19	43	16/11/07	L	M	The tree shows species typical form and vigour but is growing close to a drain. It suffers from restricted rooting room due to its location close to the road junction. There is evidence of vehicle strike to the undersides of the canopy on the road side.	H	No work currently required	There is little evidence of damage to the pavement.	B	$20,916.56	$6,400.00	430	83.6	5.2	1.0
2	Outside 11	Platanus x acerifolia	London Plane	18	15	46	16/11/07	L	M	The tree shows species typical form and vigour but with minor basal swelling and minor decay in some old pruning wounds. There is evidence of vehicle strike to the undersides of the canopy on the road side.	H	No work currently required	There is little evidence of damage to the pavement.	A	$15,651.56	$7,200.00	460	95.7	5.5	1.1
3	Outside 11	Platanus x acerifolia	London Plane	16	16	42	16/11/07	L	M	The tree shows species typical form and vigour with the crown touching the neighbours tree.	H	No work currently required	There is little evidence of damage to the pavement.	A	$14,774.06	$6,000.00		0.0	0.0	0.0
4	Outside 13	Platanus x acerifolia	London Plane	16	11	42	16/11/07	L	M	The tree shows species typical form and vigour with evidence of vehicle strike to the undersides of the canopy on the road side. A limb has been removed on the roadside giving the tree a one sided crown. The callous growth on the wound is developing well.	H	No work currently required	There is little evidence of damage to the pavement.	A	$15,651.56	$6,000.00	420	79.8	5.0	1.0
5	Outside 15	Platanus x acerifolia	London Plane	15	14	48	16/11/07	L	M	The tree has a thin open crown with evidence of decay in the main stem. There is restricted root space.	M	No work currently required	Minor cracking to drive.	C	$15,651.56	$7,700.00	480	104.2	5.8	1.2
6	Outside 15	Platanus x acerifolia	London Plane	16	9	44	16/11/07	L	M	The tree shows species typical form but low vigour with no significant defects apparent at the time of inspection.	H	No work currently required	There is little evidence of damage to the pavement.	C	$15,651.56	$6,100.00	440	87.6	5.3	1.1
7	Outside 17	Platanus x acerifolia	London Plane	10	6	18	16/11/07	S	SM	The tree shows poor form and major stem damage.	L	Remove and replace	There is little evidence of damage to the pavement.	R	$14,774.06	$1,200.00	180	14.7	2.2	0.4
8	Outside 21	Platanus x acerifolia	London Plane	13	14	28	16/11/07	L	M	The tree shows species typical form and vigour with evidence of minor basal swelling and vehicle strike to limbs over the road.	M	No work currently required	There is little evidence of damage to the pavement.	C	$13,896.56	$2,700.00	280	35.5	3.4	0.7
9	Outside 21	Platanus x acerifolia	London Plane	15	14	34	16/11/07	M	M	The tree shows species typical form and vigour with no significant defects apparent at the time of inspection.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.06	$3,600.00	340	52.3	4.1	0.8
10	Outside 25	Platanus x acerifolia	London Plane	16	13	36	16/11/07	M	M	The tree shows species typical form and vigour with no significant defects apparent at the time of inspection.	H	No work currently required	There is evidence of moderate cracking and tarmac lifting in the pavement	B	$14,774.06	$4,600.00	360	58.6	4.3	0.9
11	Outside 25	Platanus x acerifolia	London Plane	14	12	32	16/11/07	M	M	The tree shows species typical form and vigour with evidence of minor decay in main fork. There is also evidence of vehicle strike on the undersides of the limbs on the road side	H	No work currently required	There is minor cracking in the tarmac but bad lifting which is causing a trip hazard. The cracking runs along the line of the pavement as well in the direction of the spread of the roots.	B	$14,774.06	$3,800.00	320	46.3	3.8	0.8
12	Outside 25	Platanus x acerifolia	London Plane	16	11	36	16/11/07	M	M	The tree shows species typical form and vigour with evidence of minor decay in main fork. There is also evidence of vehicle strike on the undersides of the limbs on the road side	H	No work currently required	The cracking and lifting of the tarmac is bad in this area, with cracking round the mail box evident.	C	$14,774.06	$4,600.00	360	58.6	4.3	0.9
13	Outside 27	Platanus x acerifolia	London Plane	18	15	51	16/11/07	L	M	The tree shows species typical form and vigour. There is also evidence of vehicle strike on the undersides of the limbs on the road side	H	No work currently required	There is evidence of recent patching of the pavement near the tree and cracking and lifting of the tarmac.	C	$14,774.06	$8,000.00	510	117.7	6.1	1.2

QUEEN STREET TREE INSPECTION DATA

Date Inspected: 16th and 17th October 2007

Classifications: Size : L large, M medium, S small: Age: Y young, M mature, Over mature: Rating: A high value, B medium value, C low value, R remove: Life Expectancy: H High, M Medium, L Low

TREE IDENTIFICATION				TREE DATA						HEALTH & SAFETY			LANDSCAPE / PAVEMENT				RPA CALCS			
Asset ID number	Location	Species	Common Name	Tree Height (metres)	Crown Spread	Stem diameter (cm)	Date Inspected	Size class L,M,S	Age class Y, SM, M, O	Comments	Safe useful life expectancy L, M, H	Recommendations	Comments	Rating	STEM valuation	ISA/CTLA Assessment	Tree Diameter mm	RPA Sq Metres	Circle with radius Metres	Maximum Offset Open ground
14	Outside 29	Platanus x acerifolia	London Plane	17	20	47	16/11/07	L	M	The tree shows species typical form and vigour with evidence of minor decay in main fork. There is also evidence of vehicle strike on the undersides of the limbs on the road side	H	No work currently required	There is evidence of services in the tarmac and recent patching on the path	B	$15,651.56	$8,000.00	470	99.9	5.6	1.1
15	Outside 24 Murray Street, Queen Street frontage	Platanus x acerifolia	London Plane	16	17	40	16/11/07			The tree shows species typical form and vigour with evidence of minor decay in main fork. There is also evidence of vehicle strike on the undersides of the limbs on the road side	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.06	$5,500.00	400	72.4	4.8	1.0
16	Outside 33	Platanus x acerifolia	London Plane	16	14	38	16/11/07	M	M	This tree shows species typical form and vigour with no significant defects apparent at the time of inspection.	H	No work currently required	There is evidence of minor cracks in the tarmac and moderate pavement lifting. Evidence of services in	B	$14,774.56	$5,100.00	380	65.3	4.6	0.9
17	Outside 33	Platanus x acerifolia	London Plane	14	11	30	16/11/07	M	M	The tree shows species typical form and vigour with evidence of minor stem damage.	H	No work currently required	There is evidence of minor cracks in the tarmac and moderate pavement lifting.	B	$14,774.56	$3,500.00	300	40.7	3.6	0.7
18	Outside 35	Platanus x acerifolia	London Plane	15	14	38	16/11/07	L	M	The tree shows species typical form and vigour with evidence of vehicle strike to the undersides of the canopy on the road side.	H	No work currently required	Minor pavement cracking with the tarmac lifting over cracks. There area number of cracks running parallel to the road.	B	$14,774.56	$5,100.00	380	65.3	4.6	0.9
19	Outside 37	Platanus x acerifolia	London Plane	19	19	46	16/11/07	L	M	The tree shows species typical form and vigour but is growing close to the road edge and residents drive.	H	No work currently required	Minor pavement cracking with the tarmac lifting over cracks, near to services.	B	$14,774.56	$7,100.00	460	95.7	5.5	1.1
20	Outside 39	Platanus x acerifolia	London Plane	16	11	44	16/11/07	L	M	The tree shows species typical form and vigour but with minor basal damage.	H	No work currently required	Minor pavement cracking with the tarmac lifting over cracks	B	$14,774.56	$6,500.00	440	87.6	5.3	1.1
21	Outside Oakliegh	Platanus x acerifolia	London Plane	18	13	41	16/11/07	L	M	The tree shows species typical form and vigour with no significant defects apparent at the time of inspection.	H	No work currently required	There are a number of cracks in the pavement particularly round the fire hydrant.	B	$14,774.56	$5,900.00	410	76.0	4.9	1.0
22	Outside Oakliegh	Platanus x acerifolia	London Plane	18	13	41	16/11/07			The tree shows species typical form and vigour with no significant defects apparent at the time of inspection.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.56	$5,900.00	410	76.0	4.9	1.0
23	Outside Woolworths supermarket	Platanus x acerifolia	London Plane	17	17	45	16/11/07	L	M	The tree shows species typical form and vigour but with minor basal swelling.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.56	$6,900.00	450	91.6	5.4	1.1
24	Outside Woolworths supermarket	Platanus x acerifolia	London Plane	16	18	45	16/11/07	L	M	The tree shows species typical vigour but with minor basal swelling and poor form due to the removal of the central leader.	H	No work currently required	There is little evidence of damage to the pavement.	C	$14,774.56	$6,900.00	450	91.6	5.4	1.1
25	Outside Woolworths supermarket	Platanus x acerifolia	London Plane	17	17	44	16/11/07	L	M	The tree shows species typical form and vigour with no significant defects apparent at the time of inspection.	H	No work currently required	Evidence of minor pavement cracking	B	$14,774.56	$6,600.00	440	87.6	5.3	1.1
26	Opposite 13	Platanus x acerifolia	London Plane	13	12	34	16/11/07	M	M	The tree shows species typical form and vigour but with minor basal swelling.	H	No work currently required	Evidence of minor pavement cracking which starts on the building side of the pavement	B	$14,774.56	$4,200.00	340	52.3	4.1	0.8
27	Opposite 15	Platanus x acerifolia	London Plane	15	15	40	16/11/07	L	M	The tree shows species typical form and vigour but with minor basal swelling.	H	No work currently required	Evidence of minor pavement cracking	B	$14,774.56	$5,500.00	400	72.4	4.8	1.0
28	Opposite 17	Platanus x acerifolia	London Plane	16	18	42	16/11/07	L	M	The tree shows species typical form and vigour but with minor basal swelling. There is evidence of vehicle strike to the lower limbs on the roadside.	H	No work currently required	The edge of the pavement has been raised but no tarmac cracking apparent.	B	$14,774.56	$6,100.00	420	79.8	5.0	1.0
29	Opposite 18 check	Platanus x acerifolia	London Plane	16	15	46	16/11/07	L	M	The tree shows species typical vigour but poor form due to removal of central leader. There is evidence of minor basal swelling.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.56	$7,200.00	460	95.7	5.5	1.1
30	Outside 130 Percival Street	Platanus x acerifolia	London Plane	15	16	40	16/11/07	L	M	The tree shows species typical form and vigour but with a slight lean towards the road. There is evidence of vehicle strike on the under side of	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.56	$5,600.00	400	72.4	4.8	1.0

QUEEN STREET TREE INSPECTION DATA

Date Inspected: 16th and 17th October 2007

Classifications: Size : L large, M medium, S small: Age: Y young, M mature, Over mature: Rating: A high value, B medium value, C low value, R remove: Life Expectancy: H High, M Medium, L Low

TREE IDENTIFICATION				TREE DATA						HEALTH & SAFETY			LANDSCAPE / PAVEMENT				RPA CALCS			
Asset ID number	Location	Species	Common Name	Tree Height (metres)	Crown Spread	Stem diameter (cm)	Date Inspected	Size class L,M,S	Age class Y, SM, M, O	Comments	Safe useful life expectancy L, M, H	Recommendations	Comments	Rating	STEM valuation	ISA/CTLA Assessment	Tree Diameter mm	RPA Sq Metres	Circle with radius Metres	Maximum Offset Open ground
31	Opposite 25A Parkside	Platanus x acerifolia	London Plane	12	12	27	16/11/07	M	M	Species typical vigour but poor form as the tree is suppressed by a Plane in Victoria Park.	M	Remove	There is evidence of minor pavement cracking. The tree is one sided and suppressed by the park tree.	R	$13,896.56	$1,900.00	270	33.0	3.2	0.6
32	Opposite 25C Parkside	Platanus x acerifolia	London Plane	16	15	35	16/11/07	M	M	The tree shows species typical form and vigour but with a slight lean towards the road. The canopy is slightly one sided due to the Totara in Victoria Park	H	No work currently required	There is little evidence of damage to the pavement.	A	$15,651.56	$5,400.00	350	55.4	4.2	0.8
33	Opposite 25 check	Platanus x acerifolia	London Plane	15	10	27	16/11/07	M	M	Species typical vigour but poor form as the tree is suppressed by a Cedar in Victoria Park. There is evidence of compaction and erosion around the base of the tree.	M	Removal	There is evidence of minor pavement cracking. The tree is one sided and suppressed by the park tree.	R	$13,896.56	$1,900.00	270	33.0	3.2	0.6
34	Opposite 27	Platanus x acerifolia	London Plane	14	13	27	16/11/07	M	M	Species typical vigour but poor form as the tree is suppressed by an Oak in Victoria Park. There is evidence of compaction and erosion around the base of the tree.	M	Removal	The tree is one sided and suppressed by the park tree.	R	$13,896.56	$2,300.00	270	33.0	3.2	0.6
35	Opposite 29	Platanus x acerifolia	London Plane	15	13	29	16/11/07	M	M	Species typical vigour but poor form as the tree is suppressed by a Poplar in Victoria Park. There is evidence of compaction and erosion around the base of the tree.	M	Removal	There is evidence of major pavement cracking most likely due to Poplar in Victoria Park	R	$13,896.56	$3,300.00	290	38.0	3.5	0.7
36	Opposite 24 Murray Street	Platanus x acerifolia	London Plane	12	10	24	16/11/07	M	M	Species typical vigour but poor form as the tree is suppressed by various trees in Victoria Park. There is evidence of compaction and erosion around the base of the tree.	M	Removal	The tree is one sided and suppressed by the park tree.	R	$13,896.56	$2,000.00	240	26.1	2.9	0.6
37	Outside 36	Platanus x acerifolia	London Plane	17	13	39	16/11/07	L	M	The tree shows species typical form and vigour with some minor branch damage over the drive to #36. The rooting area is restricted due to some concrete in berm.	H	No work currently required	The pavement is showing evidence of cracking due to the roots from the residents tree.	B	$14,774.06	$5,300.00	390	68.8	4.7	0.9
38	Outside 36	Platanus x acerifolia	London Plane	18	15	44	16/11/07	L	M	The tree shows species typical form and vigour and is growing close to the residents tree. There is evidence of minor compaction on the berm.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.06	$6,600.00	440	87.6	5.3	1.1
39	Outside 38	Platanus x acerifolia	London Plane	18	18	50	16/11/07	L	M	The tree shows species typical form and vigour but there is some decay in the old pollard points.	M	No work currently required	There is evidence of pavement cracking which may be due to the placement of the drain. There is evidence of a recent patch on the pavement.	R	$13,896.56	$6,600.00	500	113.1	6.0	1.2
40	Outside 40	Platanus x acerifolia	London Plane	15	11	33	16/11/07	M	M	The tree shows species typical form and vigour. There is evidence of erosion and compaction around the base of the tree.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.06	$4,000.00	330	49.3	4.0	0.8
41	Opposite 41	Platanus x acerifolia	London Plane	18	19	45	16/11/07	L	M	The tree shows species typical form and vigour. There is evidence of erosion and compaction around the base of the tree.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.06	$6,700.00	450	91.6	5.4	1.1
42	Opposite Oakliegh	Platanus x acerifolia	London Plane	18	19	45	16/11/07	L	M	The tree shows species typical form and vigour . This area of pavement has recently been patched.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.06	$6,700.00	450	91.6	5.4	1.1
43	Junction of Queen Street and King Street	Platanus x acerifolia	London Plane	18	14	44	16/11/07	L	M	The tree shows species typical form and vigour. There is evidence of erosion and compaction around the base of the tree.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.06	$6,600.00	440	87.6	5.3	1.1
													Total		$640,557.08	$228,800.00	0	0.0	0.0	0.0

RPA Calculation

For a single stem the root protection area is 12 times the diameter of the stem measured at 1.5m above ground i.e.

RPA (m^2) = (stem diameter (mm)@1.4 x 12)^2 / 1000 X 3.142

For a tree with more than one stem arising below 1.5m above ground.

RPA (m^2) = (basal diameter (mm) [measured immediately above root flare] x 10)^2 / 1000 X 3.142

The area calculated is the minimum area around each tree which should be left undisturbed around each retained tree. Definitions based on BS: 5837 2005. *Trees in Relation to Construction*

Amsterdam Tree Soil

Amsterdam soil is a compactable mix which is made up as required from locally sourced materials. Amsterdam soil allows a wider overlap between pavement and tree the planting pit in built up areas as it is a compactable substrate which still allows the tree roots to respire by creating air spaces in the soil.

This is a soil mix developed in Amsterdam in the 1970s and is a mixture of sand and organic matter (4-5% by weight) and clay (2-4%). The sand is medium coarse free from salts with a median size of 220µm with a relatively uniform distribution of size particles as specified by a D60/D10 ratio of >2.5 giving a low content of fine particles. Organic matter content must not exceed 5% to prevent excessive settling after compaction.

The components are then blended in a heavy duty mixer and installed to a depth of no greater than 1m and compacted. The mix should be compacted to 1.5 – 2.0 MPa.

London Plane; Wikipedia

London Plane seed ball

Scientific classification.

Kingdom:	Plantae
Division:	Magnoliophyta
Class:	Magnoliopsida
Order:	Proteales
Family:	Platanaceae
Genus:	Platanus
Species:	Plantnus x acerifolia
Binomial name:	Platanus x acerifolia (Muenchh)

The **London Plane** or **Hybrid Plane** (***Platanus × hispanica***, synonym *Platanus* × *acerifolia*) is a tree in the genus *Platanus*. It is usually thought to be a hybrid of the Oriental Plane *P. orientalis* with the American Plane (American sycamore) *P. occidentalis*. Some authorities think that it may be a cultivar of *P. orientalis*, but there is little evidence for this.

Description

London Plane in NMSU

It is a large deciduous tree growing to 20-35 m (exceptionally over 40 m) tall, with a trunk up to 3 m or more in diameter. The bark is usually pale grey-green, smooth and exfoliating, or buff-brown and not exfoliating. The leaves are thick and stiff-textured, broad, palmately lobed, superficially maple-like, the leaf

blade 10-20 cm long and 12-25 cm broad, with a petiole 3-10 cm long. The young leaves in spring are coated with minute, fine, stiff hairs at first, but these wear off and by late summer the leaves are hairless or nearly so. The flowers are borne in one to three (most often two) dense spherical inflorescences on a pendulous stem, with male and female flowers on separate stems. The fruit matures in about 6 months, to 2-3 cm diameter, and comprises a dense spherical cluster of achenes with numerous stiff hairs which aid wind dispersal; the cluster breaks up slowly over the winter to release the numerous 2-3 mm seeds.

Origin

It was first recorded as occurring in Spain in the 17th century, where the Oriental Plane and the American Plane had been planted in proximity to one another.

Scan of London Plane leaf in northern Florida

The leaf and flower characteristics are intermediate between the two parent species, the leaf being more deeply lobed than *P. occidentalis* but less so than *P. orientalis*, and the seed balls typically two per stem (one in *P. occidentalis*, 3-6 in *P. orientalis*). The hybrid is fertile, and seedlings are occasionally found near mature trees.

Controlled reciprocal pollinations between Platanus occidentalis and P. orientalis resulted in good yields of germinable seed and true hybrid seedlings. Crosses of both species, as females, with P. racemosa and P. wrightii produced extremely low yields of germinable seed, but true hybrids were obtained from all interspecific combinations. Apomixis (asexual reproduction from non-fertilized seeds) appeared common in P. orientalis [1].

In 1968 and 1970, Frank S. Santamour, Jr., recreated the P. orientalis, P. occidentalis cross using a P. orientalis of Turkish origin with American sycamores (P. occidentalis). The offspring were evaluated following several years of exposure to anthracnose infection. Two selections 'Columbia' and 'Liberty' were released in August, 1984. [1 & 4].

Usage

London Plane (*Platanus* × *hispanica*)

It is very tolerant of atmospheric pollution and root compaction, and for this reason it is a popular urban roadside tree. It is now extensively cultivated in most temperate latitudes as an ornamental and parkland tree, and is a commonly planted tree in cities throughout the temperate regions of the world, not just London but Buenos Aires, New York City, Paris, Madrid, Melbourne, Shanghai and many others. It has a greater degree of winter cold tolerance than the Oriental Plane, and is less susceptible to anthracnose disease than the American Plane. The seeds are used as a food source by some finches and squirrels.

A finch eating London Plane seeds in Seattle

The tree is fairly wind-resistant. However, it has a number of problems in urban use, most notably the short, stiff hairs shed by the young leaves and the dispersing seeds; these are an irritant if breathed in, and can exacerbate breathing difficulties for people with asthma. The large leaves can create a disposal problem in cities. These leaves are tough and sometimes can take more than one year to break down if they remain whole.

The leaf of the London Plane is the symbol of the New York City Department of Parks and Recreation,, and is prominently featured on signs and buildings in public parks across the city. Ironically the tree is today on the NYC Parks Department's list of restricted use trees for street tree planting.

London Planes are often pruned by a technique called pollarding. A pollarded tree has a drastically different appearance than an un-pruned tree, being much shorter with stunted, club-like branches. Although pollarding requires frequent maintenance (the trees must usually be re-pruned every year), it creates a distinctive shape that is often sought after in plazas, main streets, and other urban areas.

Queens Street		Tree 1			
ISA Tree valuation calculation (diam less than 75cms)					
	Species rating	70.00%			
	Condition	70.00%			
	Location	75.00%			
	Tree diameter	43.00			
Replacement cost: Largest transplantable tree	$1,350.00				
Basic price: of replacement tree					
A wholesale, retail or installed cost	$130.00				
B replacement tree Trunk area (TA_R)	12.34				
Divide **cost** by **TA_R**	10.53				
Tree diameter	43.00				
TA_A	1451.465				
B replacement tree Trunk area (TA_R)	12.34				
Subtract TA_R from TA_A	1439.125				
Multiply by **Basic price**	15290.96				
Multiply by **Species rating**	10703.67				
Add **Replacement cost**	12053.67				
Multiply by **Condition**	8437.571				
Multiply by **Location**	6328.178				
APPRAISED LOCATION	$6,400.00				

STEM Assessment - Queens Street

Tree Ref Number: 1

Tree Common Name:
London Plane

Species:
Platanus x acerifolia

Location:
Queen St Rangiora

Additional Comments:

Condition	Points
form	9
occurrence	15
vigour vitality	15
function	9
age	21
Condition total	69
Amenity	
stature	15
visibility	3
proximity	21
role	15
climate	3
Amenity total	57
Notability	
stature feature	
stature form	
historic	
age	
association	
commemoration	
remnant	
relict	
scientific source	
scientific rarity	
scientific endangered	
amenity total	0
Total points	126
original tree age	60
new tree age	5
Age difference	55
tree cost	$130.00
points	126
Unit tree cost	$16,380.00
site prep	0
transport	0
planting	150
Planting unit cost	$150.00
maintenance per yr	37.5
age difference	55
Maintenance cost	$2,062.50
Sub total	$18,592.50
gst	$2,324.06
Total	$20,916.56

Our Reference: RES-10 / 070605017026
070522015293

5 June 2007

[redacted]

Dear Mr Avent

Thank you for your letter of 20 May 2007 regarding the shading of properties on Queen Street, Rangiora.

I am advised that the recent fine, clear winter days have provided a good opportunity to have a close look at the street trees along Queen Street. The weather has been particularly good to see any shading that may be occurring on the properties along the southern side of the street, at different times of the day.

Now that the majority of leaves have fallen from the street trees, the structure of the trees can be clearly seen. The form of the trees consists of predominately long branches with fewer side branches than if the trees had been left to grow unpruned, such as in a park. After discussions with our arborists, their advice is the trees have been over-pruned, which has resulted in the trees producing the long straightish branches.

The arborists further advise that if they were to cut the long branches the trees would naturally produce an abundance of new shoots. These new shoots would form a bushy crown on each branch that would reduce the amount of light shining through the tree. The extra growth would also produce an abundance of leaves that would fall to the ground next autumn. For these reasons it is not advisable to prune the long branches.

In your letter you have raised the issue of shading of the properties along the southern side of Queen Street. Once again, now that the leaves have fallen and with the fine clear days, it is a lot easier to see what affect the trees may be causing through shade on the properties. The properties on the southern side of the street that are receiving the greatest amount of shade, are not being shaded by the street trees but by the ever-green trees growing in the properties on the northern side of the street.

As the angle of the sun is a lot lower these months, the sun is being blocked by the ever-green trees growing in the properties on the northern side of Queen Street. In some instances the properties on the southern side of the street are being shaded by the ever-green trees growing in Victoria Park or even by the tall ever-green trees growing in their own front yards.

There is a minimal amount of shade being produced by the street trees, mainly due to the long narrow branches of the trees. The street trees are producing a dapple light effect, rather than dense shading that is being produced by the neighbouring ever-green trees.

The street trees do produce a lot of leaves during the autumn and we have arranged for additional leaf clearing operations during this period. The inconvenience caused by the leaves for this short period of time is out-weighed by the amenity and aesthetic benefits to the area and town as a whole. There are very few streets in Rangiora that have such majestic street trees that are in good condition. Queen Street with its avenue of tall trees is considered by many residents to be one of the best streets in Rangiora.

I appreciate your concerns as the shading, and leaf drops. As my letter indicates, there is no easy solution.

Yours sincerely

Jim Gerard, QSO
MAYOR

Iain Mackinnon *Dip Arb. Dip For*
Cell Phone 021 223 4403

E-mail:
arconz@farmside.co.nz

Tree Report, Queen Street, Rangiora.

For: Waimakariri District Council
Date: May 2010

Client Address:	Parks and Recreation, Waimakariri District Council Private Bag 1005 Rangiora 7440
Site Address:	Queen Street Rangiora
Attention:	Russel Wedge, Parks and Recreation Manager
Dated:	May 2010
Prepared for:	Treetech Specialist Treecare Ltd
Prepared by:	Arboricultural Consultancy NZ Ltd
Arborist:	I. MacKinnon. Dip Arb: Dip For
Cell phone:	021 223 4403
Status	Final
Our Ref:	mackinnon/ARCONZ/01002/2010

Contents

1.0 Project brief

The following tree report has been commissioned by Tony Pye, Operations Manager, Treetech Specialist Treecare Ltd on behalf of Waimakariri District Council.

Prepare answers to the questions posed by Russel Wedge, Parks and Recreation Manager, Waimakariri DC, in an e-mail dated 14 May 2010.

2.0 Recommendations

The trees should be pruned to give at least 2m clearance to the overhead street lights and to the resident's houses. This work should be undertaken as soon as practicable.

2.1 Option 1 as per the existing Treetech tree maintenance contract

The trees should have the crowns pruned in such a way as to reduce the spread of the branches but not to encourage vigorous re-growth. The trees should then be kept at this width and shape by periodic pruning.

This would require a regular pruning cycle of 3 to 5 years. The trees received their last full maintenance prune in 2007 and are due for the next prune during the winter of 2010.

A phased felling and replacement programme should be put in place. For example, trees 17 and 27 (both in poor condition) could be removed and replaced, in the winter of 2010. The replacement trees should be large nursery stock.

2.2 Option 2

Crown reduction to lower the height of the trees, thin the crown as well as reducing the width of the trees. A regular maintenance programme should then be put in place to keep the trees in this form.

The trees could be crown reduced to a maximum of 30%. This process would take place over several years and would reduce the height and spread of the crown as well as thinning the crown. The thinning process would be less of a shock to the tree's metabolism and less likely to kill the trees.

The crown reduction maintenance cycle runs every other year for the first 4 years then every 3 to 5 years after this to keep the trees to the desired size and shape.

This option would be time consuming and expensive and lock WDC into an ongoing pruning regime for the life of the trees. A phased felling and replacement programme should be put in place.

2.3 Option 3

Pollard the mature Planes in Queen Street. This is the least favoured option as it will provide the least satisfactory results and in addition is the most costly and labour intensive option.

As a general rule, mature Plane trees do not take well to pollarding and the risk of tree death is high.

A mature tree has achieved a balance between root and shoot and the act of pollarding will upset this balance. One of the main issues is that the roots will still continue to produce a growth stimulant but the growth retardant is produced in the tips of the growing shoots. The result of this imbalance is a very rapid growth rate which produces long growth and large leaves for several years until the tree is once again in balance. However, pollarding will have to take place once per season due to the rapid growth of the new shoots which means that the tree never fully regains its original balance.

3.0 Briefly (really as background info) health of the trees

A walk over inspection was conducted on the morning of 24th May 2010 and it was concluded that the general health and condition of the trees is species typical, bearing in mind their location i.e. they are suffering from typical stresses imposed by being located in a street situation, for example reduced rooting space and a lack of nutrients in the poor street soil.

However, one tree on the north side has been damaged by a recent building fire. There is one tree on the south side which is in very poor condition and almost dead.

3.1 Comment

The trees in general showed average form and vigour with few structural faults. They provide a high level of amenity to both the immediate area and the town of Rangiora as a whole.

Based on the comments received during the survey many residents will be interested in the development of the street so public consultation will be valuable to ensure that residents have a chance to express their views. I believe that these trees will become more of an asset as they develop and they will form a "monumental" style avenue in the future. The two Planes planted in Victoria Park are examples of what they will become in 50 years or so. (See photograph 1 on page 7.) Trees the size of those in Victoria Park are likely to be too large as street trees in this situation so it is important that a phased removal and replacement policy is put in place to remove trees now to allow space for development of the remaining trees and to ensure that Queens Street retains its identity. A phased removal policy should remove an agreed percentage of trees in the street at an agreed rate e.g. 5% in phase 1; 5% in phase 2, 5 years later etc. The objective is to retain the cover provided by the trees but to provide an irregular age class structure to the street. This will loose the more traditional avenue feel to the area but still retain trees which are large but not overpowering. There are generally three to five years between each phase of removal.

There was evidence that many of the trees had recently been maintained to remove dead wood etc (winter 2007). This is reflected in the low number of trees requiring work. There is evidence of vehicle strike to the underside of the canopy on the road side on several trees. The trees are due for their next full maintenance prune this winter, 2010.

Path damage appears to be associated with repair or installation work on the footpath, the majority of which is to be found on the south side of the street. This has most likely occurred as a result of soil disturbance which has reduced the compaction of the sub-surface material making it more hospitable to the trees roots.

The main area of the damage caused by the roots is to be found on the south side of the street between Murray Street and Percival Street. The damage here is primarily radial cracking from the base of the trees. There is also evidence of cracking parallel to the road. There are several areas where the surface has been forced up and is now causing a trip hazard. This area of damage coincides with the most recent construction on the south side and the areas of

civil engineering activity. There appears to be areas of patching and areas where new services have been laid.

1 	Frame 1 to the left shows a view of the London Plane in Victoria Park. The tree is located in the south east corner of the park close to Percival Street. The photograph was taken looking from the north west. It is likely that this tree is 50 years or so older than the trees in the street but is considerably larger due to the better growing conditions and the fact that the street trees have been regularly pruned.

4.0 Why we don't pollard the trees, also include a picture of what a pollarded tree looks like and what happens to the new growth when pollarded.

4.1 Definition

A tree pollard could be defined as a tree which has had its crown structure removed to leave only a trunk and perhaps a few stubs with the aim to generate new fresh shoots and ultimately a new branch structure.

4.2 Description

Pollarding along with coppicing is a traditional form of tree management to enable the owner to harvest foliage or branches on a regular cycle. These rural trees are cut on a cycle of between 10 and 40 years, depending on the size of produce required. The trees were cut high off the ground to prevent browsing by stock. Pollards were often grown on field or property boundaries as boundary markers or to help travellers find their way. Pollards were very effective as way markers due to their often strange and un-natural appearance.

4.3 Problems

Decay is the main problem associated with any type of pruning: this is particularly true with pollarding.

As soon as the branch is cut, the exposed end becomes dysfunctional and dries out as the tree has no further use for this area of tissue. As the cut surface dries out, it is colonised by a variety of pathogens and the cycle of decay begins. At the same time, a number of dormant buds are activated and the cambium differentiates to develop callous but also secondary shoots. As a result, branches begin to develop at this point. The shoots develop around the edge of the cut and are poorly attached. These shoots grow rapidly and produce large leaves as the tree needs the additional energy to replace the lost leaf cover and to repair the wound caused by the pruning.

One of the basic rules of pruning states that "removal of larger amounts of wood causes very vigorous re-growth".

These buds develop into branches with poor attachments and are prone to failure due to decay in the cut area of the branch. These newly developed branches grow and surround the decayed area. This often leads to the decay breaking out of side of the stem which leads to an open cavity. (See photograph on page 5.)

As a result of this, urban or street tree pollards require regular and expensive maintenance, with pruning being carried out every 1 to 5 years by a skilled and experienced crew. The pruning cycle would vary with a number of factors, for example, it is poor practice to prune pollards during or following a drought year.

2	3
	
The photographs above show a Plane Tree in Christchurch. Frame 2 is a general view of the tree showing the pruning points about 2.5m above ground. Frame 3 is a closer view of the "knuckles" and shows an area of decay which has broken through the side of the branch.	

4 	Frame 4 shows a view of a recently pollarded Lime in the UK. The amount of growth suggests that this is the second winter since pollarding. It is likely that this tree was planted specifically to be pollarded and has been maintained as a pollard this since planting. Photograph taken from : http://www.passionfortrees.co.uk/source/jpg_s/pollard_1.jpg

4.4 Why is pollarding not generally used in modern arboriculture?

Pollarding mature trees is generally considered to produce an unsightly tree.

New pollarding on large mature trees has the same effect as topping, which is damaging to trees.

The regular maintenance is costly and time consuming and generally produces a tree of poor form.

The new cuts will produce multiple shoots which in turn produce a large number of larger than normal leaves which can be a nuisance in an urban situation. (This leaf and shoot

production is due to reduced hormone production in the shoots but normal hormone production in the roots. The tree's natural system is out of balance.)

The new shoots are poorly attached and are liable to failure.

Generally, mature Plane trees do not take pollarding well.

5 	Frame 5 shows a mature tree pollarded for the first time. Note the intermodal pruning cuts. Photograph taken from: http://phynbarr.files.wordpress.com/2009/03/pollarded_tree.jpg

5.0 If the trees could be reduced in height and if so by how much, or if this would affect the growth /health of the trees if this did occur? Could or should they be pruned every year and what would happen to the health growth of the trees if this did occur

The trees could be reduced by as much as 30%. This reduction in height should take place in a series of pruning operations to reduce the chances of any of the trees dying. Incremental crown reduction would not seriously compromise the trees health and vitality.

Subject to careful professional pruning, the trees should not require yearly work to reduce the height of the crown. It is important that the trees are pruned in such a way as to create a balanced and compact crown which will lend itself to pruning over the following seasons to achieve the goals agreed at the outset.

Regular yearly pruning should not be necessary if the trees are professionally pruned from the start. Yearly pruning would be time consuming, expensive and not be in the trees best interest.

6.0 If the width of the trees could be reduced – some residents say the branches almost touch the houses. If the trees could be pruned away from the street lights, residents say the street very is dark.

Lateral crown reduction is possible and recommended to allow greater light into adjacent homes. The crowns should give 2m clearance to any street light. The same caveats apply to lateral reduction as to lowering the crown.

7.0 Could a pruning /maintenance programme be put in place for the trees and could you discuss what work this would cover and how often.

After the agreed size and shape has been achieved, a maintenance programme could easily be developed to ensure the trees do not exceed the agreed distances. It is likely the trees will require pruning every third to fifth year.

8.0 Definitions

8.1.1 Pruning General

- Each tree shall be considered individually and the work specified is to be interpreted in relation to the shape, size, species, condition and previous management of each tree. All operations carried out will leave each tree with a pleasing and well-balanced appearance, compatible with safety.
- All pruning cuts will be made with due regard to the branch bark ridge and branch collar, all cuts will be made to leave them intact whilst not leaving a stub.
- The final cut wound surface shall be smooth and sound, the cut being executed in one continuous operation. Surrounding tissue should not be damaged during any part of the operation.
- Branches up to 50 mm in diameter shall not be pruned with a chain saw. Handsaws, pole saws/pruners, secateurs and long handled pruners shall be used for this purpose.
- Climbing irons shall not be used for any operation except felling or at the discretion of the Employer.

8.1.2 Crown Reduction (CR)

- The operation shall be expressed as a percentage reduction of the trees crown size.
- The complete outline dimensions of the crown shall be reduced from the tip of the leader and other limbs and branches to the main stem by pruning growth to an acceptable branch, twig or bud to retain a flowing branch line.
- Crown reduction shall retain an overall appearance typical for the species or variety of tree. Crown reduction is a matter of judicious pruning and should not be construed as topping or lopping.

8.1.3 Crown thinning (CT)

- Removal of a specified percentage of the branches throughout the crown to produce an even canopy of foliage on a well structured, balanced and sound skeleton of major and secondary limbs, typical of the tree species.

- The thinning operation will include the removal of small, live secondary growth, whole branches, weak, damaged, dead, crossing and duplicated limbs, back to the main branch, limb or trunk to give a natural appearance.

- Where trees have been previously pollarded or crown reduced, the main branch network shall be selectively thinned so as to give a balanced and natural appearance to the tree as far as possible.

WAIMAKARIRI DISTRICT COUNCIL

REPORT

FILE NO:	WAB-02-05, RES-01-10 / 100527017961
REPORT TO:	Rangiora Ward Advisory Board
DATE OF MEETING:	9 June 2010
FROM:	Russel Wedge, Parks & Recreation Manager
SUBJECT:	Maintenance of Plane Trees on Queen Street, Rangiora

SIGNED BY: (for Reports to Council or Committees)	Department Manager	Chief Executive

1 SUMMARY

1.1 The purpose of this report is to seek the support of the Rangiora Ward Advisory Board to continue with the scheduled maintenance of the Plane trees on Queen Street.

1.2 At the Rangiora Ward Advisory Board meeting of 12 May 2010, the Board requested the Parks and Recreation staff to investigate the possibility of pruning the Plane trees on Queen Street after several residents complained of the height, width and density of the foliage on the trees.

1.3 The Plane trees in Queen Street were extensively pruned in 2007 and are scheduled for another extensive maintenance prune in the winter 2010. Some of the Plane trees have received additional maintenance pruning since 2007 due to Service Requests. All the street trees in the main towns are on a scheduled maintenance programme and the Plane trees in Queen Street should be pruned every 3 – 5 years.

Attachments:

i. Treetech Ltd Tree Report, Queen Street, Rangiora, No. 100527017912

2 RECOMMENDATION

THAT the Rangiora Ward Advisory Board:

(a) **Receives** report Nº 100527017961

(b) **Supports** the scheduled maintenance prune (Option 1) for the Plane trees on Queen Street as proposed in the Treetech Ltd Tree Report, Queen Street (100527017912).

(c) **Notes** the Plane trees on Queen Street are due for their schedule maintenance prune this winter, 2010.

(d) **Notes** any tree branches will be cleared away from the street lights or residential properties during the maintenance prune.

(e) **Notes** a stage replacement programme for the Plane trees will be implemented with tree No. 17 and 27 removed, and replaced 2010 with the same variety of Plane tree.

3 ISSUES AND OPTIONS

3.1 The Plane trees growing as street trees on Queen Street are approximately 50 years old and form a mature canopy along the street. As the trees have matured they have created some issues for

the residents along the street, such as shading of some residential properties and leaf fall in the autumn.

3.2 At the last Ward Advisory Board meeting some residents presented a deputation to the Board, asking if the trees could be reduced in height and width as they were causing excessive shading during this time of year and the number of leaves falling into their properties was problematic to them. The residents also expressed their concerns that the trees were blocking the street lights causing shading to the footpath and some branches were very close to residential properties. The Board requested the Parks and Recreation Staff to prepare a report for the next Board meeting on the trees issues raised.

3.3 The Plane trees received an extensive maintenance prune in 2007 and are scheduled to be pruned again this winter in 2010. Treetech Ltd who have the tree maintenance contract with the Council have a rolling pruning programme for all the street trees in the main towns. The Plane trees require a regular prune every 3 – 5 years depending upon how extensive the previous prune has been. The maintenance prune would reduce the height of some branches and clear branches away from street lights, residential properties and lift any branches that may be too low causing problems to trucks.

3.4 The maintenance prune undertaken in 2007 appears to have alleviated the residents concerns for shading of properties as the Council did not receive any complaints after the trees were pruned. Additional leaf street sweeping has also been implemented in the last couple of years to assist with the removal of the leaves falling in the autumn.

3.5 Treetech Ltd has provided 3 Options in their report for maintaining the Plane trees in Queen Street. A brief summary of the options are:

a. Option 1 is to continue maintaining the trees on a 3 – 5 year schedule, which reduces the spread and some height reduction of the trees without encouraging vigorous re-growth. Branches growing around the street lights, and close to residential properties would be removed.

b. Option 2 is to undertake a more intensive pruning programme for the trees by reducing the height of all the branches and width of the tree as well as thinning the crown growth. This option is very time consuming and expensive as the arborists will need to spend considerable time on each tree and continue the intensive pruning for every second year over a 4 year period.

c. Option 3 is to pollard the mature Plane trees. The Parks and Recreation staff do not consider this is an option as it affects the health of the tree, makes the tree susceptible to disease and rot, and creates an imbalance of very rapid growth, producing larger leaves than normal. In the 1980s the trees in Queen Street used to be pollarded, as this was the standard practice at the time.

3.5 The Parks and Recreation staff recommend Option 1 as the trees are due for their scheduled maintenance prune this winter (2010) and this will elevate the concerns raised by the residents. The staff can request the tree contractors monitor the growth of the trees in the future to ensure the scheduled maintenance prune occurs every 3 rather than 5 years, if required.

3.6 The Treetech Ltd report also recommends that a stage removal and replacement of the Plane trees in Queen Street is implemented. The report recommends that 2 trees are removed every 5 years and replanted with a large Plane tree specimen. The gradual replacement of the trees would ensure the iconic look of the street would not be changed. The mature trees are growing in a very soil restricted environment which is affecting the longevity of the trees. A managed replacement programme for the trees ensures the character of the street is not compromised by having to remove the majority of the trees all at once. Two trees (tree No.s 17 & 27) will be removed this year 2010 as they are both in poor condition. They will be replaced with large nursery Plane trees.

3.7 The Management Team/CEO has reviewed this report and supports the recommendations.

(b) COMMUNITY VIEWS

a. Requests from the community for projects that fit within the above criteria have been included in the project table for discussion at the Ward Advisory Board meeting.

(c) FINANCIAL IMPLICATIONS AND RISKS

a. There are funds within the operational Parks and Recreation budget (2010/11) for the scheduled maintenance prune of the Plane trees on Queen Street, as stated in Option 1. This will also include the removal and replanting of two mature Plane trees.

b. To proceed with Option 2, the more intensive pruning of the Plane trees, additional operational budget would be required as there are insufficient funds in either this financial year (2009/10) or next financial year (2010/11) to implement this option. To implement Option 2 will require approximately 3 – 4 times the resources (skilled arborists, equipment and time) than the scheduled maintenance prune in Option 1.

(d) CONTEXT

a. Policy

This matter is not a matter of significance in terms of the Council's Significance Policy.

b. Legislation – N/A.

(e) COMMUNITY OUTCOMES

a. The provision of parks and reserves and sports grounds contributes to a range of community outcomes, including that:

- Public spaces and facilities will be accessible and of a high standard
- The distinctive character of our towns, villages and rural areas is maintained
- There is a safe environment for all.

Russel Wedge
Parks & Recreation Manager

WAIMAKARIRI DISTRICT COUNCIL

215 High Street
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RANGIORA 7440
New Zealand

Phone: (03) 311 8900
or: (03) 327 6834
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www.waimakariri.govt.nz

Dear Resident,

Residents of Queen Street have approached Council to express concern over the effects of the London plane trees (Platanus × acerifolia) to their properties. Residents are concerned about the shading of their property and of the leaf fall created by the trees.

To overcome the problem of shading and leaf fall to residents Council has developed four future management strategies:

1. Staged Replacement
2. Selected Removal
3. Pollarding
4. Remain the same

As a resident of Queen Street please take your time to consider the ongoing maintenance and management of the trees. Please complete the form attached and return to Council by the 23rd December 2011.

Please direct any queries to Chris Brown at chris.brown@wmk.govt.nz, or 03 311 8900.

Chris Brown
COMMUNITY GREENSPACE MANAGER

111214060152

1 STAGED REPLACEMENT

Staged replacement would involve replacing the trees with a species which does not create shade and leaf fall to properties. A programme would be established to replace the trees over a period of time. The trees would be replaced when removal is necessary due to poor health or when there are significant problems caused to residents.

Positive effects

- Retain the existing street tree avenue effect
- Long term reduction in shading of properties and leaf fall

Negative effects

- Lower short term reduction in shading of properties and leaf fall
- Combination of 2 tree species while the replacement programme is in process

Possible replacement species:

- Columnar English Oak (Quercus R Fastigata)
- Flowering Cherry (Prunus spp.)

Flowering Cherry (Prunus spp.)

2 SELECTED REMOVAL

Selected removal is the removal of the trees which have current health problems as assessed by an arborist and which are creating the most shading and leaf fall to residential properties.

Positive effects

- Removal of the trees which are causing shading or leaf drop only
- Removal of tree which are of poor health
- Retain the existing street tree avenue effect (dependant of trees removed)

Negative effects

- Loss of trees
- Loss of avenue effect from evenly spaced trees

A plan of the trees identified for selected removal is attached. If selected removal is a method preferred by residents of Queen Street further consultation on trees for removal would be undertaken.

Columnar English Oak (Quercus R fastigata)

3 POLLARDING

Pollarding is the removal of the crown structure of a tree leaving only the trunk and stubs to generate new shoots and branch structures.

Positive effects

- Reduction of tree height, and therefore shade and leaf fall

Negative effects

- Pollarding is considered to create an unsightly tree form
- Pollarding on large mature trees can be damaging to the health of the tree
- High maintenance and cost to Council
- New limbs can be weak and liable to failure, creating ongoing maintenance issues
- The trees are more prone to disease and poor health

Pollarding

4 REMAIN THE SAME

The trees are currently on a pruning programme of 3 to 5 years. The purpose of the pruning programme is to reduce shading and leaf fall to residential properties by maintaining the height and crown, and spread and width of the trees.

Positive effects

- Retain the existing street tree avenue effect
- No reduction in the health of the trees
- Trees remain a good form and shape

Negative effects

- No further reduction in shade or leaf fall from trees

Pollarding

Please complete and return to the Waimakariri District Council, Rangiora Service Centre Reception, 215 High Street, Rangiora, 7400.

Please direct any queries to **Chris Brown** at chris.brown@wmk.govt.nz, or by phoning 03 311 8900.

London plane trees in Queen Street

Please indicate your preference for the ongoing maintenance and management of the trees on this form. You may indicate your preference for a number of management strategies described on the flyer. Please explain the reasons for your preference.

Remain the same Staged replacement

Selected Removal Pollarding

The reasons for my preference/s are:

Name: _____

Address: _____

Contact Phone: _____

Please complete and return to the Waimakariri District Council, Rangiora Service Centre Reception, 215 High Street, Rangiora, 7400.

Please direct any queries to **Chris Brown** at chris.brown@wmk.govt.nz, or by phoning 03 311 8900.

London plane trees in Queen Street

Please indicate your preference for the ongoing maintenance and management of the trees on this form. You may indicate your preference for a number of management strategies described on the flyer. Please explain the reasons for your preference.

Remain the same Staged replacement

Selected Removal Pollarding

The reasons for my preference/s are:

Name: _____

Address: _____

Contact Phone: _____

120306011853[v2]
GOV-26-02-06

TRIM Record Number

WAIMAKARIRI DISTRICT COUNCI

REPORT

FILE NO:	GOV-26-02-06, CPR-04-25-01 / 120306011853
REPORT TO:	Rangiora Community Board
DATE OF MEETING:	14 March 2012
FROM:	Chris Brown - Community Green Space Manager
SUBJECT:	Queen Street Trees
SIGNED BY: (for Reports to Council or Committees)	Department Manager / Chief Executive

1. SUMMARY

1.1. The purpose of this report is to provide the board with an update regarding the Queen Street London Plane trees and request a mandate to proceed with further consultation regarding their continued management.

1.2. This report gives a brief history of the Queen Street trees and identifies past decisions which have been made regarding their maintenance and management. The report identifies the current community views collected from the residents in Queen Street and recommends that staff form a working party with two members of the board to undertake further consultation.

1.3. Staff have received complaints regarding leaf fall and shading caused by the trees in Queen Street and have had the trees pruned the trees as much as practicable.

Attachments:

i. Queen Street Consultation survey
ii. Queen Street Consultation feedback
iii. 1996 Services Committee report
iv. 1996 Treescape report
v. 2007 Treetech report
vi. 2010 Treetech report
vii. 2010 Rangiora Ward Advisory Board Report

2. RECOMMENDATION

THAT the Rangiora Community Board:

(a) **Receives** report No. 120306011853.

(b) **Notes** that maintenance of the trees in line with the current contract has been undertaken on three separate occasions this financial year.

(c) **Approves** staff continuing with the current tree maintenance programme for the Queen Street trees.

OR

(d) **Approves** consulting with the Rangiora Community on a selective removal and staged replacement programme of the plane trees.

(e) **Appoints** Board Member ..... and.....to form part of a joint staff and community board workshop to approve the consultation strategy for seeking the community views on selective removal and staged replacement programme

3. ISSUES AND OPTIONS

3.1. The London Plane (Platanus acerifolia) trees along Queen Street have for a number of years been a topic of debate amongst residents. As the trees grew in size the Council were made aware by residents of issues relating to leaf fall and shading.

3.2. In 1996 a report was presented to the Services Committee which recommended that the trees receive additional pruning to reduce the density of the canopy but retain the existing height. It was also recommended that consideration be given to replacing selected trees on the south side of Queen Street.

3.3. In the same year a report was produced by Treescape who recommended that the two most viable options for the trees long term was to either remove the trees and replace completely or allow the trees to develop into large open crown specimens. This report, along with the 1996 staff report is attached.

3.4. In 2007 a detailed report was carried out by Treetech which looked closely at every tree using two separate arboricultural tree assessment methods. The STEM working method looks at the condition (health) amenity (community benefit) and notability (distinction) of the trees. The ISA working method looks at species rating, condition and location. The total economic value of the trees taking an average of the results received by both methods is $316,879.19.

3.5. This report concluded that a phased removal and replacement policy be implemented to remove trees now to allow space for the development of the remaining trees and to ensure that Queen Street retains its identity. This report is attached.

3.6. In 2010 another report was produced by Treetech after further complaints from residents in the street regarding lack of light and continued leaf fall. The report recommended three potential options for the maintenance of the trees. These included:

3.6.1. Option 1 - As per existing tree maintenance contract, which requires crown pruning in such a way to reduce the spread of the branches but not to encourage vigorous re-growth. This option also recommended a phased replacement programme be put in place.

3.6.2. Option 2 - Crown reduction to lower the height of the trees as well as reducing the width of the trees. This is essentially what is known as a reduction. A reduction requires a regular maintenance programme in order to keep the trees at the reduced size long term

3.6.3. Option 3 - Pollarding the trees which reduce all lateral material from the tree and like a reduction will require an ongoing regular maintenance programme.

3.7. Russell Wedge the Parks and Recreation Manager at the time produced a report for the Rangiora Community Board which recommended that option 1 from the 2010 Treetech report be implemented. At the meeting held to hear the report on 9th June 2012 Barbara

Hill a resident of Queen Street presented a power point presentation which outlined her concerns regarding light and leaf fall.

3.8. The resolution from the Board is below:

THAT the Rangiora Ward Advisory Board:

(a) **Receives** report N° 100527017961.

(b) **Recommends** to the Council that it proceed with Option 2.

AMENDMENT

Moved J Gerard Seconded Councillor Cruickshank

THAT the Rangiora Ward Advisory Board:

(a) **Receives** report N° 100527017961

(b) **Supports** the scheduled maintenance prune (Option 1 on a three year cycle) as the base for the Plane trees on Queen Street as proposed in the Treetech Ltd Tree Report, Queen Street (100527017912) but provide heavier prune and thinning

(c) **Notes** the Plane trees on Queen Street are due for their schedule maintenance prune this winter, 2010.

(d) **Notes** any tree branches will be cleared away from the street lights or residential properties during the maintenance prune.

(e) **Notes** a stage replacement programme for the Plane trees will be implemented when trees require replacement and notes that with tree No. 17 and 27 removed, and replaced 2010 with the same variety of Plane tree.

3.9. Since 2010 Treetech have on a number of occasions visited the trees to undertake a prune in line with option one of the report. This year Treetech have returned on three separate occasions in response to complaints from residents.

3.10. The trees have now been lifted and thinned as much as possible with some trees having so few lateral branched the arborists are having trouble climbing them.

3.11. It is important to note that the options presented in the report in June 2010 were mutually exclusive. It is not possible to achieve a mixture of either of the options as each pruning method induces a different growth response from the tree and therefore different ongoing maintenance requirements.

3.12. The resolution stated that a staged replacement programme be implemented when trees require replacement. Currently the trees are all showing average form and vigour with few structural faults. In terms of health there are no current reasons why the trees should be replaced.

3.13. In 2011/12 a further complaint was received from the resident of 59 Victoria Street. Again the complaints related to the lack of light due to shading from the trees and also the amount of leaf fall. As a result of these complaints a number of meetings were held with Council staff and Treetech representatives. No resolution was able to be achieved through these meetings.

3.14. The Management Team/CEO has reviewed this report and supports the recommendation to continue with the regular maintenance programme and retain the trees in Queen Street. In the event that that resolution is unacceptable to the Board, the Management Team considers that a staged replacement should occur.

4. COMMUNITY VIEWS

4.1. Understanding the notability of these trees staff undertook a survey of the residents of Queen Street to establish what those most affected wanted to see happen with the trees. Staff worked with Treetech to identify the four most viable options for the ongoing maintenance and management of the trees. Residents were asked to choose an option and explain the reasons for their choice. The consultation material which was sent to each Queen Street property is attached to this report. The results are summarised below:

Pollarding	2
Staged replacement	6
Selected removal	2
Remain the same	5

4.2. The comments associated with each submission are attached to this report. It is clear however that there is an obvious difference in opinion regarding what exactly to do with the trees long term.

4.3. The trees do not only affect the people living in Queen Street. The trees have created an iconic avenue effect which is enjoyed by many from around the district and any potential removal of trees will create a lot of public debate. Staff believe it is important that wider consultation is completed before any decision to remove trees is made.

4.4. If the recommendations in this report are approved a working party with two community board members and staff from the Community Green Space Team will be formed to undertake wider consultation regarding the future of the Queen Street Trees.

5. FINANCIAL IMPLICATIONS AND RISKS

5.1. In 2007 a study of the Queen Street trees showed their economic value to be $316,879.19 or $7369.28 per tree. In the last five years the trees have continued to show good form and vigour so it expected that this figure would have only increased.

5.2. The current tree maintenance programme for Queen Street trees costs approximately $6,000 pa.

5.3. The trees are iconic to Rangiora and the district. Staff believe that it is imperative that wider consultation is carried out before any decisions are made regarding removal. The removal of any tree invokes a certain degree of negative public opinion and due to the importance and notability of the Queen Street trees it is expected that this opinion will be strong.

6. CONTEXT

6.1. Policy

This matter is not a matter of significance in terms of the Council's Significance Policy.

6.2. Legislation

N/A.

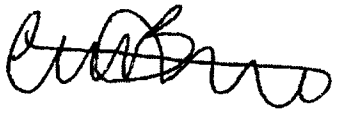
6.3. Community Outcomes

The provision of parks, reserves and sports grounds contribute to a range of community outcomes, including that:

- Public spaces and facilities will be accessible and of a high standard.
- People will involve themselves in a range of recreation activities.

District Development contributes to a range of community outcomes, including that:

- The distinctive character of our towns, villages and rural areas is maintained.
- Public spaces and facilities are plentiful, accessible and high quality.



Chris Brown
COMMUNITY GREENSPACE MANAGER

Attachment i

111214060152

WAIMAKARIRI DISTRICT COUNCIL

215 High Street
Private Bag 1005
RANGIORA 7440
New Zealand

Phone: (03) 311 8900
or: (03) 327 6834
Fax: (03) 313 4432
www.waimakariri.govt.nz

Dear Resident,

Residents of Queen Street have approached Council to express concern over the effects of the London plane trees (Platanus × acerifolia) to their properties. Residents are concerned about the shading of their property and of the leaf fall created by the trees.

To overcome the problem of shading and leaf fall to residents Council has developed four future management strategies:

1. Staged Replacement
2. Selected Removal
3. Pollarding
4. Remain the same

As a resident of Queen Street please take your time to consider the ongoing maintenance and management of the trees. Please complete the form attached and return to Council by the 23rd December 2011.

Please direct any queries to Chris Brown at chris.brown@wmk.govt.nz, or 03 311 8900.

Chris Brown
COMMUNITY GREENSPACE MANAGER

1 STAGED REPLACEMENT

Staged replacement would involve replacing the trees with a species which does not create shade and leaf fall to properties. A programme would be established to replace the trees over a period of time. The trees would be replaced when removal is necessary due to poor health or when there are significant problems caused to residents.

Positive effects

- Retain the existing street tree avenue effect
- Long term reduction in shading of properties and leaf fall

Negative effects

- Lower short term reduction in shading of properties and leaf fall
- Combination of 2 tree species while the replacement programme is in process

Possible replacement species:

- Columnar English Oak (Quercus R Fastigata)
- Flowering Cherry (Prunus spp.)

Flowering Cherry (Prunus spp.)

2 SELECTED REMOVAL

Selected removal is the removal of the trees which have current health problems as assessed by an arborist and which are creating the most shading and leaf fall to residential properties.

Positive effects

- Removal of the trees which are causing shading or leaf drop only
- Removal of tree which are of poor health
- Retain the existing street tree avenue effect (dependant of trees removed)

Negative effects

- Loss of trees
- Loss of avenue effect from evenly spaced trees

A plan of the trees identified for [illegible] attached. If selected removal is [illegible] residents of Queen Street [illegible] for removal would be [illegible]

Columnar English Oak (Quercus R fastigata)

3 POLLARDING

Pollarding is the removal of the crown structure of a tree leaving only the trunk and stubs to generate new shoots and branch structures.

Positive effects

- Reduction of tree height, and therefore shade and leaf fall

Negative effects

- Pollarding is considered to create an unsightly tree form
- Pollarding on large mature trees can be damaging to the health of the tree
- High maintenance and cost to Council
- New limbs can be weak and liable to failure, [illegible] ongoing maintenance issues
- [illegible] more prone to disease and poor

Pollarding

4 REMAIN THE SAME

The trees are currently on a pruning programme of 3 to 5 years. The purpose of the pruning programme is to reduce shading and leaf fall to residential properties by maintaining the height and crown, and spread and width of the trees.

Positive effects

- Retain the existing street tree avenue effect
- No reduction in the health of the trees
- Trees remain a good form and shape

Negative effects

- No further reduction in shade or leaf fall from trees

Pollarding

Please complete and return to the Waimakariri District Council, Rangiora Service Centre Reception, 215 High Street, Rangiora, 7400.

Please direct any queries to **Chris Brown** at chris.brown@wmk.govt.nz, or by phoning 03 311 8900.

London plane trees in Queen Street

Please indicate your preference for the ongoing maintenance and management of the trees on this form. You may indicate your preference for a number of management strategies described on the flyer. Please explain the reasons for your preference.

Remain the same Staged replacement

Selected Removal Pollarding

The reasons for my preference/s are:

Name: _____

Address: _____

Contact Phone: _____

Please complete and return to the Waimakariri District Council, Rangiora Service Centre Reception, 215 High Street, Rangiora, 7400.

Please direct any queries to **Chris Brown** at chris.brown@wmk.govt.nz, or by phoning 03 311 8900.

London plane trees in Queen Street

Please indicate your preference for the ongoing maintenance and management of the trees on this form. You may indicate your preference for a number of management strategies described on the flyer. Please explain the reasons for your preference.

Remain the same Staged replacement

Selected Removal Pollarding

The reasons for my preference/s are:

Name: _____

Address: _____

Contact Phone: _____

Attachment ii

Queen street tree feedback

17 B Queen Street		**Pollarding**	03 3135337	I have lived in the street for 45 years, and the tree always pollard them by half the height each year. Just do the same.
			276544568	
41 Queen Street		**Staged replacement**	03 313 8087	take out every second tree and replace with cherry (or other of suitable size), when established take out the other planes and replace. Understand plane wood makes good furniture.
35 Murray Street	R & R Lily	**Staged replacement**	03 313 6780	
15 C Queen Street	J & M Stewart	**Staged replacement**	03 313 7743	
		Selected removal		Remove London Plane trees and replace them with trees like in Murray Street
35 Queen Street	M & D Avent	**Selected removal**	03 310 6641	(selected reomval) Immediate partial relief of winter shading
		Staged replacement		(staged removal) Remove every second plane tree (both sides of street) replace with flowering dogwood (or similar). Total removal and replace within 5 years
29 Queen Street	Pam Carpenter & Greg Coleman	**Remain the same**	03 313 1940	The trees are what makes this street so attractive, we always liked it even before we moved to this address. Autumn does make for a bit of sweeping but it would be a shame to lose the trees. We don't find the shape a problem, it keeps the house cool in summer.

Queen Street	Brown	**Remain the same**		Please leave the trees alone, they were planted for a reason. If you don't want them there, then you shouldn't have planted them there. And other residents should not be living down this street if they don't like the trees, the trees were there first.
15a Queen Street	Ms Robynne Theresa Reeve	**Staged replacement**	021 1689887	My town house is very shaded and I have a large problem with leaf fall. Replacement with trees such as English oak or flowering cherry would overcome this problem.
		Selected removal		
		Remain the same		
		Pollarding		
		Remain the same		
1 Queen Street	B & A Hill	**Staged replacement**	03 3136008	The current strategy has resulted in these trees becoming completely out of hand so a major solution is required. Our solution would be to remove every second tree, with the remianing trees being maintained in accordance with the 2010 recommendation of the Rangiora Ward Advisory board.
		Selected removal		
17a Queen Street	Joan Duekshaw	**Staged replacement**		My drive and garden are covered with plane tree leaves when they fall
148 King Street	Katrina Anderson	**Remain the same**		They are what make Queen Street

Pollarding	**2**
Staged replacement	**6**
Selected removal	**2**
Remain the same	**5**

Attachment iii

0806017621
RES-10

22

PROCESSED IN TRIM

WAIMAKARIRI DISTRICT COUNCIL

REPORT

FILE NO:	464-28, 554-02/96082100031
DATE:	21 August 1996
REPORT TO:	SERVICES COMMITTEE
FROM:	COMMUNITY FACILITIES OFFICER
SUBJECT:	QUEEN STREET PLANE TREES

1. SUMMARY

This report outlines the result of a public meeting to discuss a request by some of the residents of Queen Street to prune the Plane trees.

2. RECOMMENDATION

1. That the following actions be confirmed

   i. That additional pruning work be carried out on the trees this winter (1996) to substantially reduce the density of the canopy, but retaining the existing height of the trees.

   ii. That a further meeting with the residents be held in the autumn of 1997 to assess whether the residents are satisfied with the results achieved by the pruning in 1996.

   iii. That consideration be given to replacing selected trees on the south side of Queen Street which are still causing particular concern to adjoining residents.

3. BACKGROUND

A request was received from Mr Stalker of 7A Queen Street, requesting that the plane tree outside his property be topped due to the effects of shading. He was advised that this was not our current practice and he subsequently contacted a number of other residents in the street and they spoke to the Services Committee. Following this, it was agreed that a street meeting be held to canvas all views on the issue.

This meeting was held on Saturday 27 July and was attended by approximately 20 residents of Queen Street, plus a representative from the Keep Rangiora Beautiful Committee. Also in attendance were Councillor Ayers, Shepherd-Wright, and Smith.

The residents discussed their concerns about the trees which primarily relate to shading (autumn period the worst), problems with leaf fall, shading of street lighting and leaves blocking the gutters and subsequent problems with the frequency of cleaning out the gutters and footpaths.

4. OPTIONS

1. Topping

A severe topping of the trees was preferred by a number of the residents. Although not a complete pollard down to the original stumps, it would be very close to this and a similar result.

Topping of trees is not a good arboricultural practice as it leads to a range of other problems. If pruned in this way, the trees will produce a mass of new shoots. This will cause a dense low canopy and a very heavy shadow, although this will not be thrown as far. The amount of leaves produced and subsequent leaf fall will probably be more excessive than currently is the case. This pruning practice will need to be carried out every year to maintain the trees at this height. Also over a period of time, it will lead to decay and disease in the trees and a need for their replacement earlier than otherwise would be expected.

2. Crown Reduction or Thinning

The trees were thinned last year, but perhaps not as heavily as could have been done. Crown reduction still retains the shape and character of the trees and allows light to both filter through the crown and also to get underneath the tree, ie the crown is maintained at a much higher level. However care must be taken not to thin the trees too heavily, otherwise other problems may eventuate in terms of producing abundant new growth and allowing wind damage due to an open canopy.

3. Removal and Replacement

If it is decided that the trees are totally unsuitable for the site, it is preferred that the trees be removed and replaced with a more suitable species in preference to the option of topping.

A report from arboricultural consultants Treescape, providing comment on the options outlined above is attached.

5. DISCUSSION

At this stage Council does not have a clearly defined policy on the maintenance and removal criteria for its trees in reserves and streets. It is my intention to prepare such a policy for consideration in the near future. However, examples such as this and some other requests for tree removal in Church Street and Golding Avenue assist in establishing Council's philosophy on the matter of tree protection in the District.

The Council is at present encouraging the establishment of street tree planting throughout the District, through requirements for street planting in new subdivisions and also where kerb and channel replacement occurs, plus it is probable that the District Landscape Plan will provide guidance for planting of street trees in a number of existing streets. At present there are very few streets in our District that contain what might be described as medium to large trees. This will gradually change in the future, as recent plantings become established. Although new plantings are invariably smaller size trees than the Plane trees in Queen Street, many of them will still develop to a height where residents are concerned about shading and leaf fall.

24

Our objective and current practice, is to allow trees to grow as naturally as possible. The reason for this is twofold:

a. so that maximum amenity value is obtained from the trees
b. good arboricultural practices are followed which will ensure the continued long term health of the trees.

As such, Council needs to give careful consideration as to its willingness or otherwise to top or otherwise severely prune trees at the individual request of adjoining property owners.

6. CONCLUSION

The trees on Queen Street provide one of our more attractive avenue type plantings. However, due to the alignment of the street, the houses on the south side suffer problems with shading. Plane trees are a large growing tree and would not be planted in streets now, as they are considered unsuitable. It is my recommendation that topping of the trees is not a desirable option, primarily from a amenity and economic point of view, and also as it will not significantly reduce the problems that the residents on the south side our experiencing. The available options are significant crown reduction (thinning) (which has already been carried out) or removal and replacement of selected trees where residents are most severely affected.

Brian Milne
COMMUNITY FACILITIES OFFICER

Attachment iv

25

554-02
960715059

treescape LTD

ARBORISTS • CONSULTANTS • POWERLINE PRUNING

Auckland
Head Office
P.O. Box 35642 Auckland 10
Ph: 09-276 2846 Fax: 09-276 2899

Wellington
P.O. Box 49-152
Silver Stream Wellington
Ph/Fax 04-526 3775

Christchurch
P.O. Box 9066
Christchurch
Ph/Fax: 03-326 2732

CLIENT : Waimakariri District Council

ATTENTION : Brian Milne

DATE : 4/7/96

RE : Plane trees Queen Street Rangiora.

This report has been requested to outline the implications involved in the reduction of the Plane trees on the south side of Queen Street, Rangiora .

If arboriculturaly correct crown reduction is to be carried out a regular maintenance schedule will need to be in place . This maintenance will require the removal of regrowth, and thinning of the dense crowns that will develop, as a result of the trees being reduced . If the maintenance isn't done every year, then the risk of branch failure and dense canopies developing is high .

The new growth that occurs will be weakly attached to the parent stem and spindly . Many stems will die or break, littering the ground and will look unsightly . The common mistake in thinking that topping trees will increase light and reduce leaf drop will quickly be proven false . The trees require a full crown of foliage to be healthy . Reducing the amount of foliage causes stem and root die back which consequently leads to decay.

The topping results in low, dense crowns, which cause shading, and blocks out street lighting . Compared to allowing the trees to grow to full maturity, developing open crowns, allowing natural light to filter through, with only some pruning required to direct the growth away from the street lighting .

26

Conclusion :

If the trees are to be topped, they will need to be pruned on an annual basis and the trees should never be allowed to develop full canopies again, due to the imminent hazard they would pose to the public .
The annual cost of such a task would be approximately $110 per tree .
The only two options that should be seriously looked at are :

Allowing the trees to develop into mature open crown trees .
or
Their complete removal and replacement with a slow growing species suitable to this site .

Yours sincerely

Total of 44 trees

Tim Rillstone
NZ Cert Arb.

081029034945
RES-10

Attachment ✓

Iain Mackinnon *Dip Arb. Dip For*
Cell Phone 021 223 4403

E-mail: jjimac@xtra.co.nz

Tree Report, Queen Street, Rangiora.

October 2007

For: Waimakariri District Council
Date: October 2007

11 November 2007

Client Address:	Parks and Recreation, Waimakariri District Council Private bag 1005 Rangiora 7440
Site Address:	Queen Street Rangiora
Attention:	Russel Wedge, Parks and Recreation Manager
Dated:	October 2007
Prepared by:	Arboricultural Consultancy NZ Ltd PO Box 35 308 Christchurch
Arborist:	I. MacKinnon. Dip Arb: Dip For
Cell phone:	021 223 4403
Status	Draft
Our Ref:	mackinnon/treetech/211007/1107

11 November 2007

Contents

1.0 Introduction

This report has been commissioned by Russel Wedge, Parks and Recreation Manager, Waimakariri District Council, Rangiora.

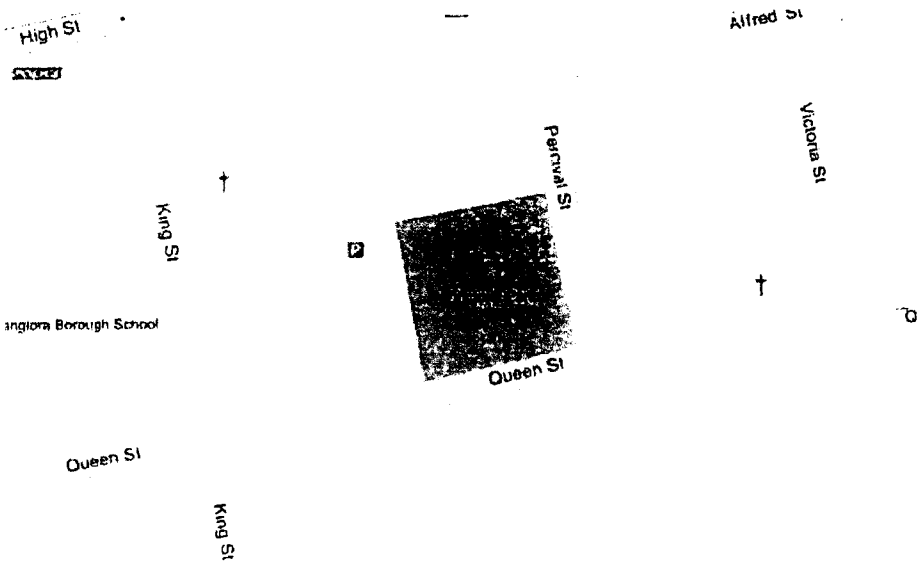
The purpose of this report is to provide an assessment of the general condition of the trees, the effects of the root system on the pavements and a valuation of the trees in Queens Street, Rangiora.

The inspection and photographs were taken between the 16th and 17th of October 2007. The weather was sunny and mild with a light breeze.

1.1 The Site Situation

Queen Street is a residential street located to the south of the Civic Centre and Library. The trees inspected are planted as a single row on the north and south sides of the road running from Victoria Street to King Street.

Map showing the location of Queen Street, Percival Street and King Street in relation to Victoria Park.



Queen Street runs approximately east / west and has residential properties located on both sides of the road, there is a supermarket (Woolworths) located at the eastern end on the junction of Victoria Street and Queen Street. Queen Street is also the location for Rangiora's premier park; Victoria Park.

The first three trees were planted in Victoria Park in 1902 when the park was purchased by the Borough Council. These were a memorial Oak for Queen Victoria, a second Oak to mark King Edwards Coronation and a weeping Ash as a memorial to those local men who fell during the Boer War. Later in 1907 the gardens were laid out and planted and more trees were added. These trees can be seen as mature specimens in the park. It seems likely that the two London Planes *Platanus x acerifolia* were planted at this time. These trees can be seen in the south east and south west corners of Victoria Park.

1.2 Scope of Work

- Undertake a Visual Tree Inspection (VTA) of all trees in Queen Street from King Street to Victoria Street.
- Gather basic data on the trees for the Councils street tree data base
- Comment on the effect of the roots on the pavement, road and sealed surfaces on residential property
- Provide a photographic record of all Plane trees in Queens Street
- Include a tree valuation using the STEM and ISA/CTLA systems
- Identify any remedial required
- Provide recommendations for the future management of the trees

1.3 Inspection Method

All the trees in the street were tagged using a plastic Latschbacher tag with a unique identifier stamped on them. Tree number one is located at the junction of Queen Street and Victoria Street and twenty two is located at the King Street end, all other trees are on the north side of Queen Street. A visual tree inspection (VTA) was then undertaken from ground level. No samples were taken or tests undertaken. A VTA is undertaken by observing the tree as a whole from a distance and then making a detailed assessment of various parts of the tree. This involves a 360-degree inspection of the tree noting any significant defects on a check sheet and making a photographic record as required. A brief check of the immediate area surrounding the tree is also made, taking into account non-tree details e.g. soil, drainage, buildings. A report on each individual tree or group of trees (as agreed prior to inspection) is produced as a result of the inspection.

The tree price used in the calculation is based on a quote from The Little Big Tree Company (quote by phone 02 10 07) is for a 2.2m tall tree with a stem diameter of 40mm: cost $130.00.

The maintenance figure of $32.50 per year was an estimate based on discussion with various parties.

The figure of $150.00 for site preparation, transport and planting is an industry accepted average figure.

The value of $1350.00 used for the largest transplantable tree is from a Dunedin nursery and is current for this planting season.

The species rating for the ISA/CTLA valuation was arrived at in May this year during a training course run by CCC and is being used as there is currently no South Island data available.

1.4 STEM Working Method.

After a visual inspection a score sheet is completed and the values calculated based on these observations.

The STEM system is based on 3 main criteria:

1. Condition (health)
2. Amenity (community benefit)
3. Notability (distinction)

Points are awarded for each section and then this score is applied to a replacement tree value to produce the final tree value. All costs applied in this situation are based on standard Local Authority discount rates plus GST.

1.5 ISA/CTLA working method

After a visual inspection a score sheet is completed and the values calculated based on these observations.

3 sheets are completed and values for the following criteria are calculated:

1. Species rating
2. Condition
3. Location

Each of these values is a calculated as a percentage and is applied to a replacement tree trunk area value and a replacement cost. This is then used to produce the appraised value in dollars rounded to the nearest $100.00 including GST.

2.0 Executive Summary

Principal site characteristics:

- The section of the street surveyed is bounded in the east by Victoria Street and in the west by King Street. The street runs east west with trees planted on both sides of the street at even spacing
- This avenue was most likely planted fifty years ago and the trees show evidence of having been regularly pollarded in the past. This style of tree management is contrary to current Waimakariri District Council (WDC) tree policy and hasn't been carried out for some years now.
- There are 43 trees planted in the survey area. They are all of the same species i.e. *Platanus x acerifolia* London Plane. Average stem diameter at 1.4m = 35.7cms, height = 14.2m and crown spread at the widest point = 13.58m
- Planting pits were not well defined as all the trees were planted in the grass berm on the road side edge. The berm and pavement were approximately 4m wide and the trees set in 600mm from the kerb edge.
- Pavement damage was observed around many of the trees but not all.
- Pavement damage was also observed which was most likely caused by residents or park trees
- Damage was observed up to 6m from the stem in one case

2.1 Tree rating

The following table shows the numbers of trees in each of the ratings as gathered in the Tree Data table at the end of the report. As part of the process of gathering the basic data each tree was awarded a rating based on condition at the time of inspection. This rating takes into account the structure of the tree as well as the vigour and vitality and is used to illustrate the amenity value of each tree. (See page 29 appendix 8.4 for definitions.)

Rating	Number
A	4
B	26
C	5
R	8
Total	43

2.2 Tree value

STEM	$640,557.08.
	Average value = $14,896.68 per tree
ISA / CTLA	$228,800.00 (Rounded to nearest $100.00)
	Average value = $5,320.94 per tree

3.0 Residents

During the survey period I was approached by several residents who showed interest in what I was doing. The general consensus of opinion was that the trees were an asset to the town but that they had been allowed to become too large. This resulted in too many leaves during the fall.

Only one person expressed any negative views regarding the trees. This person was not a resident of Queen Street but lived in a nearby street. This person held very negative views regarding trees in general but was most concerned with the effect the roots had on wheelchair users.

The general consensus of the residents I spoke to was that:

- The trees should be retained
- The trees required crown reduction on a regular basis
- The timing of the road sweeper should be adjusted to coincide with maximum leaf fall

4.0 Tree roots

Tree roots have three major functions:

- They absorb water and nutrients from the soil
- They serve as a store for carbohydrates for the tree
- They form a supporting structure for the tree

In addition they perform a gas exchange function as the tree respires.

A tree's roots are generally fairly shallow with 90% of all roots found in the upper 60cms of soil. The spread of roots in contrast is often underestimated with the roots often spreading way beyond the drip line of the tree. The idea of a tap root is also one which is not strictly accurate. The roots develop from seed

producing a tap root until the soil conditions become unsuitable and then the lateral roots develop usually at around two or three years old.

These lateral roots then develop and become the root system we all know. Usually a tree will produce between four and eleven roots which develop in girth near the stem and become the main supporting structure for the tree. These roots grow out from the tree and taper rapidly until at five metres or so they are only two to five centimetres in diameter.

Root distribution is not regular and does not conform to the same basic rules as branch development above ground. This is because root growth is opportunistic and only occurs where the roots can survive. Roots develop and multiply where the conditions are best but are easily deflected by pipes, rocks etc.

The greatest numbers of roots are found near the surface of the soil where the soil is loose and there is easy access to water, nutrients and oxygen. The number and size of roots decreases as the depth increases which is why roots are rarely found below one metre depth of soil. Often the conditions found just below the surface under the Tarmac suit trees roots well. Light is excluded, there is often a small air gap and moisture may also condense in this area.

4.1 Soil Compaction

Soil compaction is the major cause of death or decline of mature trees where efforts have been made to save them. It poses a very serious threat to good soil structure. Delicate soil pores are easily crushed, decreasing their capacity for water and air movement and hindering root growth. Wet soil is particularly vulnerable, because water lubricates soil particles and loosens binding agents. Small particles slip between the larger particles, filling the pore spaces. Loose soils will compact more than tight soils, and soils that have a broad range of particle sizes can be more severely compacted than more uniform soils.

Few soils can withstand traffic without becoming severely compacted. Compaction depends not only on the amount of pressure exerted, but also on the duration and frequency of exertion. For example, the heel of a shoe exerts force per unit of area equal to that of heavy equipment (although the turning, starting and stopping of heavy equipment increases the force). Pressure spreads with depth, so the compacting effects of pedestrians and vehicles usually occur to the top four inches (100mm) of the soil

4.2 Damage

The damage caused by roots to a Tarmac surface is usually in the form of lifting and cracking of the surface. This is caused by the development of the root system pressing directly against the Tarmac or stones etc. in the soil. Damage to the surface is not only caused by surface roots but by fast growing deep roots as deep as 0.4m.

The damage caused by roots can be exacerbated when an area of Tarmac has been repaired. Often the roots are chiselled away or pruned and the resulting callous growth forms a large knot of tissue which in

turn causes surface damage. When a root is pruned there is potential for it to develop a clump of shoots similar in formation to an old pollard point in the crown. This mass of additional shoots forms many lateral roots which can often cause surface damage.

Research has shown, Nicoll and Armstrong (1997) that large surface roots caused the most severe damage but deep roots undergoing secondary thickening also caused damage. The same research also showed that in general, cracks follow the underground path of roots but were less distinct for deep roots.

4.3 Prevention

The simplest and most obvious method is to avoid conflict in the first place by allowing more room for the trees or planting a tree which will not require much space. The location of the tree is also important. Where possible it should not be planted on the road side of the pavement. This will allow the roots easier access to soil and nutrients in non compacted soil i.e. gardens or open spaces in residential property.

Where trees are already in place a root barrier could be installed. The vertical style of barrier is proven to be less effective than a barrier which for example is laid at an angle under the grass and deflects the roots away from the surface (USDA Forest Service 1999).

4.4 Repair

A solution often adopted is to prune the roots and relay the surface of the path over the pruned roots. This is effective in the short term on larger trees provided the pruning is undertaken two to three metres away from the base to retain the structural roots which support the tree. Removal of a significant amount of these structural roots leaves the tree unstable and vulnerable to wind throw for example. This type of catastrophic failure can result in injury and damage to property. When root pruning takes place close to the stem it should be accompanied by pruning of the crown to reduce sail area. This pruning usually needs to be repeated on a short term cycle.

Bridging the damage or raising the level of the pavement is a method which is finding favour in Europe and the USA. Building a cavity and backfilling so the roots can expand into the void under the top surface is also being used in larger cities around the world.

5.0 Comments

I estimate that the trees in Queen Street are approximately fifty years old. Comments made during the initial site visit suggest that the footpath is approximately twenty years old and is coming to the end of its expected life span.

As can be seen from the photographic record in the appendices several of the trees outside Victoria Park are poor specimens as they are suppressed by the larger trees in the park. It is unlikely that these trees will become well formed long lived specimens even if the park trees were removed.

A

Frame A shows tree #7 and the stem damage.

B

C

Frames B and C above show views of the underside of one of the lateral branches of tree #8; this damage is typical of vehicle strike.

D

E

Frames D and E above show trees #36 and 37 respectively. They illustrate the compaction and erosion around the bases of some of the trees.

F

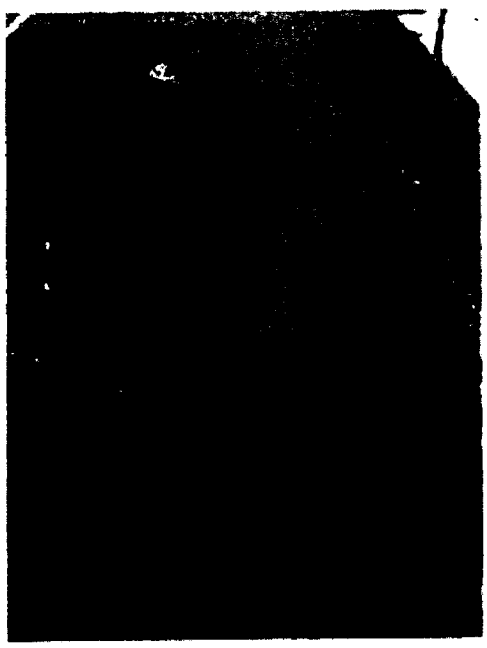
G

Frames F and G above show trees #19 and 22 respectively and illustrate two types of damage present in Queen Street. #19 has a series of cracks and raised Tarmac close to the tree; these were most likely caused by large lateral roots. Tree #22 shows cracks which are much smaller. Both areas of damage seem to be associated with civil engineering disturbance to the path.

H

Frame H to the left shows a long radial crack through the path from tree #16. As can be seen in the frame there has been some recent disturbance to the path.

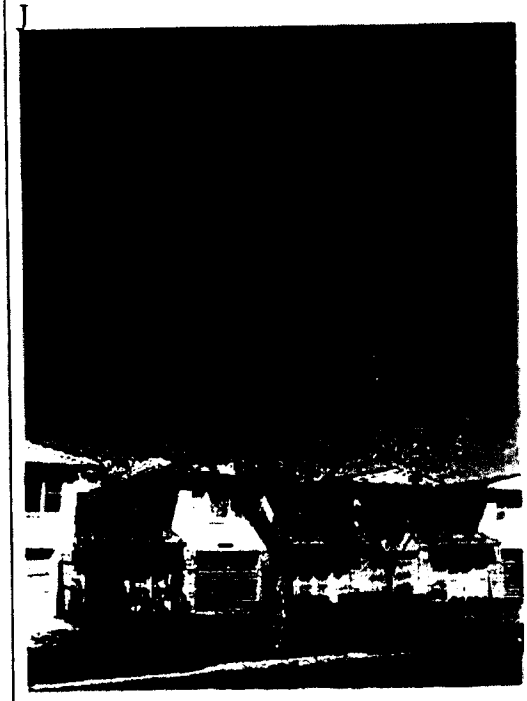
I



The frame I to the left shows a series of cracks near tree #17 which run parallel with the road but don't seem directly related to the tree's root structure.

The Plane trees in Queen Street are old pollards which have been allowed to grow out and form a more natural canopy shape. Planes are good compartmentalisers and as such will tolerate this type of management.

J



The frame J to the left shows a view of tree #10 looking from the north west. It shows species typical form for a Plane which has been pollarded and then had the pollard points pruned to allow the crown to redevelop.

6.0 Conclusion

The trees in general showed average form and vigour with few structural faults. They provide a high level of amenity to both the immediate area and the town of Rangiora as a whole.

Based on the comments received during the survey many residents will be interested in the development of the street so public consultation will be valuable to ensure that residents have a chance to express their views. I believe that these trees will become more of an asset as they develop and they will form a "monumental" style avenue in the future. The two Planes planted in Victoria Park are examples of what they will become in 50 years or so. (See photograph K on page 15.) Trees the size of those in Victoria Park are likely to be too large as street trees in this situation so it is important that a phased removal and replacement policy is put in place to remove trees now to allow space for development of the remaining trees and to ensure that Queens Street retains its identity. A phased removal policy should remove an agreed percentage of trees in the street at an agreed rate e.g. 5% in phase 1; 5% in phase2, 5 years later etc. The objective is to retain the cover provided by the trees but to provide an irregular age class structure to the street. This will loose the more traditional avenue feel to the area but still retain trees which are large but not overpowering. There are generally three to five years between each phase of removal. The timing of the removal should be confirmed subject to the residents meeting.

Based on the ISA/CTLA and STEM valuations (see appendix 8.3) the trees are valued at between $633,529.58 STEM and $228,800.00 (Rounded to nearest $100.00) ISA / CTLA. The averaged tree value is $316,879.19 or $7,369.28 per tree.

There was evidence that many of the trees had recently been maintained to remove dead wood etc. This is reflected in the low number of trees requiring work. There is evidence of vehicle strike to the underside of the canopy on the road side on several trees.

Path damage appears to be associated with repair or installation work on the footpath, the majority of which is to be found on the south side of the street. This has most likely occurred as a result of soil disturbance and which has reduced the compaction of the sub-surface material making it more hospitable to the trees roots.

The main area of the damage caused by the roots is to be found on the south side of the street between Murray Street and Percival Street. The damage here is primarily radial cracking from the base of the trees. There is also evidence of cracking parallel to the road. There are several areas where the surface has been forced up and is now causing a trip hazard. This area of damage coincides with the most recent construction on the south side and the areas of civil engineering activity. There appears to be areas of patching and areas where new services have been laid.

K 	Frame K to the left shows a view of the London Plane in Victoria Park. The tree is located in the south east corner of the park close to Percival Street. The photograph was taken looking from the north west. It is likely that this tree is 50 years or so older than the trees in the street but is considerably larger due to the better growing conditions and the fact that the street trees have been regularly pruned.

7.0 Recommendations

- Repair the path outside number 11, 12, 13 and 17 as a matter of urgency. However it is essential, that during pavement repairs the removal of large structural roots that support the tree is prevented.

- Works should be supervised by a suitably qualified and experienced arborist as roading works of this nature can lead to tree failure.

- Keep root damage to a minimum to reduce the introduction of pathogens. Any root pruning should be carried out by a suitably qualified Arborist.

- Install root control barriers to restrict root development. Build ramps over the roots to avoid damage and introduce Amsterdam soil to the area around the tree roots

- Crown lift trees over roadside edge and crown lift the Plane in Victoria Park to favour tree number 36.

- Canvas the opinions of the residents regarding the future management of the trees in Queen Street

- Consider a phased felling and replacement scheme for the damaging street trees. This should include the removal of the trees under the canopies of the mature trees in Victoria Park and the removal of others in the street to allow the remaining trees to develop to the available root and canopy space e.g. numbers 07, 14, 19, 31, 32, and 34 during the first phase. Trees 15, 17, 21 30, 33, 35 and 40 could be removed during the second phase three years after the first round of removals. Replacement trees should be planted the winter immediately following the first round of removals. The timing and number of removals should follow the WDC Tree Policy and the results of the public meetings.

- Re-direct the path around the largest trees to increase the size of the planting pit e.g. numbers 05, 08, 09, 10, 11, 12, 15 and 16

When replacing trees:

- Where possible, use large planting areas to avoid pavement damage close to the tree.

- Improve soil preparation at depth to encourage growth of deeper roots e.g. Amsterdam Soil

PLEASE NOTE: Arboricultural Consultancy NZ Ltd has taken every effort to ensure that all statements in this report are accurate and correct at the time of inspection. However trees are a natural, dynamic living entity and as such, it is not possible to fully guarantee tree stability, growth characteristics etc. This report is supplied as guide to the management of the tree detailed only. All inspections have taken place from ground level and no samples have been taken. This is a report only and not a specification of work. All dimensions have been estimated.

8.0 Appendices

8.1 References

ARMSTRONG. A. and NICOLL, B. C (1997) *Street Tree Root Architecture and Pavement Damage.* AAIS

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11 November 2007

Photographic record

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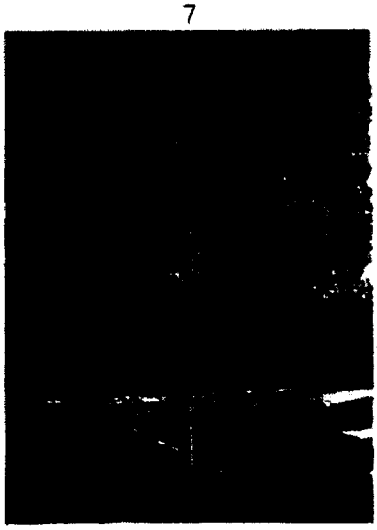

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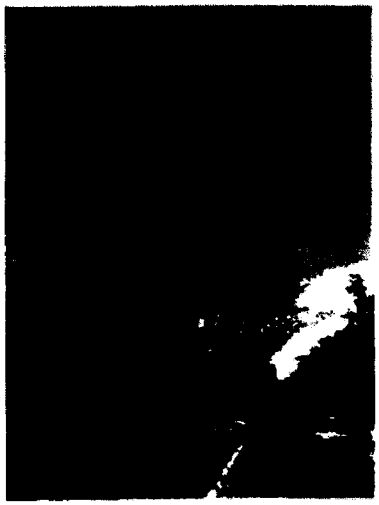

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11 November 2007

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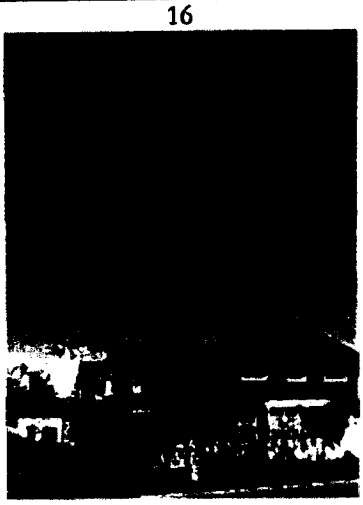

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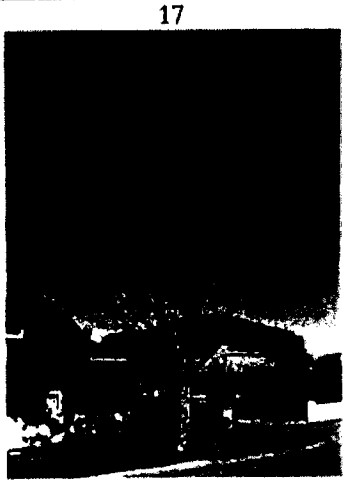

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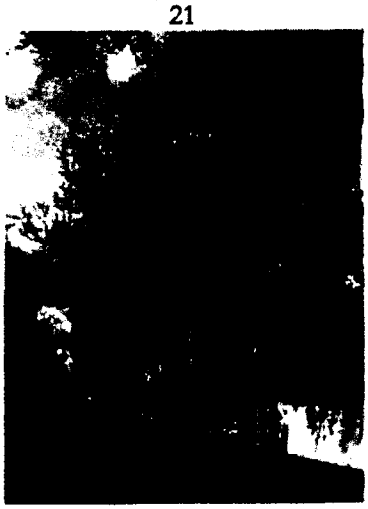

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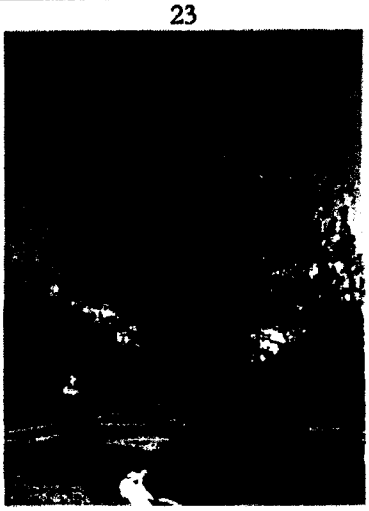

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11 November 2007

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11 November 2007

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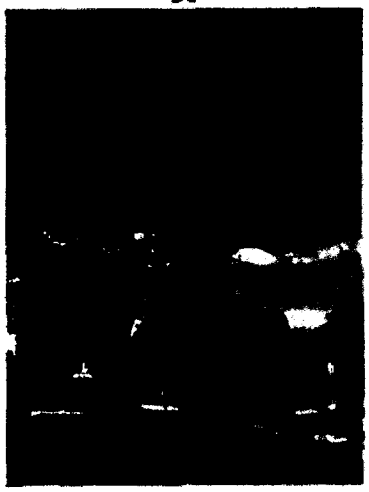

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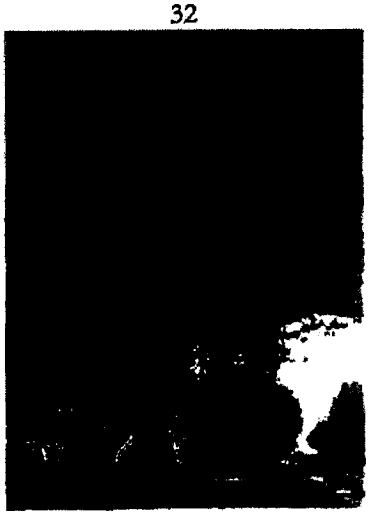

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Key to Tabled Data.

The dimensions are designed as a guide only and are not to be considered accurate measurements.

Asset ID:	This is a unique identifier allocated to each tree.
Location:	Brief description to aid finding the tree on site
Species:	Species identification based on information works by JT Salmon and Mitchell or agreed references.
Common Name:	Identification based on information works by JT Salmon and Mitchell or agreed references.
Height:	Total tree height to nearest metre (m)
Crown spread:	From stem to edge of canopy n/s/e/w (m)
Stem:	Stem diameter at 1.4m above ground (cm)
Age:	Inspectors best guess at the time of inspection
Date:	Date assessed
Size class:	Small less than 3m, medium 3 to 6m large greater than 6m

11 November 2007

Age class:	Young recently planted trees not yet established, semi-mature young trees which are established on site, mature trees which are well established and at least 15 years old, over-mature trees are those showing evidence of decline due to age.
Comments:	Based on observations of the tree and surrounding area
SULE:	Safe useful life expectancy based on the inspector's assessment. L = 5 or less M = 5 to 25 H = 25 or more
Recommendations:	Work required to improve/make tree safe based on recommendations
Comments:	Comments regarding the landscape or amenity benefits of the tree
Root protection area:	Noted as m^2 and linear metres from the stem
Priority:	1 =Emergency-work within 8hrs 2= Urgent-within 48hrs 3= Priority-within one week H= High-within 3 months M= Medium-within one year L= Low-subject to budget
Landscape comments:	Tree comments based on the landscape or surroundings
Rating:	Based on BS 5837 trees in Relation to Construction. (2005) A = High quality and value - to be retained B = Moderate value – provide a useful contribution for several years C= Low value provide a useful contribution for a limited time i.e. less than 15 years R = trees whose value will be lost within 10 years.

QUEEN STREET TREE INSPECTION DATA

Date Inspected: 16th and 17th October 2007

Classifications: Size : L large, M medium, S small: Age: Y young, M mature, Over mature: Rating: A high value, B medium value, C low value, R remove: Life Expectancy: H High, M Medium, L Low

	TREE IDENTIFICATION			TREE DATA						HEALTH & SAFETY			LANDSCAPE / PAVEMENT				RPA CALCS			
Asset ID number	Location	Species	Common Name	Tree Height (metres)	Crown Spread	Stem diameter (cm)	Date Inspected	Size class L,M,S	Age class Y, SM, M, O	Comments	Safe useful life expectancy L, M, H	Recommendations	Comments	Rating	STEM valuation	ISA/CTLA Assessment	Tree Diameter mm	RPA Sq Metres	Circle with radius Metres	Maximum Offset Open ground
1	Outside 11	Platanus x acerifolia	London Plane	17	19	43	16/11/07	L	M	The tree shows species typical form and vigour but is growing close to a drain. It suffers from restricted rooting room due to its location close to the road junction. There is evidence of vehicle strike to the undersides of the canopy on the road side.	H	No work currently required	There is little evidence of damage to the pavement.	B	$20,916.56	$6,400.00	430	83.6	5.2	1.0
2	Outside 11	Platanus x acerifolia	London Plane	18	15	46	16/11/07	L	M	The tree shows species typical form and vigour but with minor basal swelling and minor decay in some old pruning wounds. There is evidence of vehicle strike to the undersides of the canopy on the road side.	H	No work currently required	There is little evidence of damage to the pavement.	A	$15,651.56	$7,200.00	460	95.7	5.5	1.1
3	Outside 11	Platanus x acerifolia	London Plane	16	16	42	16/11/07	L	M	The tree shows species typical form and vigour with the crown touching the neighbours tree.	H	No work currently required	There is little evidence of damage to the pavement.	A	$14,774.06	$6,000.00		0.0	0.0	0.0
4	Outside 13	Platanus x acerifolia	London Plane	16	11	42	16/11/07	L	M	The tree shows species typical form and vigour with evidence of vehicle strike to the undersides of the canopy on the road side. A limb has been removed on the roadside giving the tree a one sided crown. The callous growth on the wound is developing well.	H	No work currently required	There is little evidence of damage to the pavement.	A	$15,651.56	$6,000.00	420	79.8	5.0	1.0
5	Outside 15	Platanus x acerifolia	London Plane	15	14	48	16/11/07	L	M	The tree has a thin open crown with evidence of decay in the main stem. There is restricted root space.	M	No work currently required	Minor cracking to drive.	C	$15,651.56	$7,700.00	480	104.2	5.8	1.2
6	Outside 15	Platanus x acerifolia	London Plane	16	9	44	16/11/07	L	M	The tree shows species typical form but low vigour with no significant defects apparent at the time of inspection.	H	No work currently required	There is little evidence of damage to the pavement.	C	$15,651.56	$6,100.00	440	87.6	5.3	1.1
7	Outside 17	Platanus x acerifolia	London Plane	10	6	18	16/11/07	S	SM	The tree shows poor form and major stem damage.	L	Remove and replace	There is little evidence of damage to the pavement	R	$14,774.06	$1,200.00	180	14.7	2.2	0.4
8	Outside 21	Platanus x acerifolia	London Plane	13	14	28	16/11/07	L	M	The tree shows species typical form and vigour with evidence of minor basal swelling and vehicle strike to limbs over the road.	M	No work currently required	There is little evidence of damage to the pavement.	C	$13,896.56	$2,700.00	280	35.5	3.4	0.7
9	Outside 21	Platanus x acerifolia	London Plane	15	14	34	16/11/07	M	M	The tree shows species typical form and vigour with no significant defects apparent at the time of inspection.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.06	$3,600.00	340	52.3	4.1	0.8
10	Outside 25	Platanus x acerifolia	London Plane	16	13	36	16/11/07	M	M	The tree shows species typical form and vigour with no significant defects apparent at the time of inspection.	H	No work currently required	There is evidence of moderate cracking and tarmac lifting in the pavement	B	$14,774.06	$4,600.00	360	58.6	4.3	0.9
11	Outside 25	Platanus x acerifolia	London Plane	14	12	32	16/11/07	M	M	The tree shows species typical form and vigour with evidence of minor decay in main fork. There is also evidence of vehicle strike on the undersides of the limbs on the road side	H	No work currently required	There is minor cracking in the tarmac but bad lifting which is causing a trip hazard. The cracking runs along the line of the pavement as well in the direction of the spread of the roots.	B	$14,774.06	$3,800.00	320	48.3	3.8	0.8
12	Outside 25	Platanus x acerifolia	London Plane	16	11	36	16/11/07	M	M	The tree shows species typical form and vigour with evidence of minor decay in main fork. There is also evidence of vehicle strike on the undersides of the limbs on the road side	H	No work currently required	The cracking and lifting of the tarmac is bad in this area, with cracking round the mail box evident	C	$14,774.06	$4,600.00	360	58.6	4.3	0.9
13	Outside 27	Platanus x acerifolia	London Plane	18	15	51	16/11/07	L	M	The tree shows species typical form and vigour. There is also evidence of vehicle strike on the undersides of the limbs on the road side	H	No work currently required	There is evidence of recent patching of the pavement near the tree and cracking and lifting of the tarmac.	C	$14,774.06	$8,000.00	810	117.7	6.1	1.2

QUEEN STREET TREE INSPECTION DATA

Date inspected: 16th and 17th October 2007

Classifications: Size : L large, M medium, S small: Age: Y young, M mature, Over mature: Rating: A high value, B medium value, C low value, R remove: Life Expectancy: H High, M Medium, L Low

TREE IDENTIFICATION				TREE DATA						HEALTH & SAFETY			LANDSCAPE / PAVEMENT				RPA CALCS			
Asset ID number	Location	Species	Common Name	Tree Height (metres)	Crown Spread	Stem diameter (cm)	Date Inspected	Size class L,M,S	Age class Y, SM, M, O	Comments	Safe useful life expectancy L, M, H	Recommendations	Comments	Rating	STEM valuation	ISA/CTLA Assessment	Tree Diameter mm	RPA Sq Metres	Circle with radius Metres	Maximum Offset Open ground
14	Outside 29	Platanus x acerifolia	London Plane	17	20	47	16/11/07	L	M	The tree shows species typical form and vigour with evidence of minor decay in main fork. There is also evidence of vehicle strike on the undersides of the limbs on the road side	H	No work currently required	There is evidence of services in the tarmac and recent patching on the path	B	$15,851.56	$8,000.00	470	99.9	5.8	1.1
15	Outside 24 Murray Street, Queen Street frontage	Platanus x acerifolia	London Plane	16	17	40	16/11/07			The tree shows species typical form and vigour with evidence of minor decay in main fork. There is also evidence of vehicle strike on the undersides of the limbs on the road side	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.08	$5,500.00	400	72.4	4.8	1.0
16	Outside 33	Platanus x acerifolia	London Plane	16	14	38	16/11/07	M	M	This tree shows species typical form and vigour with no significant defects apparent at the time of inspection.	H	No work currently required	There is evidence of minor cracks in the tarmac and moderate pavement lifting. Evidence of services in	B	$14,774.56	$5,100.00	380	65.3	4.6	0.9
17	Outside 33	Platanus x acerifolia	London Plane	14	11	30	16/11/07	M	M	The tree shows species typical form and vigour with evidence of minor stem damage.	H	No work currently required	There is evidence of minor cracks in the tarmac and moderate pavement lifting.	B	$14,774.56	$3,500.00	300	40.7	3.6	0.7
18	Outside 35	Platanus x acerifolia	London Plane	15	14	38	16/11/07	L	M	The tree shows species typical form and vigour with evidence of vehicle strike to the undersides of the canopy on the road side.	H	No work currently required	Minor pavement cracking with the tarmac lifting over cracks. There area number of cracks running parallel to the road.	B	$14,774.56	$5,100.00	380	65.3	4.6	0.9
19	Outside 37	Platanus x acerifolia	London Plane	19	19	46	16/11/07	L	M	The tree shows species typical form and vigour but is growing close to the road edge and residents drive.	H	No work currently required	Minor pavement cracking with the tarmac lifting over cracks, near to services.	B	$14,774.56	$7,100.00	460	95.7	5.5	1.1
20	Outside 39	Platanus x acerifolia	London Plane	16	11	44	16/11/07	L	M	The tree shows species typical form and vigour but with minor basal damage.	H	No work currently required	Minor pavement cracking with the tarmac lifting over cracks	B	$14,774.56	$6,500.00	440	87.6	5.3	1.1
21	Outside Oakliegh	Platanus x acerifolia	London Plane	18	13	41	16/11/07	L	M	The tree shows species typical form and vigour with no significant defects apparent at the time of inspection.	H	No work currently required	There are a number of cracks in the pavement particularly round the fire hydrant.	B	$14,774.56	$5,900.00	410	76.0	4.9	1.0
22	Outside Oakliegh	Platanus x acerifolia	London Plane	18	13	41	16/11/07			The tree shows species typical form and vigour with no significant defects apparent at the time of inspection.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.56	$5,900.00	410	76.0	4.9	1.0
23	Outside Woolworths supermarket	Platanus x acerifolia	London Plane	17	17	45	16/11/07	L	M	The tree shows species typical form and vigour but with minor basal swelling	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.56	$6,900.00	450	91.6	5.4	1.1
24	Outside Woolworths supermarket	Platanus x acerifolia	London Plane	18	18	45	16/11/07	L	M	The tree shows species typical vigour but with minor basal swelling and poor form due to the removal of the central leader.	H	No work currently required	There is little evidence of damage to the pavement.	C	$14,774.56	$6,900.00	450	91.6	5.4	1.1
25	Outside Woolworths supermarket	Platanus x acerifolia	London Plane	17	17	44	16/11/07	L	M	The tree shows species typical form and vigour with no significant defects apparent at the time of inspection.	H	No work currently required	Evidence of minor pavement cracking	B	$14,774.56	$6,600.00	440	87.6	5.3	1.1
26	Opposite 13	Platanus x acerifolia	London Plane	13	12	34	16/11/07	M	M	The tree shows species typical form and vigour but with minor basal swelling.	H	No work currently required	Evidence of minor pavement cracking which starts on the building side of the pavement	B	$14,774.56	$4,200.00	340	52.3	4.1	0.8
27	Opposite 15	Platanus x acerifolia	London Plane	15	15	40	16/11/07	L	M	The tree shows species typical form and vigour but with minor basal swelling.	H	No work currently required	Evidence of minor pavement cracking	B	$14,774.56	$5,500.00	400	72.4	4.8	1.0
28	Opposite 17	Platanus x acerifolia	London Plane	16	18	42	16/11/07	L	M	The tree shows species typical form and vigour but with minor basal swelling. There is evidence of vehicle strike to the lower limbs on the roadside.	H	No work currently required	The edge of the pavement has been raised but no tarmac cracking apparent.	B	$14,774.56	$6,100.00	420	79.8	5.0	1.0
29	Opposite 18 check	Platanus x acerifolia	London Plane	16	15	48	16/11/07	L	M	The tree shows species typical vigour but poor form due to removal of central leader. There is evidence of minor basal swelling.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.56	$7,200.00	480	95.7	5.5	1.1
30	Outside 130 Percival Street	Platanus x acerifolia	London Plane	15	16	40	16/11/07	L	M	The tree shows species typical form and vigour but with a slight lean towards the road. There is evidence of vehicle strike on the under side of	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.56	$5,800.00	400	72.4	4.8	1.0

QUEEN STREET TREE INSPECTION DATA

Date Inspected: 16th and 17th October 2007

Classifications: Size : L large, M medium, S small: Age: Y young, M mature, Over mature: Rating: A high value, B medium value, C low value, R remove: Life Expectancy: H High, M Medium, L Low

	TREE IDENTIFICATION			TREE DATA						HEALTH & SAFETY			LANDSCAPE / PAVEMENT				RPA CALCS			
Asset ID number	Location	Species	Common Name	Tree Height (metres)	Crown Spread	Stem diameter (cm)	Date Inspected	Size class L,M,S	Age class Y, SM, M, O	Comments	Safe useful life expectancy L, M, H	Recommendations	Comments	Rating	STEM valuation	ISA/CTLA Assessment	Tree Diameter mm	RPA Sq Metres	Circle with radius Metres	Maximum Offset Open ground
31	Opposite 25A Parkside	Platanus x acerifolia	London Plane	12	12	27	16/11/07	M	M	Species typical vigour but poor form as the tree is suppressed by a Plane in Victoria Park.	M	Remove	There is evidence of minor pavement cracking. The tree is one sided and suppressed by the park tree	R	$13,896.56	$1,900.00	270	33.0	3.2	0.6
32	Opposite 25C Parkside	Platanus x acerifolia	London Plane	16	15	35	16/11/07	M	M	The tree shows species typical form and vigour but with a slight lean towards the road. The canopy is slightly one sided due to the Totara in Victoria Park	H	No work currently required	There is little evidence of damage to the pavement.	A	$15,851.56	$5,400.00	350	55.4	4.2	0.8
33	Opposite 25 check	Platanus x acerifolia	London Plane	15	10	27	16/11/07	M	M	Species typical vigour but poor form as the tree is suppressed by a Cedar in Victoria Park. There is evidence of compaction and erosion around the base of the tree.	M	Removal	There is evidence of minor pavement cracking. The tree is one sided and suppressed by the park tree.	R	$13,896.56	$1,900.00	270	33.0	3.2	0.6
34	Opposite 27	Platanus x acerifolia	London Plane	14	13	27	16/11/07	M	M	Species typical vigour but poor form as the tree is suppressed by an Oak in Victoria Park. There is evidence of compaction and erosion around the base of the tree.	M	Removal	The tree is one sided and suppressed by the park tree.	R	$13,896.56	$2,300.00	270	33.0	3.2	0.6
35	Opposite 29	Platanus x acerifolia	London Plane	15	13	29	16/11/07	M	M	Species typical vigour but poor form as the tree is suppressed by a Poplar in Victoria Park. There is evidence of compaction and erosion around the base of the tree.	M	Removal	There is evidence of major pavement cracking most likely due to Poplar in Victoria Park	R	$13,896.56	$3,300.00	290	38.0	3.5	0.7
36	Opposite 24 Murray Street	Platanus x acerifolia	London Plane	12	10	24	16/11/07	M	M	Species typical vigour but poor form as the tree is suppressed by various trees in Victoria Park. There is evidence of compaction and erosion around the base of the tree.	M	Removal	The tree is one sided and suppressed by the park tree.	R	$13,896.56	$2,000.00	240	26.1	2.9	0.6
37	Outside 36	Platanus x acerifolia	London Plane	17	13	39	16/11/07	L	M	The tree shows species typical form and vigour with some minor branch damage over the drive to #36. The rooting area is restricted due to some concrete in berm.	H	No work currently required	The pavement is showing evidence of cracking due to the roots from the residents tree.	B	$14,774.06	$5,300.00	390	58.8	4.7	0.9
38	Outside 36	Platanus x acerifolia	London Plane	18	15	44	16/11/07	L	M	The tree shows species typical form and vigour and is growing close to the residents tree. There is evidence of minor compaction on the berm.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.06	$6,600.00	440	87.6	5.3	1.1
39	Outside 38	Platanus x acerifolia	London Plane	18	18	50	16/11/07	L	M	The tree shows species typical form and vigour but there is some decay in the old pollard points.	M	No work currently required	There is evidence of pavement cracking which may be due to the placement of the drain. There is evidence of a recent patch on the pavement.	R	$13,896.56	$6,600.00	500	113.1	6.0	1.2
40	Outside 40	Platanus x acerifolia	London Plane	15	11	33	16/11/07	M	M	The tree shows species typical form and vigour. There is evidence of erosion and compaction around the base of the tree.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.06	$4,000.00	330	49.3	4.0	0.8
41	Opposite 41	Platanus x acerifolia	London Plane	18	19	46	16/11/07	L	M	The tree shows species typical form and vigour. There is evidence of erosion and compaction around the base of the tree.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.06	$6,700.00	450	91.6	5.4	1.1
42	Opposite Oakfegh	Platanus x acerifolia	London Plane	18	19	45	16/11/07	L	M	The tree shows species typical form and vigour. This area of pavement has recently been patched.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.06	$6,700.00	450	91.6	5.4	1.1
43	Junction of Queen Street and King Street	Platanus x acerifolia	London Plane	18	14	44	16/11/07	L	M	The tree shows species typical form and vigour. There is evidence of erosion and compaction around the base of the tree.	H	No work currently required	There is little evidence of damage to the pavement.	B	$14,774.06	$6,600.00	440	87.6	5.3	1.1
													Total		$640,557.08	$228,800.00	0	0.0	0.0	0.0

RPA Calculation

For a single stem the root protection area is 12 times the diameter of the stem measured at 1.5m above ground i.e.

RPA (m^2) = (stem diameter (mm)@1.4 x 12)^2 / 1000 X 3.142

For a tree with more than one stem arising below 1.5m above ground.

RPA (m^2) = (basal diameter (mm) [measured immediately above root flare] x 10)^2 / 1000 X 3.142

The area calculated is the minimum area around each tree which should be left undisturbed around each retained tree. Definitions based on BS: 5837 2005. *Trees in Relation to Construction*

Amsterdam Tree Soil

Amsterdam soil is a compactable mix which is made up as required from locally sourced materials. Amsterdam soil allows a wider overlap between pavement and tree the planting pit in built up areas as it is a compactable substrate which still allows the tree roots to respire by creating air spaces in the soil.

This is a soil mix developed in Amsterdam in the 1970s and is a mixture of sand and organic matter (4-5% by weight) and clay (2-4%). The sand is medium coarse free from salts with a median size of 220μm with a relatively uniform distribution of size particles as specified by a D60/D10 ratio of >2.5 giving a low content of fine particles. Organic matter content must not exceed 5% to prevent excessive settling after compaction.

The components are then blended in a heavy duty mixer and installed to a depth of no greater than 1m and compacted. The mix should be compacted to 1.5 – 2.0 MPa.

11 November 2007

London Plane; Wikipedia

London Plane seed ball

Scientific classification.

Kingdom:	Plantae
Division:	Magnoliophyta
Class:	Magnoliopsida
Order:	Proteales
Family:	Platanaceae
Genus:	Platanus
Species:	Plantnus x acerifolia
Binomial name:	Platanus x acerifolia (Muenchh)

The **London Plane** or **Hybrid Plane** (***Platanus* × *hispanica***, synonym *Platanus* × *acerifolia*) is a tree in the genus *Platanus*. It is usually thought to be a hybrid of the Oriental Plane *P. orientalis* with the American Plane (American sycamore) *P. occidentalis*. Some authorities think that it may be a cultivar of *P. orientalis*, but there is little evidence for this.

Description

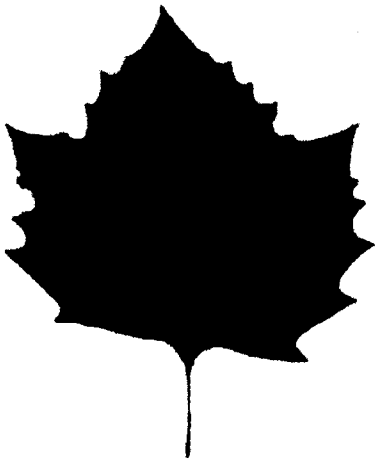
London Plane in NMSU

It is a large deciduous tree growing to 20-35 m (exceptionally over 40 m) tall, with a trunk up to 3 m or more in diameter. The bark is usually pale grey-green, smooth and exfoliating, or buff-brown and not exfoliating. The leaves are thick and stiff-textured, broad, palmately lobed, superficially maple-like, the leaf

blade 10-20 cm long and 12-25 cm broad, with a petiole 3-10 cm long. The young leaves in spring are coated with minute, fine, stiff hairs at first, but these wear off and by late summer the leaves are hairless or nearly so. The flowers are borne in one to three (most often two) dense spherical inflorescences on a pendulous stem, with male and female flowers on separate stems. The fruit matures in about 6 months, to 2-3 cm diameter, and comprises a dense spherical cluster of achenes with numerous stiff hairs which aid wind dispersal; the cluster breaks up slowly over the winter to release the numerous 2-3 mm seeds.

Origin

It was first recorded as occurring in Spain in the 17th century, where the Oriental Plane and the American Plane had been planted in proximity to one another.



Scan of London Plane leaf in northern Florida

The leaf and flower characteristics are intermediate between the two parent species, the leaf being more deeply lobed than *P. occidentalis* but less so than *P. orientalis*, and the seed balls typically two per stem (one in *P. occidentalis*, 3-6 in *P. orientalis*). The hybrid is fertile, and seedlings are occasionally found near mature trees.

Controlled reciprocal pollinations between Platanus occidentalis and P. orientalis resulted in good yields of germinable seed and true hybrid seedlings. Crosses of both species, as females, with P. racemosa and P. wrightii produced extremely low yields of germinable seed, but true hybrids were obtained from all interspecific combinations. Apomixis (asexual reproduction from non-fertilized seeds) appeared common in P. orientalis [1].

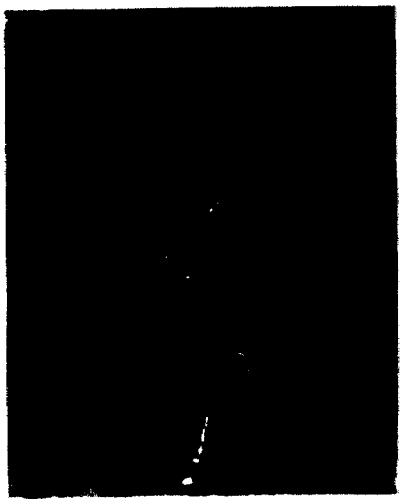
In 1968 and 1970, Frank S. Santamour, Jr., recreated the P. orientalis, P. occidentalis cross using a P. orientalis of Turkish origin with American sycamores (P. occidentalis). The offspring were evaluated following several years of exposure to anthracnose infection. Two selections 'Columbia' and 'Liberty' were released in August, 1984. [1 & 4].

11 November 2007

Usage

London Plane (*Platanus* × *hispanica*)

It is very tolerant of atmospheric pollution and root compaction, and for this reason it is a popular urban roadside tree. It is now extensively cultivated in most temperate latitudes as an ornamental and parkland tree, and is a commonly planted tree in cities throughout the temperate regions of the world, not just London but Buenos Aires, New York City, Paris, Madrid, Melbourne, Shanghai and many others. It has a greater degree of winter cold tolerance than the Oriental Plane, and is less susceptible to anthracnose disease than the American Plane. The seeds are used as a food source by some finches and squirrels.



A finch eating London Plane seeds in Seattle

The tree is fairly wind-resistant. However, it has a number of problems in urban use, most notably the short, stiff hairs shed by the young leaves and the dispersing seeds; these are an irritant if breathed in, and can exacerbate breathing difficulties for people with asthma. The large leaves can create a disposal problem in cities. These leaves are tough and sometimes can take more than one year to break down if they remain whole.

The leaf of the London Plane is the symbol of the New York City Department of Parks and Recreation,, and is prominently featured on signs and buildings in public parks across the city. Ironically the tree is today on the NYC Parks Department's list of restricted use trees for street tree planting.

11 November 2007

London Planes are often pruned by a technique called pollarding. A pollarded tree has a drastically different appearance than an un-pruned tree, being much shorter with stunted, club-like branches. Although pollarding requires frequent maintenance (the trees must usually be re-pruned every year), it creates a distinctive shape that is often sought after in plazas, main streets, and other urban areas.

Queens Street		Tree 1			
ISA Tree valuation calculation (diam less than 75cms)					
	Species rating	70.00%			
	Condition	70.00%			
	Location	75.00%			
	Tree diameter	43.00			
Replacement cost: Largest transplantable tree	$1,350.00				
Basic price: of replacement tree					
A wholesale, retail or installed cost	$130.00				
B replacement tree Trunk area (TA_R)	12.34				
Divide cost by **TA_R**	10.53				
Tree diameter	43.00				
TA_A	1451.465				
B replacement tree Trunk area (TA_R)	12.34				
Subtract TA_R from TA_A	1439.125				
Multiply by **Basic price**	15290.96				
Multiply by **Species rating**	10703.67				
Add **Replacement cost**	12053.67				
Multiply by **Condition**	8437.571				
Multiply by **Location**	6328.178				
APPRAISED LOCATION	$6,400.00				

STEM Assessment - Queens Street

Tree Ref Number: 1

Tree Common Name:
London Plane

Species:
Platanus x acerifolia

Location:
Queen St Rangiora

Additional Comments:

Condition	Points
form	9
occurrence	15
vigour vitality	15
function	9
age	21
Condition total	69
Amenity	
stature	15
visibility	3
proximity	21
role	15
climate	3
Amenity total	57
Notability	
stature feature	
stature form	
historic	
age	
association	
commemoration	
remnant	
relict	
scientific source	
scientific rarity	
scientific endangered	
amenity total	0
Total points	126
original tree age	60
new tree age	5
Age difference	55
tree cost	$130.00
points	126
Unit tree cost	$16,380.00
site prep	0
transport	0
planting	150
Planting unit cost	$150.00
maintenance per yr	37.5
age difference	55
Maintenance cost	$2,062.50
Sub total	$18,592.50
gst	$2,324.06
Total	$20,916.56

Attachment vi

Iain Mackinnon *Dip Arb. Dip For*
Cell Phone 021 223 4403

E-mail:
arconz@farmside.co.nz

Tree Report, Queen Street, Rangiora.

For: Waimakariri District Council
Date: May 2010

26-May-2010

Client Address:	Parks and Recreation, Waimakariri District Council Private Bag 1005 Rangiora 7440
Site Address:	Queen Street Rangiora
Attention:	Russel Wedge, Parks and Recreation Manager
Dated:	May 2010
Prepared for:	Treetech Specialist Treecare Ltd
Prepared by:	Arboricultural Consultancy NZ Ltd
Arborist:	I. MacKinnon. Dip Arb: Dip For
Cell phone:	021 223 4403
Status	Final
Our Ref:	mackinnon/ARCONZ/01002/2010

26-May-2010

Contents

Arboricultural Consultancy NZ LTD
PO Box 35308
Christchurch
Cell: 021 223 4403

1.0 Project brief

The following tree report has been commissioned by Tony Pye, Operations Manager, Treetech Specialist Treecare Ltd on behalf of Waimakariri District Council.

Prepare answers to the questions posed by Russel Wedge, Parks and Recreation Manager, Waimakariri DC, in an e-mail dated 14 May 2010.

2.0 Recommendations

The trees should be pruned to give at least 2m clearance to the overhead street lights and to the resident's houses. This work should be undertaken as soon as practicable.

2.1 Option 1 as per the existing Treetech tree maintenance contract

The trees should have the crowns pruned in such a way as to reduce the spread of the branches but not to encourage vigorous re-growth. The trees should then be kept at this width and shape by periodic pruning.

This would require a regular pruning cycle of 3 to 5 years. The trees received their last full maintenance prune in 2007 and are due for the next prune during the winter of 2010.

A phased felling and replacement programme should be put in place. For example, trees 17 and 27 (both in poor condition) could be removed and replaced, in the winter of 2010. The replacement trees should be large nursery stock.

2.2 Option 2

Crown reduction to lower the height of the trees, thin the crown as well as reducing the width of the trees. A regular maintenance programme should then be put in place to keep the trees in this form.

The trees could be crown reduced to a maximum of 30%. This process would take place over several years and would reduce the height and spread of the crown as well as thinning the crown. The thinning process would be less of a shock to the tree's metabolism and less likely to kill the trees.

The crown reduction maintenance cycle runs every other year for the first 4 years then every 3 to 5 years after this to keep the trees to the desired size and shape.

This option would be time consuming and expensive and lock WDC into an ongoing pruning regime for the life of the trees. A phased felling and replacement programme should be put in place.

2.3 Option 3

Pollard the mature Planes in Queen Street. This is the least favoured option as it will provide the least satisfactory results and in addition is the most costly and labour intensive option.

As a general rule, mature Plane trees do not take well to pollarding and the risk of tree death is high.

A mature tree has achieved a balance between root and shoot and the act of pollarding will upset this balance. One of the main issues is that the roots will still continue to produce a growth stimulant but the growth retardant is produced in the tips of the growing shoots. The result of this imbalance is a very rapid growth rate which produces long growth and large leaves for several years until the tree is once again in balance. However, pollarding will have to take place once per season due to the rapid growth of the new shoots which means that the tree never fully regains its original balance.

3.0 Briefly (really as background info) health of the trees

A walk over inspection was conducted on the morning of 24th May 2010 and it was concluded that the general health and condition of the trees is species typical, bearing in mind their location i.e. they are suffering from typical stresses imposed by being located in a street situation, for example reduced rooting space and a lack of nutrients in the poor street soil.

However, one tree on the north side has been damaged by a recent building fire. There is one tree on the south side which is in very poor condition and almost dead.

3.1 Comment

The trees in general showed average form and vigour with few structural faults. They provide a high level of amenity to both the immediate area and the town of Rangiora as a whole.

Based on the comments received during the survey many residents will be interested in the development of the street so public consultation will be valuable to ensure that residents have a chance to express their views. I believe that these trees will become more of an asset as they develop and they will form a "monumental" style avenue in the future. The two Planes planted in Victoria Park are examples of what they will become in 50 years or so. (See photograph 1 on page 7.) Trees the size of those in Victoria Park are likely to be too large as street trees in this situation so it is important that a phased removal and replacement policy is put in place to remove trees now to allow space for development of the remaining trees and to ensure that Queens Street retains its identity. A phased removal policy should remove an agreed percentage of trees in the street at an agreed rate e.g. 5% in phase 1; 5% in phase 2, 5 years later etc. The objective is to retain the cover provided by the trees but to provide an irregular age class structure to the street. This will loose the more traditional avenue feel to the area but still retain trees which are large but not overpowering. There are generally three to five years between each phase of removal.

There was evidence that many of the trees had recently been maintained to remove dead wood etc (winter 2007). This is reflected in the low number of trees requiring work. There is evidence of vehicle strike to the underside of the canopy on the road side on several trees. The trees are due for their next full maintenance prune this winter, 2010.

Path damage appears to be associated with repair or installation work on the footpath, the majority of which is to be found on the south side of the street. This has most likely occurred as a result of soil disturbance which has reduced the compaction of the sub-surface material making it more hospitable to the trees roots.

The main area of the damage caused by the roots is to be found on the south side of the street between Murray Street and Percival Street. The damage here is primarily radial cracking from the base of the trees. There is also evidence of cracking parallel to the road. There are several areas where the surface has been forced up and is now causing a trip hazard. This area of damage coincides with the most recent construction on the south side and the areas of

civil engineering activity. There appears to be areas of patching and areas where new services have been laid.

1 	Frame 1 to the left shows a view of the London Plane in Victoria Park. The tree is located in the south east corner of the park close to Percival Street. The photograph was taken looking from the north west. It is likely that this tree is 50 years or so older than the trees in the street but is considerably larger due to the better growing conditions and the fact that the street trees have been regularly pruned.

4.0 Why we don't pollard the trees, also include a picture of what a pollarded tree looks like and what happens to the new growth when pollarded.

4.1 Definition

A tree pollard could be defined as a tree which has had its crown structure removed to leave only a trunk and perhaps a few stubs with the aim to generate new fresh shoots and ultimately a new branch structure.

4.2 Description

Pollarding along with coppicing is a traditional form of tree management to enable the owner to harvest foliage or branches on a regular cycle. These rural trees are cut on a cycle of between 10 and 40 years, depending on the size of produce required. The trees were cut high off the ground to prevent browsing by stock. Pollards were often grown on field or property boundaries as boundary markers or to help travellers find their way. Pollards were very effective as way markers due to their often strange and un-natural appearance.

4.3 Problems

Decay is the main problem associated with any type of pruning: this is particularly true with pollarding.

As soon as the branch is cut, the exposed end becomes dysfunctional and dries out as the tree has no further use for this area of tissue. As the cut surface dries out, it is colonised by a variety of pathogens and the cycle of decay begins. At the same time, a number of dormant buds are activated and the cambium differentiates to develop callous but also secondary shoots. As a result, branches begin to develop at this point. The shoots develop around the edge of the cut and are poorly attached. These shoots grow rapidly and produce large leaves as the tree needs the additional energy to replace the lost leaf cover and to repair the wound caused by the pruning.

One of the basic rules of pruning states that "removal of larger amounts of wood causes very vigorous re-growth".

These buds develop into branches with poor attachments and are prone to failure due to decay in the cut area of the branch. These newly developed branches grow and surround the decayed area. This often leads to the decay breaking out of side of the stem which leads to an open cavity. (See photograph on page 5.)

As a result of this, urban or street tree pollards require regular and expensive maintenance, with pruning being carried out every 1 to 5 years by a skilled and experienced crew. The pruning cycle would vary with a number of factors, for example, it is poor practice to prune pollards during or following a drought year.

2

3

The photographs above show a Plane Tree in Christchurch. Frame 2 is a general view of the tree showing the pruning points about 2.5m above ground. Frame 3 is a closer view of the "knuckles" and shows an area of decay which has broken through the side of the branch.

4 	Frame 4 shows a view of a recently pollarded Lime in the UK. The amount of growth suggests that this is the second winter since pollarding. It is likely that this tree was planted specifically to be pollarded and has been maintained as a pollard this since planting. Photograph taken from : http://www.passionfortrees.co.uk/source/jpg_s/pollard_1.jpg

4.4 Why is pollarding not generally used in modern arboriculture?

Pollarding mature trees is generally considered to produce an unsightly tree.

New pollarding on large mature trees has the same effect as topping, which is damaging to trees.

The regular maintenance is costly and time consuming and generally produces a tree of poor form.

The new cuts will produce multiple shoots which in turn produce a large number of larger than normal leaves which can be a nuisance in an urban situation. (This leaf and shoot

production is due to reduced hormone production in the shoots but normal hormone production in the roots. The tree's natural system is out of balance.)

The new shoots are poorly attached and are liable to failure.

Generally, mature Plane trees do not take pollarding well.

5 	Frame 5 shows a mature tree pollarded for the first time. Note the intermodal pruning cuts. Photograph taken from: http://phynbarr.files.wordpress.com/2009/03/pollarded_tree.jpg

5.0 If the trees could be reduced in height and if so by how much, or if this would affect the growth /health of the trees if this did occur? Could or should they be pruned every year and what would happen to the health growth of the trees if this did occur

The trees could be reduced by as much as 30%. This reduction in height should take place in a series of pruning operations to reduce the chances of any of the trees dying. Incremental crown reduction would not seriously compromise the trees health and vitality.

Subject to careful professional pruning, the trees should not require yearly work to reduce the height of the crown. It is important that the trees are pruned in such a way as to create a balanced and compact crown which will lend itself to pruning over the following seasons to achieve the goals agreed at the outset.

Regular yearly pruning should not be necessary if the trees are professionally pruned from the start. Yearly pruning would be time consuming, expensive and not be in the trees best interest.

6.0 If the width of the trees could be reduced – some residents say the branches almost touch the houses. If the trees could be pruned away from the street lights, residents say the street very is dark.

Lateral crown reduction is possible and recommended to allow greater light into adjacent homes. The crowns should give 2m clearance to any street light. The same caveats apply to lateral reduction as to lowering the crown.

7.0 Could a pruning /maintenance programme be put in place for the trees and could you discuss what work this would cover and how often.

After the agreed size and shape has been achieved, a maintenance programme could easily be developed to ensure the trees do not exceed the agreed distances. It is likely the trees will require pruning every third to fifth year.

8.0 Definitions

8.1.1 Pruning General

- Each tree shall be considered individually and the work specified is to be interpreted in relation to the shape, size, species, condition and previous management of each tree. All operations carried out will leave each tree with a pleasing and well-balanced appearance, compatible with safety.
- All pruning cuts will be made with due regard to the branch bark ridge and branch collar, all cuts will be made to leave them intact whilst not leaving a stub.
- The final cut wound surface shall be smooth and sound, the cut being executed in one continuous operation. Surrounding tissue should not be damaged during any part of the operation.
- Branches up to 50 mm in diameter shall not be pruned with a chain saw. Handsaws, pole saws/pruners, secateurs and long handled pruners shall be used for this purpose.
- Climbing irons shall not be used for any operation except felling or at the discretion of the Employer.

8.1.2 Crown Reduction (CR)

- The operation shall be expressed as a percentage reduction of the trees crown size.
- The complete outline dimensions of the crown shall be reduced from the tip of the leader and other limbs and branches to the main stem by pruning growth to an acceptable branch, twig or bud to retain a flowing branch line.
- Crown reduction shall retain an overall appearance typical for the species or variety of tree. Crown reduction is a matter of judicious pruning and should not be construed as topping or lopping.

8.1.3 Crown thinning (CT)

- Removal of a specified percentage of the branches throughout the crown to produce an even canopy of foliage on a well structured, balanced and sound skeleton of major and secondary limbs, typical of the tree species.
- The thinning operation will include the removal of small, live secondary growth, whole branches, weak, damaged, dead, crossing and duplicated limbs, back to the main branch, limb or trunk to give a natural appearance.
- Where trees have been previously pollarded or crown reduced, the main branch network shall be selectively thinned so as to give a balanced and natural appearance to the tree as far as possible.

Attachment v ii

WAIMAKARIRI DISTRICT COUNCIL

REPORT

FILE NO:	WAB-02-05, RES-01-10 / 100527017961
REPORT TO:	Rangiora Ward Advisory Board
DATE OF MEETING:	9 June 2010
FROM:	Russel Wedge, Parks & Recreation Manager
SUBJECT:	Maintenance of Plane Trees on Queen Street, Rangiora

SIGNED BY: (for Reports to Council or Committees)	Department Manager	Chief Executive

1 SUMMARY

1.1 The purpose of this report is to seek the support of the Rangiora Ward Advisory Board to continue with the scheduled maintenance of the Plane trees on Queen Street.

1.2 At the Rangiora Ward Advisory Board meeting of 12 May 2010, the Board requested the Parks and Recreation staff to investigate the possibility of pruning the Plane trees on Queen Street after several residents complained of the height, width and density of the foliage on the trees.

1.3 The Plane trees in Queen Street were extensively pruned in 2007 and are scheduled for another extensive maintenance prune in the winter 2010. Some of the Plane trees have received additional maintenance pruning since 2007 due to Service Requests. All the street trees in the main towns are on a scheduled maintenance programme and the Plane trees in Queen Street should be pruned every 3 – 5 years.

Attachments:

i. Treetech Ltd Tree Report, Queen Street, Rangiora, No. 100527017912

2 RECOMMENDATION

THAT the Rangiora Ward Advisory Board:

(a) **Receives** report N° 100527017961

(b) **Supports** the scheduled maintenance prune (Option 1) for the Plane trees on Queen Street as proposed in the Treetech Ltd Tree Report, Queen Street (100527017912).

(c) **Notes** the Plane trees on Queen Street are due for their schedule maintenance prune this winter, 2010.

(d) **Notes** any tree branches will be cleared away from the street lights or residential properties during the maintenance prune.

(e) **Notes** a stage replacement programme for the Plane trees will be implemented with tree No. 17 and 27 removed, and replaced 2010 with the same variety of Plane tree.

3 ISSUES AND OPTIONS

3.1 The Plane trees growing as street trees on Queen Street are approximately 50 years old and form a mature canopy along the street. As the trees have matured they have created some issues for

the residents along the street, such as shading of some residential properties and leaf fall in the autumn.

3.2 At the last Ward Advisory Board meeting some residents presented a deputation to the Board, asking if the trees could be reduced in height and width as they were causing excessive shading during this time of year and the number of leaves falling into their properties was problematic to them. The residents also expressed their concerns that the trees were blocking the street lights causing shading to the footpath and some branches were very close to residential properties. The Board requested the Parks and Recreation Staff to prepare a report for the next Board meeting on the trees issues raised.

3.3 The Plane trees received an extensive maintenance prune in 2007 and are scheduled to be pruned again this winter in 2010. Treetech Ltd who have the tree maintenance contract with the Council have a rolling pruning programme for all the street trees in the main towns. The Plane trees require a regular prune every 3 – 5 years depending upon how extensive the previous prune has been. The maintenance prune would reduce the height of some branches and clear branches away from street lights, residential properties and lift any branches that may be too low causing problems to trucks.

3.4 The maintenance prune undertaken in 2007 appears to have alleviated the residents concerns for shading of properties as the Council did not receive any complaints after the trees were pruned. Additional leaf street sweeping has also been implemented in the last couple of years to assist with the removal of the leaves falling in the autumn.

3.5 Treetech Ltd has provided 3 Options in their report for maintaining the Plane trees in Queen Street. A brief summary of the options are:

a. Option 1 is to continue maintaining the trees on a 3 – 5 year schedule, which reduces the spread and some height reduction of the trees without encouraging vigorous re-growth. Branches growing around the street lights, and close to residential properties would be removed.

b. Option 2 is to undertake a more intensive pruning programme for the trees by reducing the height of all the branches and width of the tree as well as thinning the crown growth. This option is very time consuming and expensive as the arborists will need to spend considerable time on each tree and continue the intensive pruning for every second year over a 4 year period.

c. Option 3 is to pollard the mature Plane trees. The Parks and Recreation staff do not consider this is an option as it affects the health of the tree, makes the tree susceptible to disease and rot, and creates an imbalance of very rapid growth, producing larger leaves than normal. In the 1980s the trees in Queen Street used to be pollarded, as this was the standard practice at the time.

3.5 The Parks and Recreation staff recommend Option 1 as the trees are due for their scheduled maintenance prune this winter (2010) and this will elevate the concerns raised by the residents. The staff can request the tree contractors monitor the growth of the trees in the future to ensure the scheduled maintenance prune occurs every 3 rather than 5 years, if required.

3.6 The Treetech Ltd report also recommends that a stage removal and replacement of the Plane trees in Queen Street is implemented. The report recommends that 2 trees are removed every 5 years and replanted with a large Plane tree specimen. The gradual replacement of the trees would ensure the iconic look of the street would not be changed. The mature trees are growing in a very soil restricted environment which is affecting the longevity of the trees. A managed replacement programme for the trees ensures the character of the street is not compromised by having to remove the majority of the trees all at once. Two trees (tree No.s 17 & 27) will be removed this year 2010 as they are both in poor condition. They will be replaced with large nursery Plane trees.

3.7 The Management Team/CEO has reviewed this report and supports the recommendations.

(b) COMMUNITY VIEWS

a. Requests from the community for projects that fit within the above criteria have been included in the project table for discussion at the Ward Advisory Board meeting.

(c) FINANCIAL IMPLICATIONS AND RISKS

a. There are funds within the operational Parks and Recreation budget (2010/11) for the scheduled maintenance prune of the Plane trees on Queen Street, as stated in Option 1. This will also include the removal and replanting of two mature Plane trees.

b. To proceed with Option 2, the more intensive pruning of the Plane trees, additional operational budget would be required as there are insufficient funds in either this financial year (2009/10) or next financial year (2010/11) to implement this option. To implement Option 2 will require approximately 3 – 4 times the resources (skilled arborists, equipment and time) than the scheduled maintenance prune in Option 1.

(d) CONTEXT

a. Policy

This matter is not a matter of significance in terms of the Council's Significance Policy.

b. Legislation – N/A.

(e) COMMUNITY OUTCOMES

a. The provision of parks and reserves and sports grounds contributes to a range of community outcomes, including that:

- Public spaces and facilities will be accessible and of a high standard
- The distinctive character of our towns, villages and rural areas is maintained
- There is a safe environment for all.

Russel Wedge
Parks & Recreation Manager

Our Reference: CPR-04-25-01 / 130930083687

1 October 2013

[redacted]

Dear Mr and Mrs Hill

Thank you for your detailed letter regarding the London Plane street trees in Queen Street, Rangiora.

The Council has suffered a significant amount of tree damage as a result of the recent North West winds. Large numbers of street trees and parks trees have been affected. Relative to other areas in the district the damage to the trees in Queen Street is considered minor. While the dangerous fallen branches have been removed it is likely that Council Arborist's will have to return to undertake some clean-up work in Queen Street. This is not likely to be completed for at least 3-6 months as the Arborist's continue to deal with health and safety related tree issues.

In March 2012 a report outlining the issues you have raised in your letter was presented to the Rangiora Community Board. The minutes indicated that you along with Mr Avent attended and spoke at that meeting. I have attached the report for your information. As part of preparing the report Council staff consulted with Queen Street residents. The outcome from the meeitng was that staff would continue with the current tree maintenance programme. This resolution meant that the Board was not in favour of the staged removal of any of the trees along Queen Street. Please see below for the exact wording of the resolution.

Moved J Gerard Seconded G Miller

THAT the Rangiora Community Board:

(a) **Receives** report No. 120306011853.

(b) **Notes** that maintenance of the trees in line with the current contract has been undertaken on three separate occasions this financial year.

(c) **Approves** staff continuing with the current tree maintenance programme for the Queen Street trees.

(d) **Requests** staff to circulate the 2010 Arborist's report to all residents of Queen Street.

In your letter you ask why the recommendations of a previous community board have not been implemented. The Council has delegated decisions in respect of Street Trees to community boards, and therefore, without rescinding this delegation, the authority rests with the community board.

The effect of the March 2012 community board resolution is what the staff must give effect to. A community board has the ability to reconsider any decisions it has previously made.
The information you have provided in your recent letter does not provide any further information or detail that was not already considered by the board at its meeting in March 2012. Therefore, at this time, staff believe the Community Board does not need to reconsider the matter.

If you have any questions about the information contained within the March 2012 Rangiora Community Board report or the resolution above then please call Council's Community Green Space Manager, Chris Brown on (03) 3118900.

Yours sincerely

Jim Palmer
CHIEF EXECUTIVE

120306011853[v2]
GOV-26-02-06

TRIM Record Number

WAIMAKARIRI DISTRICT COUNCI

REPORT

FILE NO:	GOV-26-02-06, CPR-04-25-01 / 120306011853
REPORT TO:	Rangiora Community Board
DATE OF MEETING:	14 March 2012
FROM:	Chris Brown - Community Green Space Manager
SUBJECT:	Queen Street Trees
SIGNED BY: (for Reports to Council or Committees)	Department Manager / Chief Executive

1. SUMMARY

1.1. The purpose of this report is to provide the board with an update regarding the Queen Street London Plane trees and request a mandate to proceed with further consultation regarding their continued management.

1.2. This report gives a brief history of the Queen Street trees and identifies past decisions which have been made regarding their maintenance and management. The report identifies the current community views collected from the residents in Queen Street and recommends that staff form a working party with two members of the board to undertake further consultation.

1.3. Staff have received complaints regarding leaf fall and shading caused by the trees in Queen Street and have had the trees pruned the trees as much as practicable.

Attachments:

i. Queen Street Consultation survey
ii. Queen Street Consultation feedback
iii. 1996 Services Committee report
iv. 1996 Treescape report
v. 2007 Treetech report
vi. 2010 Treetech report
vii. 2010 Rangiora Ward Advisory Board Repor

Need to include attachments

2. RECOMMENDATION

THAT the Rangiora Community Board:

(a) **Receives** report No. 120306011853.

(b) **Notes** that maintenance of the tre undertaken on three separate occasi

(c) **Approves** staff continuing with the cur... Street trees.

n

OR

Photo showing the size of the London Plane trees in 1993 - from 11 Queen Street Rangiora.
The building to the north is the Rangiora Baptist Church which was demolished to allow for the construction of Countdown supermarket.

London Plane trees, showing their height above
11 Queen Street, a two storied house.
Photo taken from Victoria Street.

A view along Queen Street taken from the Victoria Street intersection on a summer morning in 2013

Tree damage following a nor westerly early in 2013.

Queen Street
Rangiora

Tree damage following the norwester early in 2013.

Queen Street
Rangiora.

Waimakariri District Council (WDC)

TripStop trial

Queen Street Rangiora

Sicon Ltd (Sicon) are the roading maintenance provider for WDC, and as such conduct maintenance activities within the road reserve. A particular stretch of footpath in Rangiora was generating an increasing amount of work in order to maintain it, surface cracking was evident which increased the risk of tripping to both the public and WDC.

The issue:

Trees (London Plane) had been planted very close to both the road reserve and footpath, which has resulted in continual tree root movement. These trees have been allowed to mature and the consequent enlarged root movement has created cracking and differential settlement in the AC footpath generating trip hazards. The trip hazards have in turn increased the likelihood of a member of the public getting injured.

The adjacent section along the street had been resurfaced two years ago and already has evidence of tree root radial cracking in the surface of the footpath. This increased the number of maintenance activities, costs and public inconvenience needed in crack repairs.

Options:

The following were options considered by WDC/Sicon:

- Do nothing and accept the increase in Service Requests (SRs), then run the risk of the public being injured due to tripping on the footpath.
- Continue with the current methodology and possibly have to conduct maintenance activities in order to fill cracks as and when they appear.
- Investigate new options available that may reduce future maintenance costs.

After reading the case studies coming out of Australia, TripStop was identified as a possible option to extend the time period between maintenance activities. TripStop has been designed to act as a hinge in the footpath, which allows for earth and tree root movements to occur without damaging the surface of the footpath.

This particular section of footpath in Queen Street Rangiora was chosen for a trial due to the significant tree root damage. The WDC Greenspace team were consulted and their Arborist created a methodology for Sicon to follow when working around trees. In following this methodology Sicon found issues that would have severely restricted their operating procedures. Therefore a site meeting was held Sicon in order to find an acceptable methodology.

After completing the trial, Sicon reviewed their ‘Green Pages’ (Standard Operating Procedures) in order to capture the learnings and apply them to all aspects future footpath construction around trees.

Below are a number of photos that show the state of the footpath before, during and after the work.

Waimakariri District Council (WDC)

TripStop trial

Before photos:





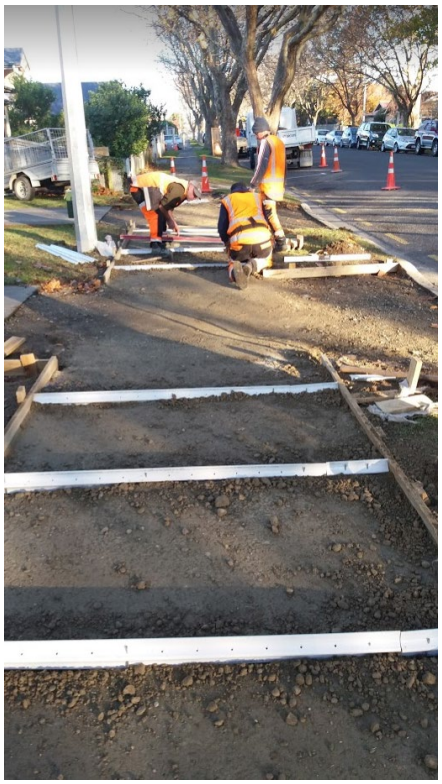

Waimakariri District Council (WDC)

TripStop trial

During photos:








Notes: Tree roots were trimmed by the WDC Arborist as required,

- earth around the sides and top of the roots were replaced with sand to allow for movement
- footpath was boxed up
- filter cloth and bidim were used to redirect any new roots away from the footpath

Waimakariri District Council (WDC)

TripStop trial

- 100mm of metal was then compacted as per the Sicon 'Green Pages'
- TripStop was then placed at 1m centres to ensure best maximum effectiveness was achieved.
- Concrete was then poured ensuring that TripStops were not covered over, leaving a brushed finish textured surface.

During photos:






Waimakariri District Council (WDC)

TripStop trial

Driveway Notes: Due to the height of some of the tree roots and the low alignment of the driveways it was not practical to raise the driveways due to the need to maintain positive drainage towards the road. Concrete was not continued throughout as WDC require an AC surface

After photo:

Lessons learned:

Time - As this was the first time our crews have used the product, time was an issue. Our crews spent a considerable period of time exposing tree roots for the Arborist so that they could decide which roots would be trimmed.

Cost – Labour costs were a significant factor on this site, mainly for the reasons previously identified.

Options moving forward – Unless the tree roots were identified as creating significant issues, the plan is to remove the existing surface and ramp over the roots without disturbing them. We would only look to provide filter cloth and bidim if we need to trim the tree roots. By taking this approach we will significantly reduce future renewal costs to WDC and allow Sicon to provide an accurate 'per metre' rate for future work.

TripStop trial

The only additional cost to WDC is from the introduction of bidim and filter cloth where needed, otherwise it's just the TripStops. By changing the footpath around trees to concrete, it is considered to be a more cost effective solution for WDC as it creates a longer life expectancy, reduces maintenance costs in the long term and ensures a smoother surface for pedestrians

WAIMAKARIRI DISTRICT COUNCIL

POLICY

Roads and Streets

Street and Reserve Trees

1 Introduction

In urban environments trees have a significant environmental role to play in enhancing streetscapes; breaking up the visual impact of buildings, softening hard landscapes and adding a natural element to an otherwise artificial environment. Mature trees are often the only significant natural landscape feature in a new development area and can act as landmarks within the District.

Mature trees provide most environments with a sense of scale. They are an important part of the landscape, providing colour, form, focal points, signposts and continuing interest. Trees are considered by many to have an intrinsic value because of their aesthetic beauty, the amenity and character they provide to an area and an economic value to residents and landowners.

Trees can be important links to the commemoration of significant people or events of the past and serve as a cultural element spanning generations of community members. Some individual trees or species have a customary use or significance to Maori and are notable in that context.

In recent years, greater public awareness of environmental issues has led to increased acknowledgement of the value of trees. In particular, trees contribute to the health of the environment by aiding climate control, combating air pollution, providing ecological diversity, attracting and supporting bird life and providing shade and shelter.

2 Policy Context

Trees are an important part of the community infrastructure. There is a need to recognise that different tree species have different life spans and there is a need to manage trees to ensure their longevity and to plan for their replacement.

Trees are a vital element in the District and contribute to the social, environmental, economic and cultural well-being of the residents and visitors to the District.

For the purposes of clarity the terms “street tree” or “tree” used within this policy also refers to Council owned trees located on Council owned land and reserves.

3 Policy Objective

The objective of this policy is to:

- Protect and effectively manage trees located on Council land; and
- Plant appropriate trees on Council managed land for the benefit and well-being of current and future generations; and
- Support the continued protection, retention and well-being of publicly notable trees; and
- Support community based tree initiatives on Council managed land.

4 Policy Statement

4.1 General

The Council supports the planting of street trees in urban areas where practicable to enhance communities and neighbourhoods. Factors determining this include physical constraints, safety, the opinions of residents, traffic issues and the location of essential services. All street tree planting must have Council approval and will generally be undertaken by the Council on existing streets and by developers in new subdivision areas.

The Council will maintain an inventory of street trees. As part of this an audit will be carried out to assess the condition of each street tree and the information entered into a database. The database will be updated on an ongoing basis as part of the Council’s tree maintenance contract.

Street and Reserve Trees

All street tree planting will be carried out in accordance with the Council's Engineering Code of Practice.

4.2 New Street Trees

All trees selected for planting shall be approved by the Community Greenspace Team.

All new subdivisions, as part of their landscape plan, will incorporate street tree plantings. These landscape plans are approved by Council as part of the subdivision consent.

The Council is responsible for planting trees in existing streets. Urban streets will be planted with street trees where possible. Collector roads are likely to have trees planted on either side as an avenue or incorporated into a median strip. Minor streets vary between having trees planted on one or both sides of the street, outside each or every second house or in groves at the end of the street. Exact locations are site specific.

Council does not generally plant street trees in rural or semi-rural road reserves except as part of an approved landscape plan which is usually developed to enhance the entrances to a subdivision. Where trees have been planted as part of a rural or semi-rural subdivision Council will maintain the trees for their health and public safety.

The Council has a street tree planting programme for the District. In addition, or as part of this programme, the Council will consider requests from residents for new street trees to be planted. Where there is a request for trees to be planted in a street with no existing trees, the Council will generally seek agreement from the majority of residents so that a contiguous pattern of tree planting can be achieved. The Community Greenspace Team will provide residents with a shortlist of tree species that have the appropriate characteristics for the environment and are suitable for that particular street. In streets where existing trees are planted the same or similar species will be planted where practical.

When preparing designs for upgrading roads, kerb and channel and footpaths the Council will endeavour to preserve existing trees where possible. Works should avoid interfering with the trees in any way including roots and surrounding soil where possible. Where this is not possible an agreed street tree plan will be prepared, approved and implemented as part of the road improvements, unless impractical due to the location of services. Where practical any new or relocated services will be installed in locations that provide the best opportunity for the planting of street trees and their continued growth and development.

4.3 Succession Planting

Some streets and reserves in the District are currently defined by the presence of large mature trees. Large trees provide a living link to the history of the area and have visual and amenity benefits.

As trees age past maturity, they begin to deteriorate. Eventually they reach a point where they need to be removed because either they can no longer be maintained in a safe and healthy state, or they have died.

To continually provide streetscapes and reserves with mature trees it is essential that trees are replaced on an ongoing basis. The following will apply:

- Where a Council owned street tree is removed for any reason a replacement tree may be planted. The replacement will be planted on, or as near as practicable, to the site of the removed tree as determined by Green Space staff in consultation with adjacent residents.

- Where mature trees in streets and reserves are nearing the end of their expected life a replacement tree may be planted in a nearby position prior to the removal of the mature tree

(having regard to location, and any relevant planting or reserve management plan). This allows for the replacement tree to sufficiently establish prior to removal of the mature tree.

4.4 Removal of Street Trees

The removal of a healthy tree will only be considered in the following circumstances and even then, only when all options for retaining it have been eliminated:

- Where it causes severe hardship consistent with District Court decisions;
- Where it causes severe disruption to essential services;
- Where it is necessary for a street tree redevelopment plan to be implemented;
- Where it is necessary for the realignment/reformation of a footpath.

In situations where residents claim healthy street trees are having a negative impact on their properties, the following procedure will be followed:

- The tree(s) will be inspected by a Council Community Greenspace Team advisor to ascertain the problem(s).
- Any appropriate works will be carried out by Council's approved tree contractor at the Council's expense. Appropriate works are defined as those necessary to alleviate the problem(s), although not to the extent that the natural attractive form, health or stability of the tree is compromised in the operation.

Where a resident's request for the removal of a tree is received, staff will consult with the neighbours and prepare a report for the relevant Community Board for its consideration.

In the event of road widening or other type of public work where trees are present and have to be removed, consideration is to be given to relocate the trees, if they are suitable for this purpose. Where this is not possible replacement tree planting should be carried out as an integral part of the project and provision for this included in the project assessment and design.

4.5 Removal/relocation of Street Trees in New Subdivisions

The first owners of sections in new subdivisions where street trees have been planted as part of the landscape plans may need to remove or relocate these trees to facilitate vehicle access to the house designed for that section.

In this situation requests for the removal or relocation of a tree must be made in writing to the Council stating:

- The street address of the property and the lot number; and
- The name of the contact person; and
- Contact details; and
- The reason for the tree to be removed or relocated.

On receipt of the request staff will assess the quality of the tree and if the tree can be relocated. This assessment will include:

- Any conditions of sale by the developer;
- Any conditions of the resource consent;
- The streetscape

If the tree can be relocated, an appropriate site is to be marked on the ground in the road berm, where the tree shall be shifted to.

Street and Reserve Trees

If the tree is removed the householder is required to engage Council's tree maintenance contractor or other contractor approved by the Community Greenspace Team to plant another tree of a large initial size (over 2.5 metres) in the road berm as its replacement. It shall be of the same species unless otherwise approved by the Council.

The cost of removing or relocating the tree is to be borne by the householder, not the Council. If an agent of the householder makes the request then the agent is deemed to be the person responsible for the payment of all expenses relating to removal or relocation of street trees.

4.6 Removal/relocation of established trees to allow for minor subdivisions

It is becoming more prevalent that larger, established sections in urban areas are being subdivided into one or more smaller sections to accommodate the demand for housing in established urban areas. At times this will mean that existing well established street trees will be located in a position where they will impede access to the new sections by either completely blocking the proposed vehicle access points or be directly adjacent to the proposed vehicle crossings. In these circumstances no vehicle crossing should be constructed closer than 3 meters to the centreline of an established street tree. This will ensure that damage will not be done to the tree or the vehicle crossing as the tree matures.

In these situations every option must be explored to determine if an alternative vehicle access is available that will protect the tree from damage.

Where alternative access is not available an application must be made to the Community Greenspace Team for permission to remove the tree which will be referred to the appropriate Community Board. Sub-dividers should be made aware that it may take some time for the Board to consider the matter.

Where Council authorises an established street tree to be removed the developer is required to engage Council's tree maintenance contractor or other contractor approved by the Community Greenspace Team to plant another tree of a large initial size (over 2.5 metres tall) with a calliper measurement of a minimum 50mm, in the road berm as its replacement. It shall be of the same species unless otherwise approved by the Council. The cost of removing or relocating the tree is to be borne by the developer, not the Council.

4.7 Species Selection

To minimise complaints about trees which include: leaf drop; fruit, shade creation and invasive roots, a list of tree species commonly used and suitable for street planting is maintained by the Council's Community Greenspace Team. This list is not exhaustive, nor does planting the species on the list guarantee that individual trees will survive and flourish.

Prior to planting new trees (other than replacement trees) in an existing street the Council will supply a list of suitable trees and ascertain residents' opinions about the species to be used. Consensus among residents will confirm the species to be planted. The final decision on choice of tree species for a particular street rests with the Council's Community Greenspace Team.

The planting of fruit and nut trees is at the discretion of the Community Greenspace Team and the factors listed below will influence that decision.

Factors influencing appropriateness of a species for the site will include the following:

- Soil type
- Drainage
- Local climate
- Width of footpath and width of roadway
- Proximity of houses to street and aspect (potential shading)

- Location of services
- Existing nearby species and character of neighbourhood
- Suitability of species in relation to growth habit and other characteristics
- Cost
- Any additional requirements of the Council's Engineering Code of Practice

4.8 Maintenance

To provide the best opportunity for street trees to grow healthily and reach their full potential at maturity a proactive approach to tree health will be under-taken. This will ensure many problems are dealt with before serious damage occurs.

The first three years after trees are planted are the most crucial to their successful establishment and it is important that they are given extra attention during this period.

All maintenance of street trees owned by Council will be carried out by skilled tree contractors employed by the Council and their performance will be monitored by the Community Greenspace Team. Subdividers will maintain all trees planted by them for the full term of the maintenance period defined in the development consent.

Street trees under three years old from planting will be monitored and watered at least once a fortnight during the summer period if required.

Maintenance work to be carried out in the first three years following planting will include the following:

- Eradication of any weeds within the tree ring
- Replenishment of mulch
- Replacement or removal of the mower guard
- Re-staking or removal of stakes as required
- Pest and disease control
- Remedial works on any damaged limbs
- Removal of suckers
- Fertilising

Chemicals including pesticides and herbicides may sometimes be required to ensure the health and survival of a tree. The application of either herbicides or pesticides is allowed only by Council's tree maintenance contractor or another contractor approved by the Community Green Space Team who will be required to hold an up-to-date, relevant qualification.

4.9 Pruning and Training of Trees

To enhance the health and form of street trees and minimise future maintenance requirements the Community Greenspace Team has a pruning and training programme designed to ensure young trees are correctly trained to fit the streetscape and to minimise any future maintenance.

The primary aim of pruning is to maintain adequate clearance above roads and away from footpaths and to enable trees to develop a proper branch structure with a strong central leader. Such a structure will reduce long term maintenance costs and promote the growth of a healthy and aesthetically pleasing tree.

Pruning may also be carried out on street trees to alleviate shading and leaf fall problems on residential properties where this can be done without detrimentally affecting the tree and following recognised good aborcultural practice. Topping or pollarding of trees is not considered good practice and therefore will be carried out in extreme circumstances and with the authority of the Community Greenspace Team.

Street and Reserve Trees

Pruning of street trees will be carried out by authorised Council staff or skilled tree contractors employed by the Council.

The Council will take the following action if it becomes aware of unauthorised pruning or interference with street trees:

- A letter will be sent to the resident concerned informing the resident of the Council's stance on unauthorised pruning of street trees;
- If necessary the Council will notify the Police of this intentional damage.
- If the tree is so detrimentally affected it has to be removed, the resident concerned will be asked to pay the full cost of removing the tree and purchasing and planting a replacement tree.

4.10 Planting

It can be difficult to establish new trees in a street environment. Trees can suffer from a lack of shelter and water and vandalism also takes its toll.

To ensure new trees have the best possible chance of surviving the first three years after planting a flyer is put into the letter box of the property the tree is located outside providing information for the resident on how they can assist in ensuring the tree remains healthy and is kept watered.

Planting is generally carried out between May and September and will be carried out according to the Council's Engineering Code of Practice and the Community Greenspace Team's planting specifications.

5 Links to legislation, other policies and community outcomes

Waimakariri District Plan
Waimakariri District Council Engineering Code of Practice
QS-R905 Street Trees – Standard Operating Procedure
Property Law Act 2007, section 333

Community Outcomes:
There is a safe environment for all

6 Adopted by and date

Approved by the Community and Recreation Committee on 21 March 2017 and adopted by Council on 4 April 2017.

7 Review

Review every six years or sooner on request.

Arboricultural Report

7th October 2022

London Plane Trees Assessment – 13-17A Queen Street, Rangiora

Report Author – Liz Warner

Warner Tree Care

Liz Warner

50 Horns Road,

RD1,

Oxford,

7495

Contents

1.0 Executive Summary

This independent report was commissioned by Waimakariri District Council.

The report brief was to carry out a tree assessment of four mature London Plane trees located in Queen Street in Rangiora. I was asked to review the health and structure of the mature London Plane trees (*Platanus x acerifolia*), by carrying out a non-invasive visual tree health assessment and providing overall recommendations for the future management of the trees.

The four mature London Plane trees (*Platanus x acerifolia*), are located at the Eastern end and on the Southern side of Queen Street in Rangiora. The four trees form part of an avenue of approximately 40 London Plane trees which line both side of Queen Street between King Street and Victoria Street.

A visual tree assessment was conducted on the four mature London Plane trees the condition of the trees was assessed and scored using the Christchurch City Council trees condition rating system (*April 2017*).

- Of the four London Plane trees assessed, all four trees were found to be in a fair overall condition.

It is recommended that the four mature London Plane trees (*Platanus x acerifolia*), are retained and protected in their current state, as part of an avenue. The avenue of London Plane trees are very significant in the local landscape and may also have some historical importance within the Queen Street setting.

2.0 Site and Tree Details

Figure 1: Aerial photo showing the avenue of London Plane trees in Queen Street.

The four mature London Plane trees (*Platanus x acerifolia*), are located at the Eastern end of Queen Street in Rangiora. Queen Street is located in the town centre area and runs East to West between Ivory Street and Church Street in Rangiora, North Canterbury.

Queen Street is approximately 0.6 kilometres long, with four side streets running off it. The London Plane trees comprise an avenue of approximately 40 trees lining the majority of the length of Queen Street between King Street and Victoria Street, on both sides of the street. There are several gaps in the avenue where trees have been removed, but they have mostly been replaced with a new young London Plane tree to continue the avenue.

The trees were planted circa 1960-1964 (information from Canterbury Maps), perhaps it is likely that they were planted to commemorate a visit to New Zealand by Queen Elizabeth in 1963.

Queen Street is also the location of Victoria Park, a historic park bought at auction by Council in 1902. Victoria Park is located on the Northern side of Queen Street between Murray Street and Percival Street.

The trees are all located in grass berms approximately 2m wide, between the road and the footpath. Ground conditions beneath the canopy of the trees are currently mown grass, asphalt footpath/ road and concrete kerb and channel. The majority of the trees have some surface roots visible in the berm and signs that tree roots are lifting the footpath.

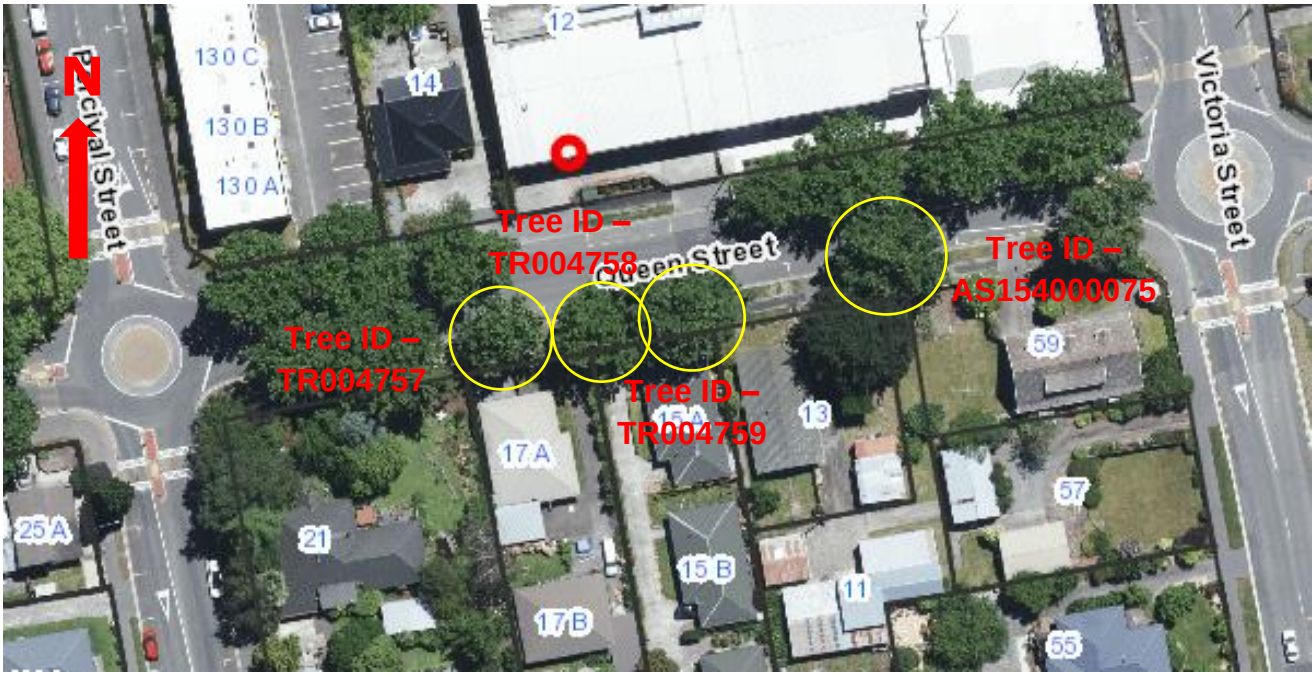


Figure 2: Aerial photo showing approximate location of the four London Plane trees in Queen Street.

Figure 3: Showing one section of the London Plane tree avenue located in Queen Street.

3.0 Tree Assessment Method

The initial site and trees inspection for this report was carried out in September 2022 and included non-invasive visual trees assessment methods. The condition of the trees was scored using the Christchurch City Council trees condition rating system (*April 2017*). All measurements are approximate.

The system evaluates the Health and Structure of a tree. The overall condition rating provided is the worst score for either Health or Structure (e.g., if a trees scores Good for Health and Poor for Structure, the overall Condition rating will be Poor).

The four mature London Plane trees were all found to be in a good condition for health, with good vigour and less than 10% foliage density loss.

The four mature London Plane trees were all found to be in a fair condition for structure, where defects are present but can be rectified in order to maintain the structural integrity and continued well-being of tree.

These survey results are only valid at the time of the report being written as changes that occur to the trees and/ or site conditions cannot be accounted for.

3.1 Observations

3.1.1 Trunk and Crown

The London Plane trees range in height from approximately 14-15.5m, with an average crown spread of 12-15m and a DBH of 0.42-0.69m.

The trees all appear to have vigorous healthy canopies with good extension growth. The trees all have some minor deadwood within the crown, less than 10%. There are some small hanging branches within the canopy of three of the trees.

All of the four London Plane trees have been heavily crown lifted to clear the road, footpath and private properties. The trees all have overhanging branches into private property by approximately 1-4m, which is to be expected with mature trees with a spreading crown such as these.

Figure 4: Showing the multi-stemmed form of the London Plane trees.

Figure 5: Showing the overhanging canopies of the London Plane trees.

The London Plane tree on the Western frontage of 15A Queen Street, (Tree ID – TR004758) has lots of secondary growth within the crown and could benefit from a crown clean.

The mature London Plane trees are single stemmed to a height of approximately 2-2.3m where they split into multiple main stems, as is typical of the species.

The trees all have multiple old pruning wounds visible (likely pollarded at some time in the past and then left to grow), some of which have occluded well and some have only partially occluded but no signs of decay present in the wounds. There are no visible outward signs of trunk damage or decay in the main stem and when tapped with a sounding hammer no suspected decay was found.

Figure 6: Showing an old wound that has partially occluded but has no signs of decay present.

Figure 7: Showing an old wound that has fully occluded.

3.1.2 Rootplate

The buttress roots on the London Plane trees appear to be well formed and fairly uniform for the circumference of the trunks. Two of the London Plane trees at numbers 13 and 15A have surface roots visible in the berm and there has been some mower damage to these surface roots over the years. There are signs that tree roots may be lifting the footpath in these areas.

The London Plane tree on the Western frontage of 15A Queen Street, (Tree ID – TR004758) is growing in a very small grass berm approx. 2.1m by 2.2m wide between two private driveways, the road and footpath. The tree is only 0.3m away from the edge of the driveway to number 15A, it is possible that some root damage has occurred in the past when the driveway was installed or replaced.

4.0 Overall Conclusions

The visual tree assessment carried out on the mature London Plane trees concluded that the trees are in a good condition for health and a fair condition for structure, giving them a fair overall condition.

The four mature London Plane trees are part of a much larger avenue of trees and although only four trees were included in this particular assessment the trees need to be treated as a group rather than as individual trees.

If individual trees in an avenue or group of trees are removed or severely pruned this will affect the rest of the group of trees too, by changing wind dynamics etc.

5.0 Overall Recommendations

It is recommended that the four mature London Plane trees (*Platanus x acerifolia*), are retained and protected in their current state, as part of an avenue. The avenue of London Plane trees are very significant in the local landscape and may also have some historical importance within the Queen Street setting.

It is recommended that the trees do not have any further crown lifting or removal of lower branches, except the tree at number 17A (Tree ID – AS154000075), which has a small lions-tailed lower branch over the footpath which would benefit from removal.

It is recommended that all of the trees have a light crown clean to remove any minor deadwood and secondary growth. Take great care to ensure that no more lions-tailing is caused by removing too much secondary growth.

It is recommended that the trees are monitored on a two yearly basis, to ensure the health; safety and longevity of the trees are maintained.

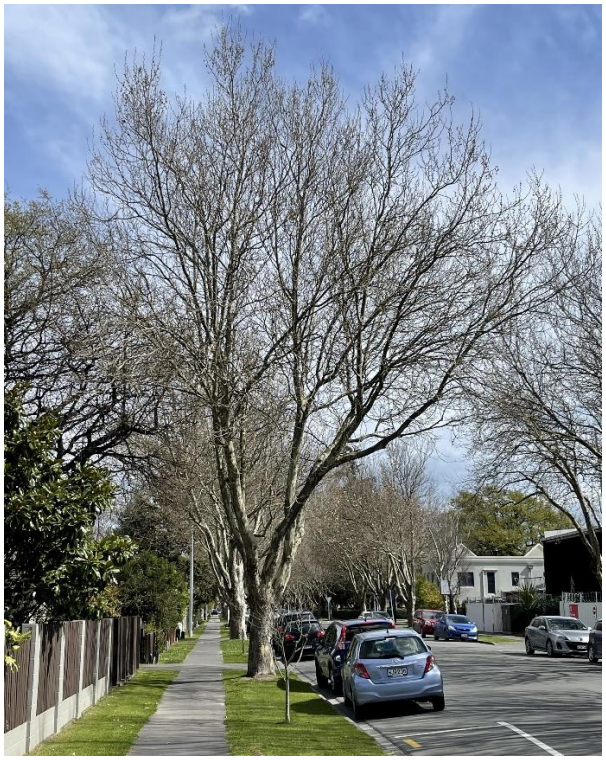
It is recommended that all trees pruning and maintenance is carried out by suitably experienced and qualified arboricultural contractors.

Liz Warner - *BSc (Hons) Arboriculture*

Consultant Arborist

Warner Tree Care Ltd

Street Address:	13 Queen Street
Tree ID:	AS154000075
Tree Species:	*Platanus x acerifolia*
Height:	15.5 metres
Canopy Spread:	14.0 metres
DBH:	0.61 metres
Life Expectancy:	Long
Health:	2 (Good)
Form:	3 (Fair)
Overall Condition:	3 (Fair)



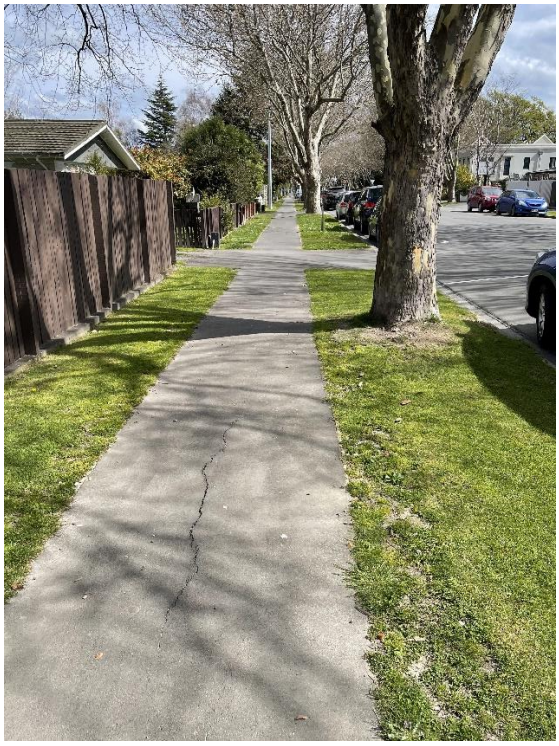
Tree has good vigour with less than 10% foliage density loss.

Tree appears to have been pollarded at some time in the past, tree has been left to grow. Tree has minor deadwood within the crown.

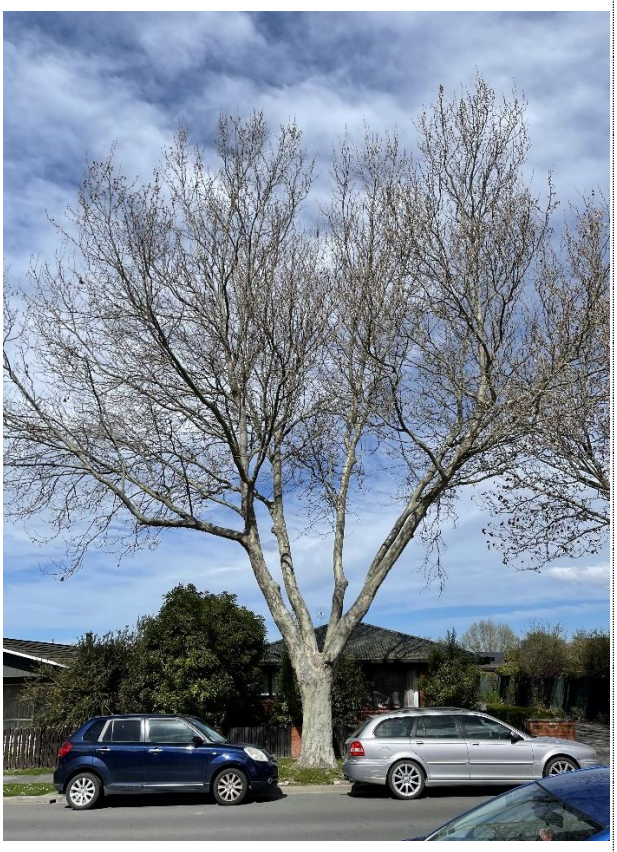
Tree has been heavily crown lifted to clear, road, footpath and private property. Tree overhangs private property by up to 2m.

Tree has multiple old pruning wounds visible, some of which have occluded well, some have only partially occluded but no signs of decay present in the wounds.

Tree splits into six main stems at 2m. Tree has two small hangers in crown.



Street Address:	15A Queen Street
Tree ID:	TR004759
Tree Species:	*Platanus x acerifolia*
Height:	15.0 metres
Canopy Spread:	15.0 metres
DBH:	0.69 metres
Life Expectancy:	Long
Health:	2 (Good)
Form:	3 (Fair)
Overall Condition:	3 (Fair)



Tree has good vigour with less than 10% foliage density loss.

Tree appears to have been pollarded at some time in the past, tree has been left to grow. Tree has minor deadwood within the crown.

Tree has been heavily crown lifted to clear, road, footpath and private property. Tree overhangs private property by up to 4m.

Tree has multiple old pruning wounds visible, some of which have occluded well, some have only partially occluded but no signs of decay present in the wounds.

Tree splits into four main stems at 2.3m. Tree has a small hanger in the crown, over private property.

Street Address:	15A Queen Street
Tree ID:	TR004758
Tree Species:	*Platanus x acerifolia*
Height:	14.5 metres
Canopy Spread:	13.0 metres
DBH:	0.60 metres
Life Expectancy:	Long
Health:	2 (Good)
Form:	3 (Fair)
Overall Condition:	3 (Fair)

Tree has good vigour with less than 10% foliage density loss.

Tree appears to have been pollarded at some time in the past, tree has been left to grow. Tree has minor deadwood within the crown. Tree has lots of secondary branches in the upper crown.

Tree has been heavily crown lifted to clear, road, footpath and private property. Tree overhangs private property by up to 4m.

Tree has multiple old pruning wounds visible, some of which have occluded well, some have only partially occluded but no signs of decay present in the wounds.

Tree splits into three main stems at 2m. Tree has a small hanger in the crown.

Street Address:	17A Queen Street
Tree ID:	TR004757
Tree Species:	*Platanus x acerifolia*
Height:	14.0 metres
Canopy Spread:	12.0 metres
DBH:	0.42 metres
Life Expectancy:	Long
Health:	2 (Good)
Form:	3 (Fair)
Overall Condition:	3 (Fair)

Tree has good vigour with less than 10% foliage density loss.

Tree appears to have been pollarded at some time in the past, tree has been left to grow. Tree has minor deadwood within the crown. Tree has lots of secondary branches in the upper crown.

Tree has been heavily crown lifted to clear, road, footpath and private property. Tree overhangs private property by up to 1m.

Tree has multiple old pruning wounds visible, some of which have occluded well, some have only partially occluded but no signs of decay present in the wounds.

Tree splits into three main stems at 2.2m.

Field	Description
Tree ID	Asset identification numbers
Tree Species	Scientific tree names
Height (m)	Tree height in metres
Canopy Width (m)	Canopy width in metres
DBH (mm)	Trunk diameter(s) at 1.4 metres above ground
Life Expectancy	Short = 0-10 Years
	Medium = 10-20 Years
	Long = 20+ Years
Condition Rating	1 = excellent
	2 = good
	3 = fair
	4 = poor
	5 = very poor
Tree Details	Descriptions and tree defects

Liz Warner – Biography

Liz Warner is a Consultant Arborist and a Director of Warner Tree Care Limited, she has over 25years experience in the Arboriculture industry.

She graduated from Lancashire University (UK), in 2004 with a Batchelor of Science (Honours), in Arboriculture. This followed on from achieving both a National Certificate and a National Diploma in Horticulture with the specialism in Arboriculture from De Montfort University in 1998/1999.

Liz has been both self-employed and employed in the arboricultural contracting industry in both NZ and the UK and has worked for local government as a Tree Officer in the UK. Liz has significant experience working as a Consultant Arborist in the local government sector in Canterbury for the last 14years.

Grant MacLeod

From: Grant MacLeod
Sent: Friday, 20 January 2023 2:43 PM
To: [redacted]
Cc: Rosie Jordan; Chris Brown
Subject: Queen street trees
Attachments: Queen Street London Plane Tree assessment.pdf

Hi, last year I met with you and the Mayor to talk about the trees outside your property. As a result we have had a peer review of the maintenance of the trees conducted. Attached to this email is the peer review. If you can please read through and come back to me I would be happy to meet with you to discuss this further. The report does suggest minimal work to the trees which isn't the result that you had wanted. I do invite you to also suggest or request a further peer review on this should you wish.

If you can have a look through and then please come back to me so we can further work on suitable outcomes.

Regards

Grant MacLeod | **GreenSpace Manager**
Community and Recreation
Phone: 0800 965 468 (0800 WMK GOV)
Mobile: +64272301529

CHAIRPERSON'S REPORT

*For the months of **October 2023***

CHAIRPERSON'S DIARY	
Date	***Events attended***
Monday 9 October	Meeting with Roading staff.
Tuesday 10 October	Meeting to review Speed Management Plan consultation documentation.
	Meeting with staff in preparation for the Rangiora-Ashley Community Board meeting.
Wednesday 11 October	Rangiora-Ashley Community Board meeting.
Thursday 12 October	Guest Speaker at the Ashley Friendship Club.
	Meeting with owner of Rangiora PACK'nSAVE.
Friday 13 October	Meeting with Co-chair of the Waimakariri Youth Council Ruby Wilson.
Wednesday 18 October	Attended the Waimakariri Community Service Awards.
Saturday 21 October	Attended the Northern A & P Show.
Thursday 26 October	Meals on Wheels.
Friday 27 October	Meeting with staff to discuss the Rangiora-Ashley Community Board Plan.
	Meeting with Greenspace staff.

Jim Gerard
Chairperson
Rangiora-Ashley Community Board

RANGIORA-ASHLEY COMMUNITY BOARD

MEMBERS INFORMATION EXCHANGE

*For the month of **October 2023***

Liz McClure

MEMBER'S DIARY		DISCUSSION POINTS
Date	***Events members have attended***	***Community Feedback/Issues Raised***
3 October	Waimak Health Advisory Group	
5 October	Mainpower Light Festival	
9 October	Mental Health Resilience Talk	Lance Burdett and Shane Fletcher
11 October	RACB Meeting	
14 October	Rangiora Borough Primary School	150th Jubilee Speeches and Landmark Gates unveiling
18 October	Waimak Community Services Awards	Congratulations everyone and especially JIM GERARD
24 October	National Community Boards Online Hui	
27 & 28 October	Area Coordinator Pink Ribbon Street Appeal	4 sites / 92 volunteers

Bruce McLaren

MEMBER'S DIARY		DISCUSSION POINTS
Date	***Events members have supported***	***Community Feedback/Issues Raised***
	Justice of the Peace	Voluntary JP services to the community
	North Canterbury Neighbourhood Support	RACB appointee to this group
1 October	Market in the Park	Vibrant and well attended
7 October	St John Church Fair	Popular community event (and great Devonshire Tea)
8 October	CIMS training	To be followed by workshop on 9 November
9 October	Eco Educate meeting with Rangiora High School students	Continued WDC engagement with school following yellow bin audit fails. More than 60 students are leading this initiative
11 October	RACB meeting	
13-14 October	*Rangiora Borough School 150th anniversary*	*Former School Board member but I had COVID so I couldn't attend*
14 October	Election Day	
21 October	Rangiora A&P show	150th show
26 October	Rangiora Early Records Society	RACB appointee to this group. Interesting public talk about the *Tuhoe*
28 October	Shooting short film "Love Train"	Filming in Rangiora and Christchurch locations by talented local students including graduates from the Hartley School of Performing Arts
28 October	Safer Plates Rangiora Community Patrol fundraising event securing car number plates from theft	Number plates are stolen from your car in your driveway and used to hide the identity of stolen cars that are then used in crimes around the district. Securing your plates prevents them from being stolen.
30 October	Rangiora Community Patrol meeting at RSA	Managing risks as the H&S Officer