

7. THORNYCROFT STREET – STREET RENEWAL PROJECT

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PURPOSE OF REPORT

1. The purpose of this report is to seek the Board's approval to proceed to final design, tender and construction of the street renewal works along Thornycroft Street, as shown in the Plan for Board Approval attached.

EXECUTIVE SUMMARY

2. The street renewal project for Thornycroft Street was initiated through the Council's Asset Management Plan due to the condition of the existing kerb and dish channel. The primary aim of the project is thus to replace the existing kerb and dish channel with kerb and flat channel along the full length of Thornycroft Street.
3. Thornycroft Street is located in the suburb of Fendalton, which falls within the jurisdiction of the Fendalton / Waimairi Community Board.
4. An initial survey of residents in Thornycroft Street was carried out in January 2006, from which the Council received 32 responses. The key issues raised included:
 - More landscaping
 - Drainage problems at the start of the street
 - Under grounding of services
 - Parking at the cul-de-sac end of the street
 - Parking on the bend in the street causing restrictions
 - Better lighting
 - Rubbish truck access
 - Tight entrance to the street
 - Design the street like Waiwetū Street
 - Near misses with cyclists using the access way at the end of the street and crossing Thornycroft Street.
5. As a result of internal and external feedback, the objectives of the project were defined as:
 - To reflect the local road nature of the street
 - To reflect the open, spacious nature of the street
 - To maintain or improve safety for pedestrians, cyclists and vehicles
 - To maintain a safe crossing point between the two walkways at the cul-de-sac end of the street
 - To provide landscaping improvements, where possible, including street trees
 - To allow for encroachment of private vegetation onto the road reserve, where appropriate
 - To ensure the works do not have a detrimental effect on any protected trees
 - To assess the lighting and carry out recommended improvements.
6. Following the development of options, a concept plan for Thornycroft Street was presented to the community in a consultation newsletter in June/July 2006 requesting feedback. This followed a seminar held with the Fendalton/Waimairi Community Board on 13 June 2006.

7. There were 24 responses received on the concept plan, of which 17 were in support, five were in opposition, and two stated no preference. Several changes were made to the concept plan, as a result of the feedback received.
8. The concept plan for Board approval is shown in Attachment 1. The key features of the plan include:
 - Full pavement reconstruction and replacement of the existing kerb and dish channel with kerb and flat channel.
 - A reduced carriageway width of nine metres, with isolated narrowings at the intersection with Glandovey Road of seven metres, which is an existing feature, and to 3.5 metres width, adjacent to the walkway entrances.
 - Retention of the width of the street within the cul-de-sac to facilitate the turning of rubbish trucks and other heavy vehicles.
 - Repositioning of footpaths, and provision of a service strip to retain existing private planting within the road reserve.
 - Widening of the entrance to Thornycroft Street by constructing corner roundings to facilitate vehicles turning in and out of the street.
 - Planting of Japanese magnolia trees in the berm, and removal of the two existing street trees at the head of the cul-de-sac. The Council's arborist has recommended removal of these two trees, as they are not in a healthy condition.
9. The under grounding of overhead services commenced construction in October 2006.

FINANCIAL AND LEGAL CONSIDERATIONS

10. The street renewal works along Thornycroft Street are programmed in the Transport and Greenspace capital programme, for implementation in the 2007/2008 financial year. The cost estimate for this project is \$598,700. The budget for the project is \$594,709, and any cost overruns will be managed within the overall kerb and channel budget for 2007/2008.
11. There are several notable/heritage trees shown in the City Plan that are located within Thornycroft Street. In particular, there is a European Beech (*fagus sylvatica*) located at 15 Thornycroft Street approximately 10 metres from the road reserve. Resource consent may be required to undertake construction works, if the soil is disturbed to a depth of >75mm within 10 metres; however, this is not expected to be the case.
12. The property at 27 Glandovey Road is within a heritage setting, and has a frontage to Thornycroft Street. No resource consent is required in relation to the proposed works.
13. There do not appear to be any legal implications for this project; however, Community Board resolutions are required to approve the "No Stopping" restrictions.

STAFF RECOMMENDATIONS

It is recommended that the Board:

- (a) Approve the street renewal works for Thornycroft Street to proceed to final design, tender and construction, as shown in the Plan for Board Approval in Attachment 1.
- (b) Approve the following no stopping restrictions:

New no stopping

- (i) That the stopping of vehicles be prohibited at any time on both the east and west side of Thornycroft Street commencing at a point 310 metres north of its intersection with Glandovey Road and extending 25 metres in a northerly direction.
- (ii) That the stopping of vehicles be prohibited at any time on both the east and west side of Thornycroft Street commencing at its intersection with Glandovey Road and extending 15 metres in a northerly direction.

- (iii) That the stopping of vehicles be prohibited at any time on the north side of Glandovey Road commencing at its intersection with Thornycroft Street and extending 25 metres in a westerly direction.
- (iv) That the stopping of vehicles be prohibited at any time on the north side of Glandovey Road commencing at its intersection with Thornycroft Street and extending 5 metres in an easterly direction.

SECTION ONE - BACKGROUND ON THORNYCROFT STREET – STREET RENEWAL PROJECT

- 14. This street renewal project was initiated through the Council's Asset Management Plan. The primary aim of the project is to replace the existing kerb and dish channel with kerb and flat channel along the length of Thornycroft Street.
- 15. Thornycroft Street is located in the Fendalton Ward, which falls within the jurisdiction of the Fendalton/Waimairi Community Board, and is a cul-de-sac running off Glandovey Road. It is classified as a local road in the Council's roading hierarchy.
- 16. Thornycroft Street is approximately 370 metres long, and has a legal road width of 15 metres, with an existing formed carriageway of 10.3 metres. There is an access way, which connects to Waiwetu Reserve and to Bryndwr Road.
- 17. Thornycroft Street is situated in the SAM 8 Fendalton Area, which defines the street as a Special Amenity Area, characterised by mature trees, well-vegetated front boundaries and large sections. Accordingly, one of the project objectives is to allow for encroachment of private vegetation onto the road reserve, where appropriate.
- 18. The Land Transport New Zealand Crash Analysis System shows there have been no crashes recorded on Thornycroft Street or within a 50-metre radius of its intersection with Glandovey Road for the five-year period between 2001 and 2005.
- 19. An initial survey was carried out with the local community in January 2006, and 32 responses were received. The key issues raised included:
 - More landscaping
 - Drainage problems at the start of the street
 - Undergrounding of services
 - Parking at the cul-de-sac end of the street
 - Parking on the bend in the street causes restrictions
 - Better lighting
 - Rubbish truck access
 - Entrance to the street is tight
 - Design street like Waiwetu Street
 - Near misses with cyclists using the access way at the end of the street and crossing Thornycroft Street.
- 20. Internal Council consultation was undertaken in December 2005, which resulted in the following issues being raised:
 - (a) Asset issues surrounding the kerb and channel, reconstruction of shoulders and drainage requirements.
 - (b) Conflicts with cyclists using the access way at the end of the street, and crossing Thornycroft Street.
 - (c) There is a pedestrian/cycle access way to both Waiwetu Street and Jeffreys Road through Waiwetu Reserve, as well as to Bryndwr Road. Fendalton School can be accessed from Waiwetu Street. Therefore, Thornycroft Street is an important link particularly for school children, with more pedestrian/cycle traffic than other local roads.

- (d) All of Thornycroft Street lies within the SAM 8 Fendalton Area. A SAM is a Special Amenity Area, and is characterised by mature trees, well-vegetated front boundaries, and large sections. These elements create an area that gives a sense of spaciousness, which is heightened by the glimpses of housing through the vegetation and behind fencing. The acknowledged well-vegetated front boundaries need to be considered in these street works and accommodation made for plantings encroaching into the road reserve.
 - (e) There are numerous protected trees at 15 and 23 Thornycroft Street; however, it appears that only two lie near the road frontage.
21. The objectives of the project were thus defined as:
- (a) To reflect the local road nature of the street.
 - (b) To reflect the open, spacious nature of the properties adjacent as identified in the SAM.
 - (c) To maintain or improve safety for pedestrians, cyclists and vehicles.
 - (d) To maintain a safe crossing point between the two walkways at the cul-de-sac end of the street.
 - (e) To provide landscaping improvements, where possible, including street trees.
 - (f) To allow for encroachment of private vegetation onto the road reserve, where appropriate.
 - (g) To ensure the works do not have a detrimental effect on any protected trees.
 - (h) To assess the lighting and carry out recommended improvements.
22. The renewal of the street addresses many of the issues that were raised in the initial consultation including reconstruction of the footpaths, pavement and drainage, and a street lighting upgrade. The remaining issues were addressed in the development of concept designs, which included:
- Lack of street landscaping and street appeal
 - Safety near the alleyway (pedestrian/cycle/vehicle conflict)
 - Parking and access at the end of the cul-de-sac
 - Parking on the inside of the curve in the road
 - Narrow entranceway to the street.
23. The under grounding of overhead services comprises part of this street renewal project. A cost sharing agreement has been reached between residents and the Council for this under grounding. Construction of the under grounding commenced in October 2006.
24. The concept plan with an eight-metre wide carriageway was presented to the community in a consultation newsletter in June/July 2006 for formal consultation and requested feedback. This followed a seminar with the Fendalton/Waimairi Community Board held on 13 June 2006. 24 responses were received, of which 17 were in support of the proposed concept plan, five were in opposition, and two stated no preference. A summary of the submissions received, and an evaluation of the issues raised is shown in Attachment 2.
25. The key issues raised during the consultation phase were:
- (a) Turning in and out of Glandovey Road is too tight and needs improving
 - (b) Trees at Glandovey Road may obscure vision
 - (c) Concern that the landscaped area in the cul-de-sac end of the street will restrict property access
 - (d) Query whether the eight-metre wide carriageway will allow two large vehicles to pass
 - (e) Placement of tactile pavers at the Glandovey Road intersection

- (f) Landscaping areas adjacent to the access way crossing point rather than around the trees at the end of the street.
 - (g) Query as to why no speed hump is included at the bend in the street.
26. Given the feedback received on the initial concept plan, and in particular the concern with the eight-metre wide carriageway, as well as potential services conflicts that were identified later, the concept plan was revised to a nine-metre wide carriageway, as shown in Attachment 1. This change means that street trees along both sides of the street can no longer be accommodated. A letter was sent to all submitters outlining the feedback received and the changes to the concept plan on 12 October 2006. There has been no adverse feedback to the revised plan.

SECTION TWO - OPTIONS

Kerb Alignment Options

- 27. Three options were developed for consideration and comparison of the kerb alignment along Thornycroft Street. Each of the options provided varying degrees of road and kerb width, which affected the amount of road space available for vehicle parking and manoeuvrability, but also affected the amount of landscaping and tree planting that can be accommodated in the berms.
- 28. Option 1 involved a full pavement reconstruction of Thornycroft Street and replacement of the old kerb and dish channel with new kerb and flat channel. This option provided for an eight-metre wide carriageway for the road reconstruction, with isolated narrowings at the intersection with Glandovey Road to seven metres, and at the cul-de-sac end of the street adjacent to the walkway entrances to 3.5 metres. Kerb build-outs were proposed to reduce the carriageway width at the cul-de-sac end of the street.
- 29. Option 2 is the same as Option 1, except that a 7.5-metre wide carriageway allowed for wide landscaped berms to be constructed.
- 30. Option 3 is the same as Option 1, except that a nine-metre wide carriageway is proposed.
- 31. For all three options, footpaths along the length of the street were repositioned from the kerb side to the property boundary side of the berm to enable any service poles to be located in the berm area, had the overhead services been retained. These service poles are currently located on the back of the kerb and in the footpath.
- 32. The intersection of Thornycroft Street and Glandovey Road was modified to improve turning in and out of the street. This was achieved by replacing the current squared off arrangement, with a curved radius kerb and channel to make negotiation of the intersection, particularly the left turns into and out of Thornycroft Street easier. Attachment 3 illustrates the path of a car making the left turn in with ease. The footpath on Glandovey Road was realigned slightly to improve recognition by pedestrians of the crossing of Thornycroft Street. The threshold pavers at the entrance to Thornycroft Street were extended to include the crossed path for pedestrians at this location.
- 33. Landscaping, including tree planting in the berm was investigated for the preferred option, and street lighting has been upgraded as part of the under grounding of overhead services.

Walkway Crossing Options

- 34. Three options were developed for comparison and consideration at the cul-de-sac end of the street in the vicinity of the walkway, which connects to Bryndwr Road and Waiwetu Reserve. Each option attempted to improve accessibility between the two walkways, to enhance safety for pedestrians and cyclists, and to raise the awareness of traffic to the presence of the crossing point. The options were not designed to give priority to pedestrians and cyclists over vehicular traffic. The current arrangement of the dish channel crossing blocks on either side of the walkway is very dangerous.
- 35. Walkway crossing Option 1 sought to install a textured raised crossing between the two walkways, with a seven-metre wide carriageway.
- 36. Walkway crossing Option 2 proposed a paved crossing with landscaping centrally located to each side of the crossing point, and a crossing width of 3.5 metres per lane.
- 37. Walkway crossing Option 3 sought to narrow the area between the two walkways to 3.5 metres in total, and includes "No Stopping" restrictions.

PREFERRED OPTION

38. The preferred option for kerb alignment is Option 3, combined with walkway crossing option 3, which involves the full pavement reconstruction of Thornycroft Street and replacement of the existing kerb and dish channel with new kerb and flat channel.
39. The carriageway will be reduced to a width of nine metres, from its existing 10.3 metres, with isolated narrowing at the intersection with Glandovey Road to seven metres width, and at the cul-de-sac end of the street adjacent to the walkway entrances, where kerb build-outs will reduce the carriageway width to 3.5 metres.
40. The width of the street within the cul-de-sac itself will be retained to facilitate the turning of rubbish collection vehicles and other heavy vehicles.
41. Footpaths along the length of the street on the western side will be repositioned from the kerb side to the property boundary side to enable street trees to be located within the berm area. On the eastern side of the street, a narrow service strip will be provided between the property boundary and the footpath to retain the existing private planting within the road reserve.
42. Japanese magnolia trees will be planted in the kerbside berm on the western side of the street, while the two existing street trees at the head of the cul-de-sac will be removed. The Council's arborist has recommended the removal of these two trees, as they are not in a healthy condition.
43. The turning radii at the entrance to Thornycroft Street will be increased and a curved section of kerb and channel will be constructed. This will make negotiation of the intersection, particularly the left turns into and out of Thornycroft Street, much easier. The footpath on Glandovey Road will be realigned slightly to improve recognition by pedestrians of the crossing of Thornycroft Street. The threshold pavers at the entrance to Thornycroft Street will be extended to include the crossed path for pedestrians at this location.
44. A cost sharing agreement has been reached with residents to underground the overhead services. New street lighting poles will be located against the property boundary.

SECTION THREE - ASSESSMENT OF OPTIONS

Maintain the Status Quo (If Not Preferred Option)

45. The option to maintain the status quo essentially means to undertake no capital works along Thornycroft Street. This would retain the street and road environment in its existing condition, including deep dish kerb and channel.
46. This option would be inconsistent with the Community Outcomes outlined in the LTCCP, and would be inconsistent with Council strategies, particularly the Pedestrian Strategy, Cycling Strategy, and Road Safety Strategy, as well as the Council's asset management plan.
47. Therefore it is considered that it would not be appropriate to maintain the status quo because of the opportunity to contribute to an efficient, safe and sustainable transport system within this area of the City, whilst providing for all modes of transportation.

Alternative Options

Kerb Alignment Options

48. An 8-metre wide carriageway, as proposed in Option 1 would have assisted in reducing vehicle speeds along Thornycroft Street, as well as provided an opportunity for landscaping and street trees along both sides of the street in the berm. Resource consent would be required for a street renewal project where the carriageway is less than nine metres wide, which is the permitted minimum width outlined in the City Plan. This option is not achievable due to conflict with existing services under the proposed new kerb alignment.
49. A 7.5-metre wide carriageway, as outlined in Option 2 would also have assisted in reducing vehicle speeds, and would have presented an opportunity to provide significant landscaping within the berm. There would have been some loss in on-street parking where the narrower road would have been reduced to one-way movements if two vehicles were parked on opposing sides of the carriageway. Resource consent would be required for a street renewal project where the carriageway is less than nine metres wide, which is the permitted minimum width outlined in the City Plan.

50. Option 3 has a 9-metre wide carriageway, which would improve street drainage, and the narrower carriageway would assist in reducing vehicle speeds. The carriageway narrowing provides an opportunity for some landscaping and street tree planting along the western berm in the widened berm areas. On-street parking is retained along both sides of the road.

Walkway Crossing Options

51. All of the three walkway crossing options provided an opportunity for increased awareness of the crossing for motorists and a reduced crossing distance for pedestrians and cyclists.
52. Walkway crossing options 1 and 2 had the disadvantage that the design may have indicated priority of crossing over the road to cyclists and pedestrians. This is not considered desirable by the project team.
53. The advantages of walkway crossing option 2 also included an opportunity for centralised street landscaping. However, the disadvantage of this option included the reduction in accessibility to two driveways, and that children on the crossing could be hidden by the centralised street landscaping.
54. Walkway crossing option 3 provided an opportunity for additional kerbside landscaping, with the disadvantage that the reduction of a section of the street would be to one-way traffic only; however, this would affect only a minimal number of vehicles.

The Preferred Option

55. The preferred option for kerb alignment is Option 3 with walkway crossing option 3, which meets the aims and objectives for this project, and takes into consideration all identified asset management issues, best practice guidelines, safety issues, safety audit recommendations, community feedback and legal considerations associated with the project.
56. The local road nature of the street is reflected in the nine-metre wide carriageway, which is specified as the minimum width permitted by the City Plan.
57. The open spacious nature of the properties adjacent to the street is reflected with the nine-metre wide carriageway allowing for kerbside berms on the west side in the order of 1.7 – 2.0 metres to be provided. This represents a significant increase in the amount of berm available for grass, landscaping and street trees. The provision of the additional space within the road reserve for non-motorised use is consistent with this objective.
58. Safety is improved for pedestrians, cyclists and vehicles by replacing the existing dish channel crossing blocks on either side of the walkway with a kerb build-out that leads to a 3.5-metre wide crossing point instead of the existing ten-metre wide crossing point. This improves safety for pedestrians and cyclists by increasing awareness of the crossing point to motorists, significantly reducing the crossing distance for pedestrians and cyclists, and removing the dangerous crossover blocks.
59. The reconfiguration of the intersection at Glandovey Road and Thornycroft Street improves safety for vehicles through the provision of an increased turning radius, which removes the existing conflict between vehicles turning left into Thornycroft Street and vehicles turning right out of Thornycroft Street. The modifications to the intersection provide additional emphasis of the intersecting street for pedestrians walking along Glandovey Road.
60. The proposal retains as much of the privately planted vegetation that is located in the road reserve as possible. Some vegetation may need to be removed in order to accommodate a minimum width footpath and a berm wide enough to accommodate significant street trees.
61. The proposed works will not have any detrimental effect on protected trees within the street. Any works conducted within 10 metres of a protected tree, where more than the top 75 mm of soil will be disturbed will require a resource consent, which will define acceptable work practices in these instances to ensure no detrimental effects on protected trees.
62. The Council has approved the underground conversion of the overhead services in Thornycroft Street, subject to a 50:50 cost share with the residents. The residents' share of the conversion has been paid, and the tender accepted. Construction of the under grounding of overhead services commenced in October 2006.
63. There are no land ownership issues associated with this project. However, it is noted that both properties on the corner of Thornycroft Street and Glandovey Road are currently occupying a significant amount of Council land.