

**BEFORE THE INDEPENDENT HEARING PANEL
APPOINTED BY HAMILTON CITY COUNCIL**

IN THE MATTER of the Resource Management Act 1991 (**Act**)

AND

IN THE MATTER of hearing submissions on Plan Change 5 to the Hamilton
City District Plan

BETWEEN **THE ADARE COMPANY LIMITED**
Submitter #53

AND **HAMILTON CITY COUNCIL**
Local authority

**EVIDENCE IN CHIEF OF TONY PENNY
FOR THE ADARE COMPANY LIMITED**

TRANSPORT

16 SEPTEMBER 2022

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SUMMARY OF EVIDENCE

1. My name is Tony Penny and I am a traffic and transportation engineer. I am providing evidence in relation to the Adare Company's submissions on the transportation components of the Hamilton City Council's Plan Change 5 (**PC5**) to the Hamilton District Plan.
2. I summarise my evidence, according to the key headings in this statement as follows:

Design Criteria

(Page 6)

- (a) The Adare submissions on road design criteria, which are the basis for my evidence on this matter, reflected a concern that the dimensions specified in PC5 for the various road cross section categories would result in unnecessarily wide road corridors and motor vehicle speeds that would not be consistent with the policies relating to promoting the attractiveness and safety of walking and cycling (as well as the efficient use of land).
- (b) My evidence addresses the design criteria for transport corridors and private accessways which are specified in detail in the S42A version of Table 15-6b. I support the introduction of two new road categories (Open Space Edge Road and Neighbourhood Street) and the addition of a detailed specification for a Minor Arterial road which was not originally in PC5.
- (c) I have however recommended some significant refinements to the Neighbourhood Street criteria involving the specification of two alternative ranges for the carriageway width and requiring kerbside parking instead of recessed parking. I have also identified a few errors with the criteria for the Open Space Edge Road and Minor Arterial categories and recommended changes/corrections.
- (d) All the other categories of transport corridors and private accessways included in the original PC5 design criteria table (Collector Roads, Local Road, Rear Lane and Private Way) have been modified since PC5 was notified. My evidence identifies these (and other) changes/corrections to the design criteria table that have evolved during the planning process. The changes/corrections

referred to above include those agreed at transport conferencing; some of which had not been translated into the S42A version of Table 15-6b.

- (e) At Attachment 1 to this evidence I set out all the changes/corrections described above and minor improvements to the Table 15-6b headings and footnotes. This amended Table 15-6b is my recommended version. The attachment includes tracked changes indicating all of the further modifications/corrections that I consider need to be made to the transport corridor design criteria shown in the S42A version of Table 15-6b for consistency, to improve understanding and to achieve better criteria.

Medium Density Residential Standards

(Page 17)

- (f) This section of my evidence addresses three transport related concerns associated with medium density residential development expressed in the evidence of Mr Black for Hamilton City Council. They are: the safety issues associated with closely spaced driveways, the potential blocking of footpaths resulting from inappropriate setback of garages and the difficulties associated with positioning rubbish bins etc for collection.
- (g) I agree with Mr Black's concerns on these matters and support the S42A recommendations for changes to related rules and assessment criteria.

Indicative Key Local Transport Network

(Page 18)

- (h) Adare provided a submission which sought to have the Indicative Key Local Transport Network expanded to show a link between Peacocke Road and Peacocke Lane, ensuring access to its block of land and adjacent properties on the west side of Peacockes Road to the north of the future Whatukoruru Drive. My evidence emphasises that the alignment of the link and the location of its intersection with Peacocke Road that has been recommended in the S42A report as an addition to the structure plan is only indicative. The final configuration will depend on an agreement between affected land owners and HCC.

Public Transport*(Page 18)*

- (i) My evidence addresses some minor clarification issues relating to the specification of public transport facilities on the Peacocke structure plan. I support the recommendations in the S42A report relating to additional bus stops being shown south of the local centre and the bus hub at the local centre being located on Peacockes Road and not in the local centre.

Jones Land submission*(Page 19)*

- (j) The Jones Land submission suggesting the removal of the Peacocke Road flyover of the North-South Arterial and the partial closure/diversion of Peacocke Road was opposed by Adare. I explain this opposition in my evidence and I support the HCC rejection of the Jones Land submission.

Local/Neighbourhood Centre Accessways*(Page 20)*

- (k) Adare submitted that the rule specifying the widths for accessways to the local centre and the neighbourhood centre indicated excessive widths in the case of four categories. The reduction of the respective widths was proposed. The recommendation in Mr Black's evidence was to delete all four categories but, as I point out in my evidence, this has not been reflected in the rule included with the S42A report.

INTRODUCTION

1. My full name is Anthony Thomas Penny. I am a traffic and transportation engineer based in Christchurch.
2. I am a Fellow of the Institute of Professional Engineers of New Zealand, an APEC Engineer and a registered international professional engineer. I hold a Bachelor Degree in Mathematics and a Bachelor Degree in Civil Engineering from the University of Canterbury.
3. My experience includes over 40 years in traffic engineering and transportation planning with the Christchurch City Council, the Department of Transport in the United Kingdom, the MVA Consultancy in Hong Kong and consultants Traffic Design Group Limited and Stantec in New Zealand.
4. I have worked as a traffic engineering specialist on projects throughout New Zealand for over 30 years having been engaged by local authorities and private concerns in many centres to advise on the full range of transportation issues covering safety, management and planning matters.

CODE OF CONDUCT

5. I have read the Environment Court Code of Conduct for expert witnesses and agree to comply with it.
6. I confirm that the topics and opinions addressed in this statement are within my area of expertise except where I state that I have relied on the evidence of other persons. I have not omitted to consider materials or facts known to me that might alter or detract from the opinions I have expressed.

SCOPE OF EVIDENCE

7. My evidence will cover submissions and further submissions on the original transportation components of PC5 by The Adare Company Ltd (**Adare**) and other parties. It will also reference the Joint Witness Statements (**JWS**) in relation to Planning and Transport because a considerable degree of consensus was achieved prior to the preparation of the Section 42A (**S42A**) report.

8. The changes to the transportation components of PC5 that are summarised in the S42A report are described in detail in the evidence of Mr Alastair Black on behalf of Hamilton City Council (**HCC**).
9. Adare's submissions sought a range of changes to PC5's transport provisions, including:
 - (a) introduction of cross sections for certain new categories of road;
 - (b) changes to improve the clarity and consistency of design criteria for existing road categories;
 - (c) deletion of the proposed rule requiring a minimum of 50m between driveways on roads with separated cycleways
 - (d) an addition to the Indicative Key Local Road Network
 - (e) clarification that the Proposed Public Transport Hub at the Local Centre would be on Peacockes Road;
 - (f) rejection of the submission suggesting the partial closure of Peacockes Road; and
 - (g) changes to accessway widths for Local and Neighbourhood Centres.
10. A number of the transport issues raised in Adare's submissions were agreed through expert witness conferencing. Other submission points have been addressed by the changes to the provisions recommended by Mr Black and adopted by HCC. There is a large degree of alignment between myself and Mr Black. My evidence focuses on the issues where I have a different opinion to Mr Black, or where I consider that further changes to the S42A report's recommended provisions would achieve a superior transport outcome.
11. This evidence is structured as follows:
 - (a) Design Criteria for Transport Corridors
 - (i) General
 - (ii) Minor Arterial Road

- (iii) Collector Road
 - (iv) Local Road
 - (v) Open Space Edge Road
 - (vi) Neighbourhood Street
- (b) Design Criteria for Private Accessways
- (i) Rear Lane
 - (ii) Private Way
- (c) Medium Density Residential Standards
- (d) Indicative Key Local Transport Network
- (e) Public Transport
- (f) Jones Land Submission
- (g) Local/Neighbourhood Centre Accessways
- (h) Conclusion

DESIGN CRITERIA FOR TRANSPORT CORRIDORS

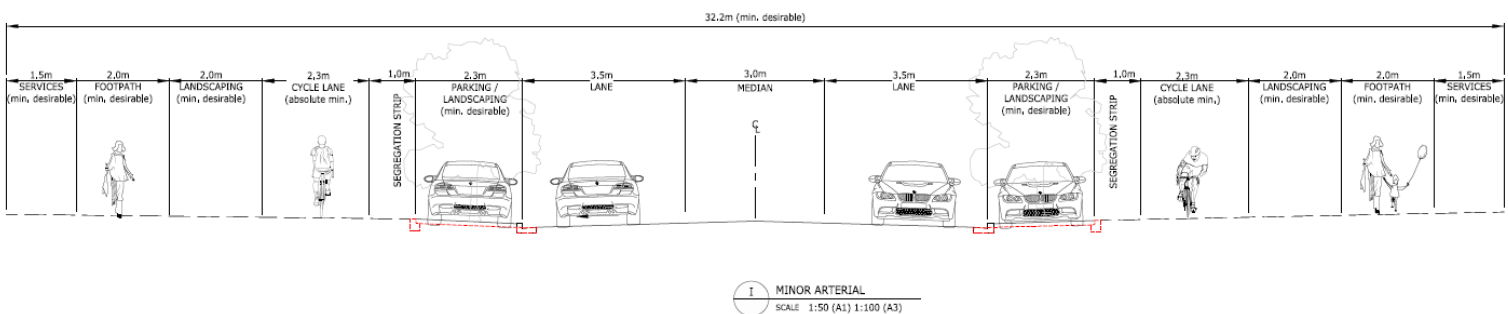
General

12. I agree with Mr Black that the introduction to Appendix 15-6 appropriately emphasises that the design criteria for transport corridors in Table 15-6b should be used for guidance. I also agree with Mr Black's proposal (paragraph 30 of his evidence) that reference to specific external design guides could be added to the PC5 assessment criteria for new transport corridor design.
13. I do not consider that it should be necessary to rely on the restricted discretionary status of transport corridors to obtain consent for common roads that are not specified or that do not comply with the limited design criteria originally included in PC5. I understand that the design criteria in Table 15-6b are for guidance, but the specified values do tend to be used for design purposes to smooth the way for consent and design approvals.

14. To this end, I support the recommendation in the S42A report for two new transport corridor categories being added to the PC5 design criteria in Table 15-6b (“Park Edge” road and “Neighbourhood Street”). I also support the existing Minor Arterial Road category which is included in Table 15-6a also being included in Table 15-6b, with amendments.
15. I comment on the key changes that I recommend to the specific criteria for various road typologies in the following sections of my evidence. The specific changes that I recommend to Table 15-6b are set out in full in **Attachment 1**.

Minor Arterial Roads

16. HCC have accepted Adare’s submission seeking to add design criteria in PC5 (Table 15-6b) for Minor Arterial Roads so landowners affected by undesignated roads have a better understanding of the effects of future land acquisition. Subject to the minor correction to the berm width shown in the table in Attachment 1, I support the design criteria details for Minor Arterial Roads recommended in the S42A report that are also shown in the following diagram.¹



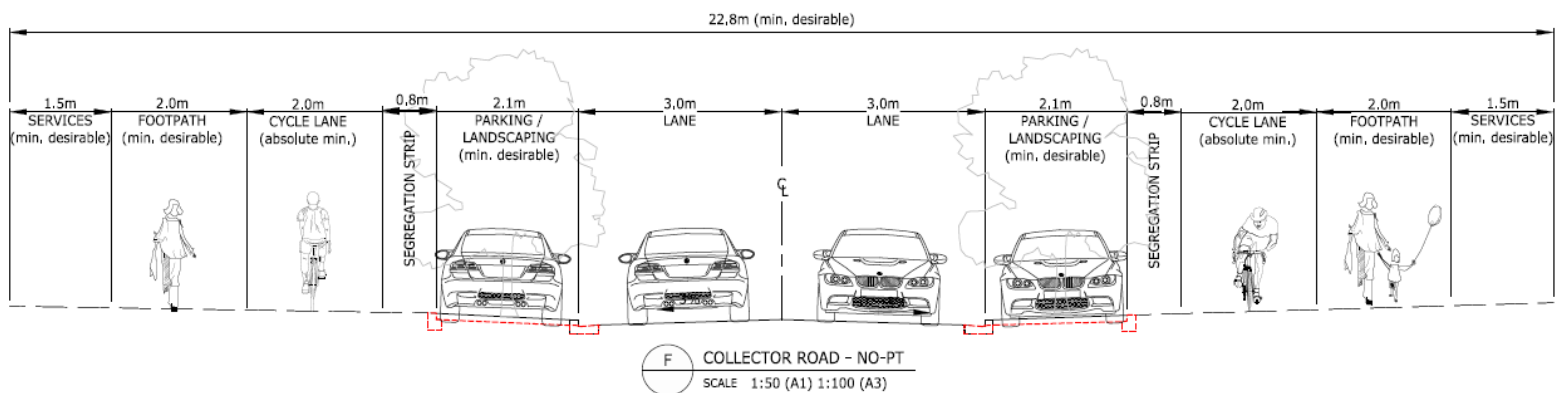
Collector Roads

17. The minimum desirable width of the service corridor for Collector Roads in Table 15-6b is specified as “2m both sides.” The equivalent service corridors for Local Roads and Minor Arterial Roads are both shown as having a minimum desirable width of 1.5m. The evidence of Ray O’Callaghan is that there is no logic for having the service corridor for Collector Roads wider than the service corridor for Minor Arterial Roads.

¹ This and the other diagrams in my evidence are also included in Appendix 2.

He considers that 1.5m would be an appropriate minimum desirable width for service corridors on Collector Roads (as well as Minor Arterial Roads and Local Roads).

18. I also consider that the carriageway widths for Collector Roads with public transport (PT) routes (6.8m) and non-PT routes (6.4m) are more than are desirable to avoid higher speeds. Allowing wider roads (enabling higher speeds) is not supported by the policies related to prioritising safety for pedestrians and cyclists. The Adare submission sought that the carriageway widths should be reduced to 6.4m (PT route) and 6.0m (non-PT route) as indicated in the following diagram. I support these reductions as the narrower width would reduce vehicle speeds and improve road safety. The below diagram shows my proposed amendments for a Collector Road (non-PT route).

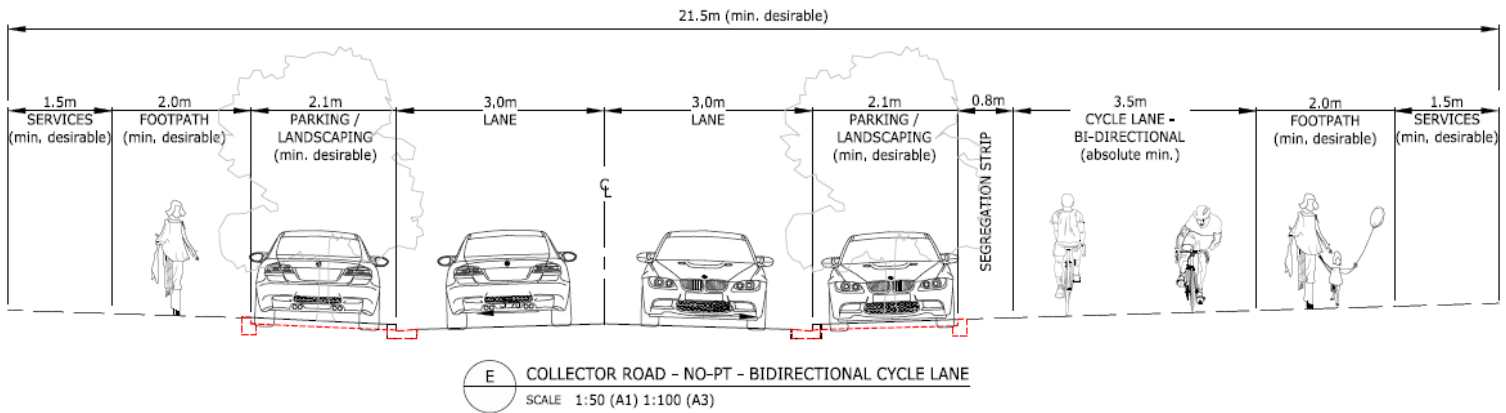


19. In his evidence, Mr Black refers to the Auckland design standard requiring 6.4m wide carriageways for collector routes except for those accommodating very large buses.² The Collector Roads that are PT routes in the PSPA are unlikely to need to accommodate large buses. As such, I consider that a 6.4m wide carriageway for Collector Roads on PT routes would be more appropriate. Logically, Collector Roads which are not PT routes could have narrower (and safer) carriageways so a reduction from 6.4m to 6.0m for their carriageway widths would be appropriate.

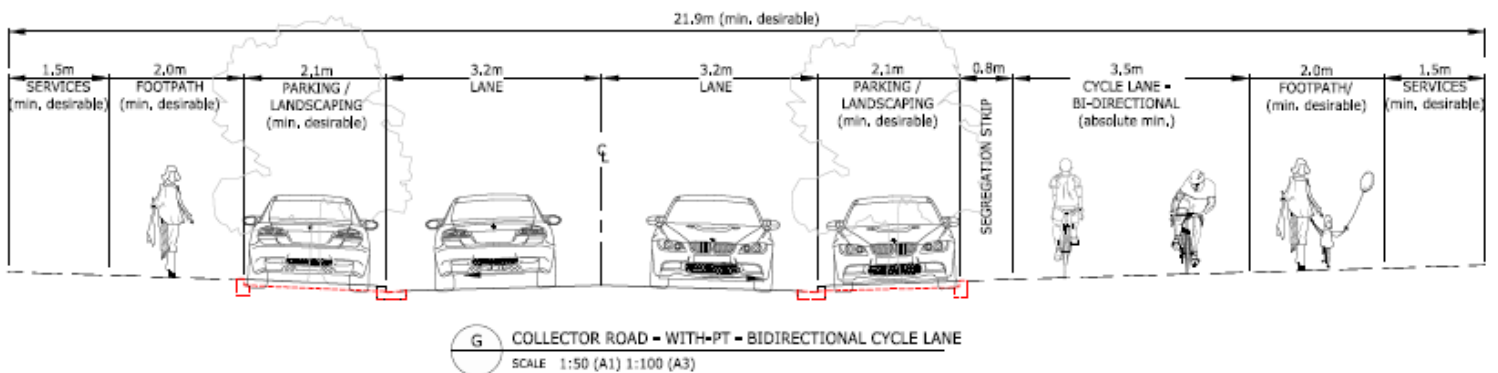
² Statement of Evidence of Alastair James Black (Transport), 2 September 2022, at [45].

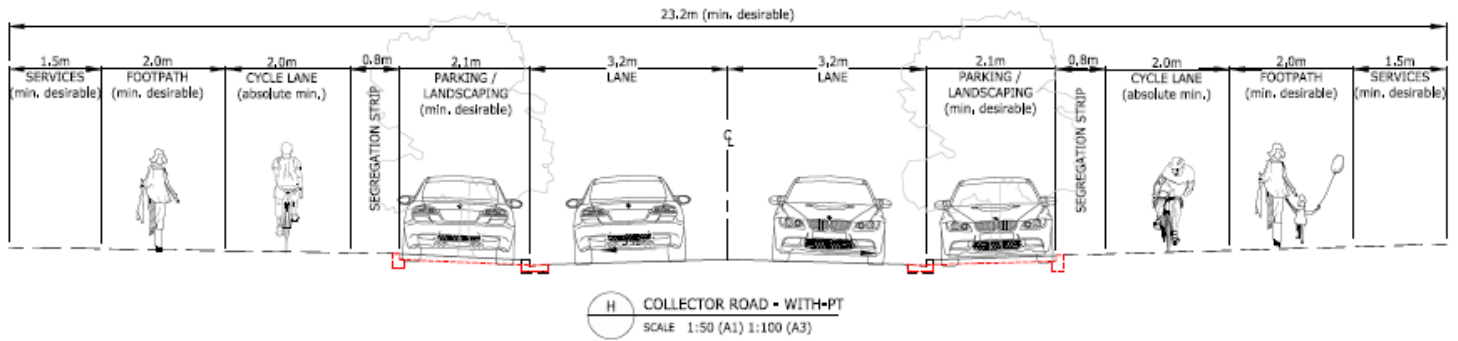
20. The S42A report version of Table 15-6b has a minor error in that Collector Roads with PT should have a berm width of 8.9m not 8.8m. With the other changes that I have recommended, this would reduce berm width to 8.4m as indicated in Attachment 1.

21. I support the concept of allowing a single bi-directional cycle facility to be provided on one side of a Collector Road as indicated in the following diagram. While this alternative is included in the cycle requirements in Table 15-6b, it is not reflected in the other criteria such as the legal road width which is reduced. I have modified the details in the version of Table 15-6b in Attachment 1 and recommend that these are adopted. The diagram below depicts a non-PT collector road with a bidirectional cycle lane.



22. The below images show the collector roads with transport, for completeness.

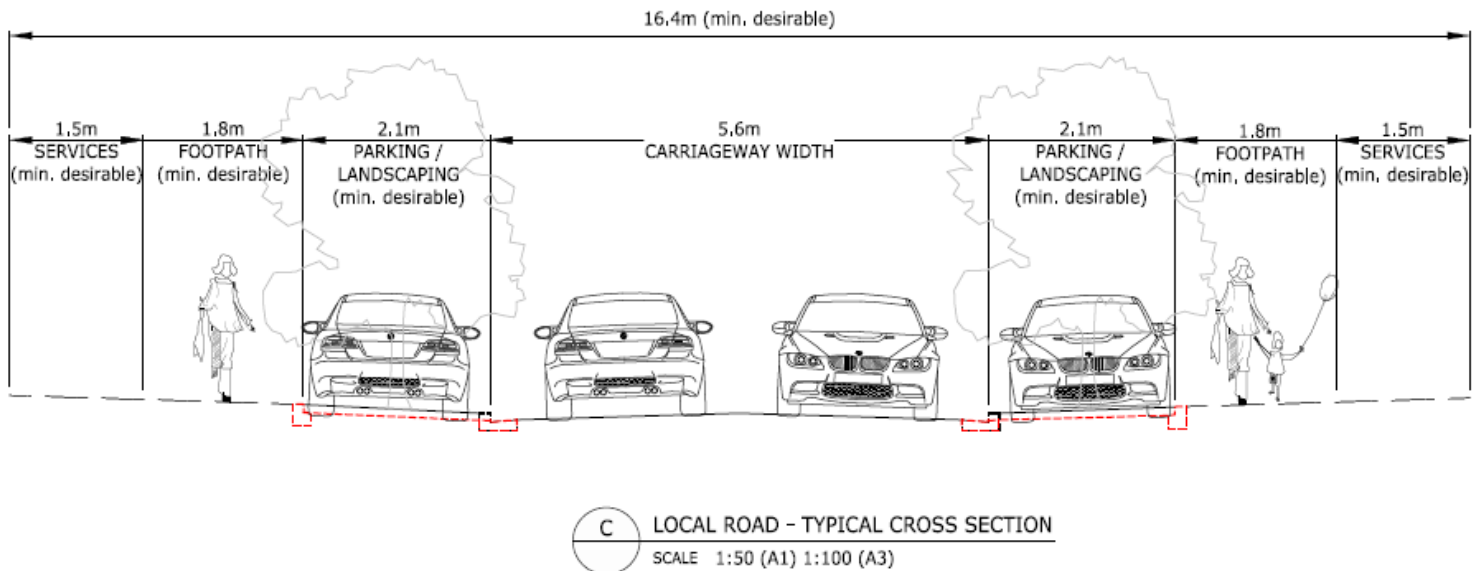




Local Roads

23. I support all but one of the design criteria for Local Roads in the S42A report version of Table 15-6b. The one criterion that I consider should be changed is the carriageway width, which should be specified as 5.6m rather than 6.0m. This change would reduce vehicle speeds and optimise the environment for pedestrians crossing the street and cyclists who are required to share the movement lanes with motor vehicles.

24. The cross section proposed for Local Roads is indicated in the following diagram.



25. Mr Black states that he does not support Adare's submission that suggested a 5.6m wide carriageway for Local Roads.³ However, at section 4.6 of his Appendix 1 he said "a blanket approval of transport corridors with 5.6m wide carriageways would be appropriate."
26. In my opinion there is no clear basis for the 6.0m width for Local Road carriageways adopted for PC5 other than it is used currently in the District Plan and it is a conveniently round number.
27. The New Zealand standard NZS4404 Land Development and Subdivision Infrastructure specifies 5.6m as an appropriate carriageway width for a local road. Mr Black makes a case for NZS4404 being over-ruled by District Plan criteria but I do not understand why they should not be consistent.
28. Traditionally, many local roads have been constructed with 9m wide carriageways which include provision for kerbside parking on both sides and two traffic movement lanes. They have tended to operate safely and efficiently even where there is a significant amount of kerbside parking. The design criteria for Local Roads which is recommended by the S42A report represent an equivalent configuration with parking on both sides and two movement lanes. The equivalent road width for the Local Road including the 2.1m wide recessed parking bays is 10.2m which is significantly wider than the traditional 9m wide road. That supports my concerns about the speed environment associated with the S42A Local Road design criteria. Even with my proposed reduction in the Local Road carriageway width from 6.0m to 5.6m, the equivalent road width would be 9.8m. That would still be wider than the traditional local roads but would not result in the same speed levels as the S42A criteria.
29. Mr Black has based his analysis of carriageway widths on a 1.9m width for cars and 0.3m clearances.⁴ Using the same assumptions for a 9m wide road, the movement carriageway would be 4.6m. Based on the kerbside parking occupying only 2.1m of the overall 9m carriageway the movement

³ Statement of Evidence of Alastair James Black (Transport), 2 September 2022, at [49]-[53].

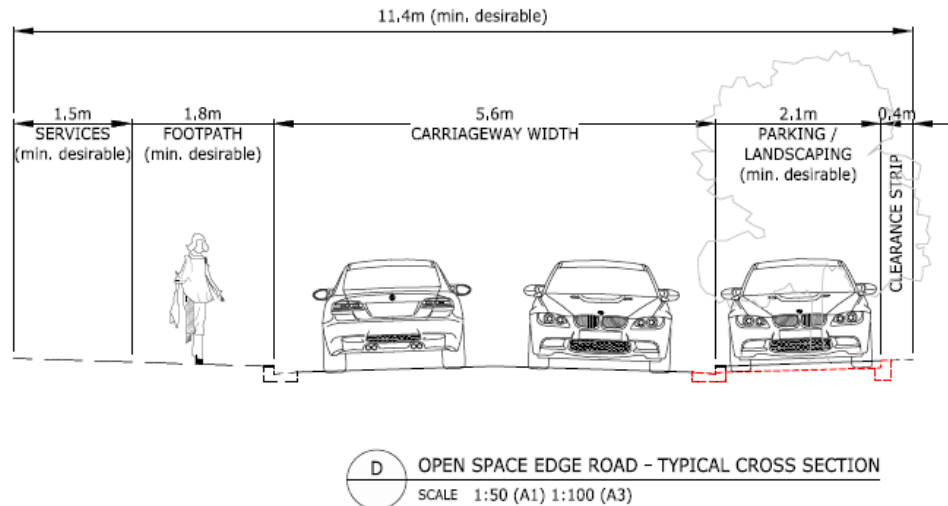
⁴ Statement of Evidence of Alastair James Black (Transport), 2 September 2022, Appendix 1, at section 4.6.

carriageway would be 4.8m wide. Accordingly, a design criterion that has a movement carriageway of 6m represents a significant increase (of 1.2m) in the movement carriageway width compared to traditional local road dimensions. In my opinion, such an increase would result in higher vehicle speeds that would not necessarily support the PC5 objectives related to creating a safer environment that will encourage walking and cycling.

30. A 5.6m wide carriageway would still be wider than the traditional model but it should be noted that with 9m wide local roads, many drivers give way to opposing traffic where cars are parked on both sides of the road. While this is an effective traffic calming influence, I consider that there is some safety risk associated with other drivers who do not give way. Accordingly, I consider that the 5.6m wide carriageway would represent a compromise in accommodating a more consistent and safe two-way movement than the 4.8m wide movement carriageway, while encouraging lower vehicle speeds than could be expected with the 6m wide carriageway.

Open Space Edge Roads

31. Mr Black supports the introduction of the new road category of Park Edge road proposed in an Adare submission. In the JWS these roads were referred to as Open Space Edge and I prefer that because it is more encompassing. However the S42A version of Table 15-6b refers to this category as Park Edge.
32. As shown in the following diagram, these roads will have recessed parking on the open space side of the road only. This is partly because without any driveways, there will be sufficient scope for parking along the frontage of the open space to serve both sides of the road. There is also no requirement to provide a footpath within the transport corridor on the open space side because there will be the potential to provide pedestrian facilities within the open space.



33. I support the introduction of this road category, and the criteria specified in the S42A report, except for the carriageway width which has been indicated as 6.0m compared with the 5.6m wide carriageway proposed by the Adare submission on PC5. Section 3.2 of the JWS for the Planning and Transport conferencing records that Mr Black and I agreed with a 5.6m carriageway width for these roads.⁵
34. As was also agreed at the Planning and Transport conferencing,⁶ the berm widths in Table 15-6b should be 3.3m (1.5m service corridor plus 1.8m footpath) on the side opposite the open space and 2.5m (2.1m parking bay plus 0.4m for the kerb at the back of the parking bay) on the open space side.
35. With the agreed carriageway width (5.6m) and berm widths (3.3m and 2.5m) above, the legal road width for open space edge roads included in Table 15-6b should be 11.4m not 11.8m. These corrections are shown in **Attachment 1**.

Neighbourhood Streets

36. As recorded in the Planning and Transportation JWS, it was agreed by experts with an interest in the matter that a new category of "Minor Local" road should be introduced into Table 15-6b.⁷ The JWS recorded that the

⁵ JWS Planning and Transport (2), 23 August 2022, at 3.2.

⁶ JWS Planning and Transport (2), 23 August 2022, at 3.2.

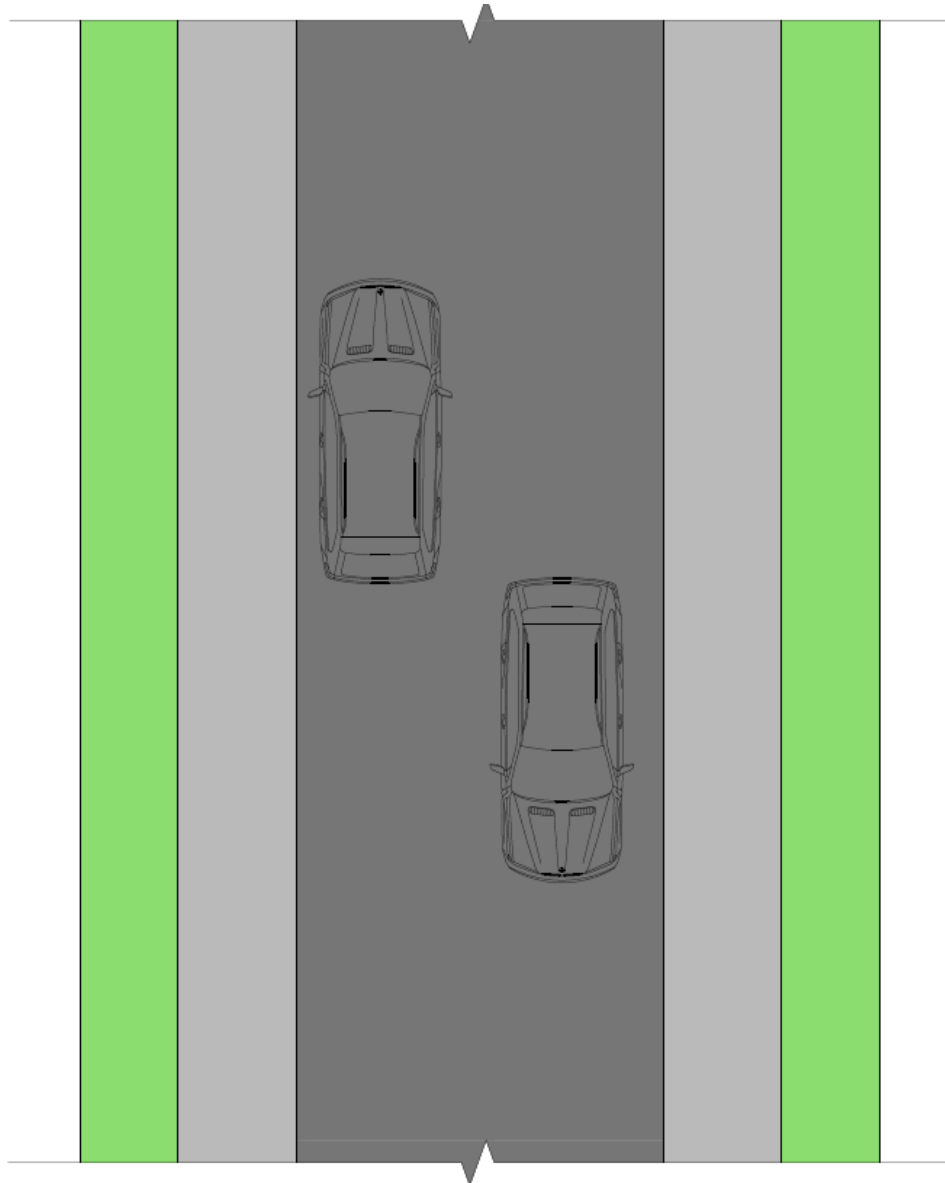
⁷ JWS Planning and Transport (2), 23 August 2022, at 3.3.

threshold between the use of the minor local road and the local road categories, and the design standards for the minor local road needed to be established.⁸

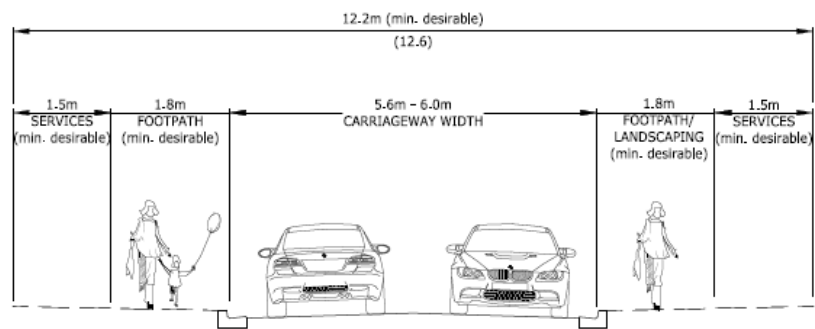
37. Subsequently, HCC has expressed a preference to use the term “Neighbourhood Street” rather than “Minor Local” road. I support the introduction of the new category and the Neighbourhood Street name. However, I do not agree with several of the design criteria values for Neighbourhood Streets which are recommended in the S42A report version of Table 15-6b. The criteria that I recommend for Neighbourhood Streets are shown in **Attachment 1**.
38. The addition which is recommended to Table 15-6b in the S42A report includes the following qualifier for the Neighbourhood Street category “serving up to 20 units or up to 100m long”. In my opinion that is too restrictive. For example, a private way that only needs to be 6m wide can serve up to 20 units. Also, if a road serves more than 20 units it would need to be designed to Local Road standards which currently require a minimum legal road width of 16.8m. There are many existing neighbourhood streets that serve more than 20 units which are narrower than the 16.8m.
39. I recommend that the Neighbourhood Street design guide should be used for cul-de-sacs up to 150m in length and for roads with dual connectivity up to 250m in length provided that there is little or no through traffic. In my opinion, this is still conservative given the number of effective neighbourhood streets that are longer than 150m and the relatively few vehicle conflicts that are predicted to occur on such streets.
40. The reason for specifying a longer length for Neighbourhood Streets that have connections to the surrounding road network at both ends is that there will be reduced conflicts between vehicles and with pedestrians and cyclists on those streets. However, that only applies if the street does not also accommodate through traffic.

⁸ JWS Planning and Transport (2), 23 August 2022, at 3.3.

41. In my opinion, the design speed environment for Neighbourhood Streets should be 20km/h to support safe walking and cycling rather than the 30km/h applied in the S42A recommendations for both Neighbourhood Streets and Local Roads.
42. It is common for a Neighbourhood Street to only have a footpath on one side because of the limited number of pedestrians. Therefore, I have proposed that the footpath requirements should be specified as "1.8m wide footpath on one side at least." If a footpath is not provided on one side of the street, then it is anticipated that the space would be occupied by a grass berm or landscaping. Accordingly, the overall berm width is expected to still be a minimum of 3.3m wide.
43. I am proposing another significant difference from the S42A recommendations in terms of not requiring recessed parking. The reason for this is that cars parked at the kerbside provide a traffic calming effect by requiring drivers to travel more slowly with the prospect of having to give way at locations where parked cars restrict two-way flow. It also means that parking is generally available outside each residential lot and not down the road where a recessed parking bay is located.
44. Based on Neighbourhood Streets having kerbside parking, I have recommended two acceptable ranges for the carriageway width. The first and narrower range (5.6m-6.0m) that effectively accommodates just two car widths applies to shorter Neighbourhood Streets (say up to 75m for a cul-de-sac and 125m for dual access road) This can involve the two-way movement of vehicles along the street where there are no cars parked at the kerbside or the one-way movement of vehicles passing cars parked at the kerbside. The proposed configuration is illustrated in the diagram following and the detailed changes to the S42A design criteria are shown in Attachment 1.



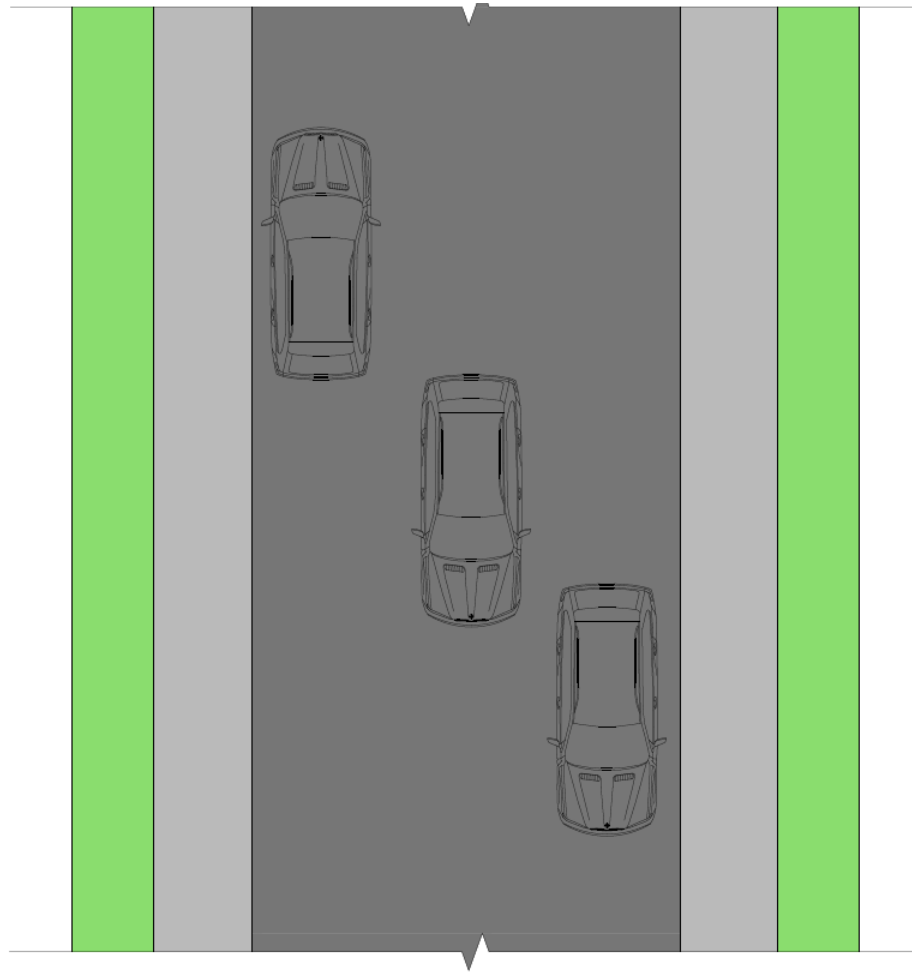
PLAN VIEW



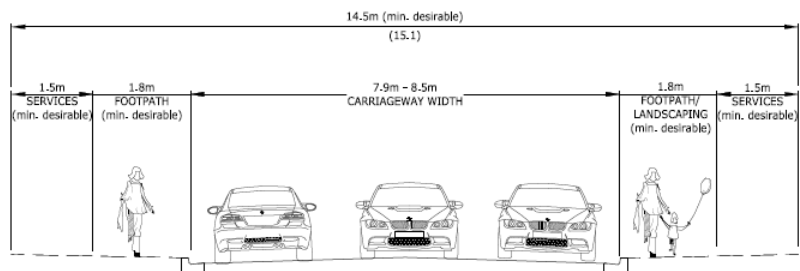
TYPICAL SECTION

B NEIGHBOURHOOD STREET - 2 CAR WIDTH
SCALE 1:50 (A1) 1:100 (A3)

45. The second acceptable range for the width of Neighbourhood Street carriageways (7.9m-8.5m) relates to streets that serve more lots and that can accommodate three car widths. The operation of these streets can involve the two-way movement of vehicles along the street where there is kerbside parking only on one side or the one-way movement of vehicles passing cars parked at the kerbside on both sides. This is illustrated in the following diagram.



PLAN VIEW



TYPICAL SECTION

A NEIGHBOURHOOD STREET - 3 CAR WIDTH
 SCALE 1:50 (A1) 1:100 (A3)

46. In his evidence Mr Black states that he is concerned about “vehicles parked on both sides of the street limiting movements to one-way.”⁹ As I have described above, it is cars parked at the kerbside restricting traffic movements to one-way that slows vehicle speeds and improves the street environment for pedestrians and cyclists.
47. I agree that a problem could occur if cars are parked on both sides of the street directly opposite each other and the carriageway width does not leave sufficient width for a car, or more critically, a rubbish truck or a fire engine to pass between the parked cars. However, the very reason for the preferred 5.6m-6.0m carriageway width range for the narrower (two car widths) Neighbourhood Streets is so that it is obvious that parking directly opposite another car will block all other vehicles. Drivers then choose to park on the same side of the street as other cars, or in a staggered configuration on the other side. This allows cars and trucks to pass in relatively slow one-way movements.
48. If the carriageway width is greater than 6.0m (and less than 7.9m) there is a real prospect that cars will be parked at the kerbside directly opposite each other and that trucks will not be able to get past. The second acceptable range for the carriageway width (7.9-8.5m) accommodates three car widths so will have sufficient width for trucks to pass in a one-way movement between two parked cars.
49. Further, if the carriageway width is greater than 8.5m there is a possibility that drivers will try to pass between two parked cars in a two-way movement. This is potentially dangerous and if the carriageway were wide enough to safely accommodate two-way movements then the road is then effectively a Local Road and the traffic calming effect of potential one-way movement would be lost. Hence the proposed upper limit (8.5m) to the second range for the Neighbourhood Street carriageway width.
50. As noted above, as a reality check, many local residential streets have traditionally been constructed with 9m wide carriageways. With parking on both sides of these streets two-way movement can be maintained but

⁹ Statement of Evidence of Alastair James Black (Transport), 2 September 2022, Appendix 1, at section 4.7.

many drivers are reluctant to execute the two-way movement and give way to opposing traffic. With a carriageway width of 8.5m or less it is assured that drivers will be conscious of the need to give way where there is parking on both sides And will travel at an appropriately slow speed.

51. With the two potentially different ranges for the carriageway width of a Neighbourhood Street in Table 15-6b, there will be two minimum desirable legal road widths. The first is 12.2m and the second is 14.5m. These can be compared with the minimum desirable legal road width for Local Roads of 16.4m (the width with my recommended changes) or 16.8m (the width recommended in S42A report).

DESIGN CRITERIA FOR PRIVATE ACCESSWAYS

Rear Lane

52. I agree with the latest design criteria for Rear Lanes in Table 15-6b except for a very minor aspect under the heading “Berm requirements” which is specified as N/A (not applicable). As shown by the heading above the last six columns of Table 15-6b, the berm requirements include the “Service corridor.” The service corridor is specified as being on “One side” while the other five potential components of the berm are either labelled as “None” or “Shared space.”
53. The “Legal road width (min desirable)” for rear lanes is shown in the table as being 7m while the “Carriageway width” is shown as 5.5m. I consider that there is potential for there to be a 1.5m wide berm (minimum) which would include the service corridor. Accordingly, the berm would more logically be indicated as being on “one side” as it was in the original Table 15-6b and as it is for private ways in the revised table in the S42A report.
54. A Waka Kotahi submission (10.29) requested that an unspecified maximum length should be applied to rear lanes which Adare opposed in a further submission because of the lack of clarity. During transport conferencing, a length of 250m was discussed and HCC agreed to review the proposal.¹⁰ I support the maximum 250m length for a rear lane which

¹⁰ JWS Planning and Transport (2), 23 August 2022, at 3.6.

is recommended in the S42A Report but expect that most rear lanes will need to be shorter because of potential traffic management issues.

Private Way

55. The notified provisions for private ways in Table 15-6b of PC5 were inconsistent with other sections of the District Plan and did not cover all situations. For example, there were no criteria for private ways serving 1-6 residential units and no criteria for private ways serving between 10 and 20 units where access is part of a fee simple subdivision (as opposed to via common property under unit Titles Act).
56. I support the revised design criteria provisions for private ways which are recommended in the S42A report, including the two separate categories for private ways serving 1-6 units and 7-20 units irrespective of the subdivision status. The category for 1-6 units requires a 3.5m wide carriageway in a 4m wide legal right of way. For 7-20 units the carriageway width is specified as 5.5m within a right of way width of 6m. In Table 15-6b the latter category of private way still has a qualifier “(via common property under Unit Titles Act)” which I understand from the transport conferencing was not required and should be deleted.¹¹ I support this change being made.

MEDIUM DENSITY RESIDENTIAL STANDARDS

57. Mr Black refers to three potentially adverse transport effects of medium density development.
58. The first is the effect of more frequent vehicle crossings on pedestrian and cyclist safety. This leads to his support of the revised 50m minimum separation distance standard between driveways on Minor Arterial Roads with separated cycleways. The notified rule 25.14.4.1a(v) included all roads with separated cycleways so also included Collector Roads.
59. Adare submitted against the notified rule requesting its deletion. I support the recommended changes to only apply the 50m separation distance as a standard for Minor Arterial Roads and to modify the assessment criteria so that the number of vehicle crossings over separated cycleways and

¹¹ JWS Planning and Transport (2), 23 August 2022, at 3.6.

shared paths are required to be minimised and so that transport corridors must be designed having regard to the safety of pedestrians and cyclists (Appendix 1.3.3, P5(l)). The assessment criterion would apply to both Minor Arterial Roads and Collector Roads with separated cycleways and shared paths.

60. The second issue relates to driveway parking obstructing footpaths. I understand that the original setback in PC5 for garage doors was to be a minimum of 1.5m from the transport corridor boundary. Mr Black's concern I believe is that if a garage door is located 3m (for example) from the boundary then people may park in front of the garage with the rear of the car potentially obstructing the footpath. Whereas people are less likely to park in front of a garage that is only 1.5m from the boundary. He proposes in his evidence that MRZ-PREC1-PSP:R38 is modified to "carparks are set back either 1.5m or more than 5m from the transport corridor boundary."
61. The changes which are recommended in the S42A report refer to "garage doors or carports must either be setback 1.5m, or 5m or greater, from the transport corridor boundary." In my opinion the reference to garage doors or carports is clearer than Mr Black's reference to carparks. Accordingly, I agree with the changes recommended in the S42A report.
62. Mr Black's third concern about medium density development effects is garbage bins obstructing footpaths. I share this concern and support his proposal for the inclusion of assessment criteria requiring consideration of how bins can be accommodated by the proposed transport corridor designs (Appendix 1.3.3, P5(x)).

INDICATIVE KEY LOCAL TRANSPORT NETWORK

63. Adare made a submission (Submission 53.93) seeking for an additional link in the "Indicative Key Local Transport Network" to be shown on the Peacocke Structure Plan (Figures 2-1 and 2-2) between Peacockes Road and Peacockes Lane. This submission has been accepted by HCC.
64. The JWS for Planning and Transport records that the Planner for Cordyline Holdings Ltd (Ms Rachel Dimery) opposed the inclusion in the Indicative Key Local Transport Network on the structure plan in

conferencing, instead preferring a symbol indicating an indicative point of access on Peacockes Road. I see no reason to introduce a new notation for the structure plan when the existing Indicative Key Local Transport Network notation can be used to confirm that a road link will provide access to the properties on the western side of Peacockes Road from both Peacockes Road and Peacockes Lane.

65. The road access to Peacockes Road could potentially be located further south through the Cordyline land. I understand the purpose of the indicative road is that its exact location will be confirmed at subdivision consent stage and that minor shifts such as this can be accommodated. The important factor for the affected land owners is to have the potential for access identified even if the final location is only indicative because the design for the upgrading of Peacockes Road to Minor Arterial standard does not allow for many side road intersections.
66. The JWS for Planning and Transport raises the prospect identified by Ms Dimery of a road linking north from Whatukoruru Drive to the Cordyline property behind the adjacent school (“Indicative Education Facility”) site shown on the Peacocke Structure Plan (Figure 2-1). I consider that it would be desirable to have access to the school provided from a Local Road rather than from the two Minor Arterial Roads that bound the site. I would support the Indicative Key Local Transport Network also being extended to connect to Whatukoruru Drive in the manner suggested.

PUBLIC TRANSPORT

67. Adare submitted on rule SUB-PREC1-PSP:R25 that required the locations of bus stops to be agreed with the Waikato Regional Council (**WRC**). The JWS for Planning and Transport records that there was agreement through conferencing that the rule should be deleted and replaced with suitable assessment criteria.¹² I am satisfied with the proposed changes.
68. WRC submitted (36.75) that additional bus stop locations needed to be shown on the Peacocke Structure Plan. I agree that additional bus stops

¹² JWS Planning and Transport (1), 19 August 2022, at 3.2.

should be shown on Peacockes Road south of the Local Centre but not north of the Local Centre where sufficient stops are already identified. I agree with the changes that are recommended to the Peacocke Structure Plan (Figure 2-2) in the S42A report.

69. Waka Kotahi submitted (10.21) on policy LCZ-PREC1-PSP:P17 (now referenced as LCZ-PREC1-PSP: P13 in the S42A report provisions) seeking to modify the wording to read “Incorporate public transport stops into the local centre.” Adare made a further submission (10.10) opposing locating bus stops within the Local Centre because of the inefficiency associated with buses manoeuvring into and out of the centre. While HCC has noted in response to Waka Kotahi’s submission that the Proposed Public Transport Hub is being designed with bus stops on Peacockes Road near to the Local Centre, it has recommended acceptance of Waka Kotahi’s proposed wording. However this change is not reflected in the amended text in Chapter 6B.
70. I am aware that the Proposed Public Transport Hub is currently being designed by HCC with bus stops on Peacockes Road. The Proposed Public Transport Hub is currently shown on the Peacocke Structure Plan on Peacockes Road, adjacent to but outside the Local Centre. which is an appropriate location. In order to avoid any further confusion, I consider that more appropriate wording for the policy is “Provide a Public Transport Hub for the Local Centre in accordance with the Peacocke Structure Plan.”

JONES LAND SUBMISSION

71. Jones Land Ltd submitted (13.5) that the Peacockes Road overbridge of the future North-South Arterial (Southern Links) shown on the Peacocke Structure Plan Transport Network plan (Figure 2-2) should be deleted and that Peacockes Road should be partially closed or diverted.
72. Adare opposed this in a further submission because of the potential adverse effect there could be on access from Peacockes Road to the south. Adare proposed that if there were to be any change to the structure plan, then it should be to include a full intersection (an interchange or roundabout) between Peacockes Road and the North-South Arterial to

improve access from Peacockes Road to the south of the City (via the Southern Links to State Highways 1 and 3).

73. HCC have recommended rejecting the Jones Land Ltd submission but no response has been provided by HCC to the alternative suggestion made in Adare's further submission. I support the rejection of the Jones Land submission. I anticipate that Waka Kotahi and HCC will give further consideration to the form of the North-South Arterial, including urban roading connections to it, as part of the future design and analysis phases for the Southern Links.

LOCAL/NEIGHBOURHOOD CENTRE ACCESSWAYS

74. Rule SUB-PREC1-PSP:R23 (now referenced as SUB-PREC1-PSP:R24 in the S42A report) includes minimum widths for private ways for the Local and Neighbourhood Centres. Adare submitted (53.79) on this rule proposing narrower widths for clauses (5), (6), (7) and (8) on the basis that they would be unnecessarily space consuming.
75. In the summary of submissions provided with the S42A report it was recommended that the Adare submission should be rejected. However, in his evidence Mr Black states in relation to the accessway widths addressed by the Adare submission "I understand that these are based on current subdivision standards for business and industrial zones (Rule 23.7.6). I am not aware of these current standards being applied to recent subdivisions in the business zones, and only very infrequently within the industrial zone. They do not appear relevant for subdivision of the local centre or neighbourhood centres in Peacocke. I recommend that clauses ((5), (6), (7) and (8)) are deleted."
76. I support Mr Black's recommendation to delete the standards.

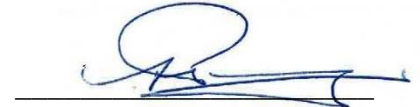
CONCLUSION

77. Having considered all of the transport related matters that have been raised in submissions, participated in the transport conferencing and reviewed the recommendations in the S42A report related to these matters, I have reached the following conclusions:

- (a) First, I note that through the planning process to date many of my concerns regarding the design criteria for transport corridors have been resolved.
- (b) In that regard the addition of detailed design criteria for the Minor Arterial road, Open Space Edge Road and Neighbourhood Street categories as specified in Table 15-6b has been most important. There are however some design criteria particularly those specified for the Neighbourhood Street category which I have concluded could be improved from a road safety perspective and from the perspective of encouraging walking and cycling. I have indicated these changes and also minor changes/corrections that I consider should be made to the S42A version of Table 15-6b to improve consistency, to improve understanding and to achieve better design criteria.
- (c) In general the road design criteria associated with the S42A report already would help to avoid unnecessarily wide road corridors that would not be consistent with the policies relating to promoting the attractiveness and safety of walking and cycling (as well as the efficient use of land). However in my opinion the further modifications that I have outlined in my evidence would result in even safer and more attractive transport corridors.
- (d) I accept that the medium density residential development will create some issues for traffic management and road safety, for example closely separated driveways, reduced setbacks for garages and more rubbish bins to be accommodated and emptied in the transport corridors. However I have concluded that appropriate rules and assessment criteria have been recommended that will help to reduce the adverse road safety and inconvenience effects involved.
- (e) I am confident that the addition to the Indicative Key Local Transport Network that has been recommended for inclusion in the PC5 structure plan will be able to be refined during the design development phase to ensure appropriate access for the development of land on the west side of Peacockes Road.

- (f) I support most of the S42A report recommendations for PC5 relating to public transport. However the recommendation relating to the public transport hub adjacent to the Local Centre in response to a submission made by Waka Kotahi is confusing and needs to be clarified in my opinion.
- (g) I agree with the S42A recommendation to reject the Jones Land submission that requested the partial closure of Peacockes Road at the North-South Arterial.
- (h) I have concerns about some of the standards associated with Local/Neighbourhood Centre Accessways, but those would be resolved if the recommendations by Mr Black to delete the relevant standards are translated into the final version of PC5.

Dated this 16th day of September 2022



Tony Penny

Appendix 1 – Proposed Amendments to Table 15-6b

Red – Peacocke SP as notified
 Green – s42A report proposed changes
 Blue – MDRS provision changes
 Purple – Tony Penny proposed changes

Appendix 15: Transportation

Table 15 – 6b: Criteria for the form of Transport Corridors in the Peacocke Structure Plan (Changes are all Sub 10.29/ 13.14/ 14.13 – same changes requested)

Transport corridor type ¹	Land use environment ²	Design speed environment (max desirable)	Legal road width (min desirable) ³	Carriageway width ⁴	Movement lane width ⁵	Berm requirements ⁶ (min desirable)	Berm requirements ⁷					
							On street parking and landscaping/stormwater management		Passenger public transport requirements (min desirable) ¹¹	Footpath requirements (min desirable) ¹²	Cycle path requirements (min desirable absolute minimum)	Service corridor (min desirable) ¹³
							On street parking requirements (min desirable)	Stormwater management and landscaping				
Peacocke Residential Land Use Environment												
Private Way	Residential (low density - two way)	10-20km/h	7m	5.5m	1 or 2 way flow, not marked	One side N/A One side	None	None	None	Shared zone	Shared zone – no dedicated facility	One side
Private Way	Residential (servicing 1-3 units)	10km/h	4m	3.5m	2 way flow, not marked	One side	None	None	None	Shared zone	Shared zone – no dedicated facility	One side
Private Way	Residential (servicing 7-20 units - via common property under Unit Titles Act) or 2-3 units where access is part of a tenement subdivision	10 to 20km/h	6.9m	5.5m	2 way flow, not marked	1.5m - both sides One side	None	None	None	Shared zone	Shared zone – no dedicated facility	1.5m - both sides One side
Park Lane	Residential	30km/h	11.8m ⁷	6m 5.6m	2 way flow, not marked	3.3m and 0.4m 2.5m berms	Recessed parallel parking bays (2.1 m) on one side	Specific Design	None	1.8m wide footpath, one side	Cycling on road shared in movement lane	1.5m one side
Neighbourhood Street	Residential ¹⁰ (servicing up to 20 units or up to 100m long)	30-20 km/h	14.3m 12.2m ⁷ or 14.5m ⁷	5.6m-6.0m ¹³ or 7.9-8.5m ¹⁴	2 way flow, restricted to 1 way by kerbside parking not marked	3.3m both sides	Recessed parallel parking bays (2.1 m) on one side Kerbside parking on either side	Where parking is not provided - Specific Design ¹⁶ (2.1m wide) on one side	None	1.8m wide footpath on one side at least, both sides	Cycling on road shared in movement lane	1.5m both sides
Local	Residential	30km/h	16.8m ⁷ 16.4m ⁷	6m 5.6m	2 way flow, not marked	5.4m both sides	Recessed parallel parking bays (2.1m) on both sides	Where parking is not provided - Specific Design (2.1m) on both sides	None	1.8m wide footpath, both sides	Cycling on road shared in movement lane	1.5m both sides
Collector – PT Route	Residential	40 km/h	24.6m ⁷ 23.2m ⁷ or 21.9m ⁷ with bi-directional cycleway	6.8m 6.4m	2 @ 3.4m 3.2m marked	8.8m 8.4m or 9.9m and 5.6m with bi-directional cycleway	Recessed parallel parking bays (2.1m) on both sides	Alternating where parking is not provided - Specific Design (2.1m) on both sides	All bus stops to be in lane 2.8m 2.9m berm with bus shelter.	2m wide footpath, both sides	2m off road, separated from carriageway, both sides. With 0.8m separator from parking. Or 3.5m bi-directional off-road separated from carriageway on one side With 0.8m separator from parking. ^{9,2}	2m 1.5m both sides
Collector – Non-PT Route	Residential	40 km/h	24.2m ⁷ 22.8m ⁷ or 21.5m ⁷ with bi-directional cycleway	6.4m 6.0m	2 @ 3.2m 3.0m marked	8.9m 8.4 or 9.9m and 5.6m with bi-directional cycleway	Recessed parallel parking bays (2.1m) on both sides	Alternating where parking is not provided - Specific Design (2.1m) on both sides	N/A	2m wide footpath, both sides	2m off road, separated from carriageway, both sides. With 0.8m separator from parking. Or 3.5m bi-directional off-road separated from carriageway on one side. With 0.8m separator from parking. ^{9,2}	2m 1.5m both sides
Minor Arterial ¹	Residential (Managed or limited direct access) ¹⁴	50-60km/h	32.2m. Subject to Specific Design ^{8,a}	10.0m	2 @ 3.5m, marked, plus 3m flush median	11.5m 11.1m Subject to Specific design ^{8,a}	Recessed parallel parking bays (2.3m) on both sides	Specific Design (2m wide) on both sides ^{8,a}	All bus stops to be kerbside. Potential for bus priority at intersections	2.0m footpath on both sides	2.3m off road, separated from carriageway, both sides. With 1.0m separator from parking	1.5m both sides

Note 1: This width does not provide for swales or stormwater management. Additional width may be required for these features, if present.

Note 2: Use of a bi-directional cycleways shall include an assessment that shows the design minimises and manages the risks associated with two-way movement, otherwise single-direction cycleways on each side of the road shall be required.

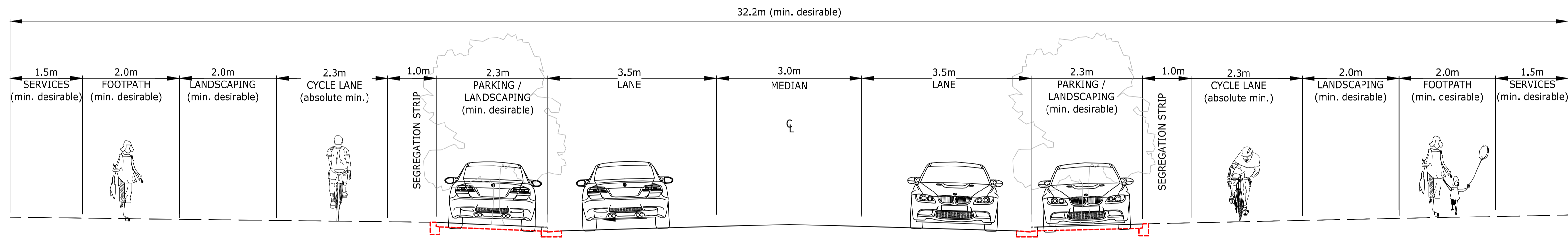
Footnotes

1. New minor arterial transport corridors are likely to be designed with the final design undertaken on a case-by-case basis. For work involving significant changes to existing transport corridors, local constraints, land use environment and network function requirements may require design compromises whereby the minimum desirable design criteria may not be able to be met.
2. Refer to Table 15-4a for which zones form land use environments
3. Measured from the face of the kerb to the face of the opposite kerb (excluding any recessed parking **but includes any separated cycle facility**)
4. Full transport corridor width
5. Measured from the property boundary to the face of the kerb. **Berm** width will vary in order to accommodate features as required, including: lighting, noise attenuation, landscaping, street trees, swale drains, footpaths, shared paths, cycle lanes, cycle paths, recessed parking. Landscaping or street trees will require a minimum width of 2m and be incorporated into the legal road width (typically replacing indented parking or medians). A berm width wider than that indicated in Table 15-5b may be required to accommodate indigenous trees.
6. Location of services will be dependent upon the location of the footpath. The Regional Infrastructure Technical Specifications contain relevant guidance on locating services.
7. This width does not provide for swales or stormwater management. Additional width may be required for these features, if present.
8. Specific design requires case by case consideration of the design elements in the local context. This must be undertaken with input from Council's City Infrastructure engineers.
9. Use of a bi-directional cycleways shall include an assessment that shows the design minimises and manages the risks associated with two-way movement, otherwise single-direction cycleways on each side of the road shall be required.
10. The neighbourhood street design guide can be used for a cul-de-sac up to 150m in length or a road with dual connectivity up to 250m in length provided that there is little or no through traffic.
11. For guidance on bus stop types refer to the Regional Infrastructure Technical Specifications. The design of kerb side bus stops will result in the positioning of a stopped bus partially or fully within the cycle or movement lane. This may require kerb extensions to achieve. Bus stops and other elements of public transport infrastructure are only necessary if part of a bus route.
12. For guidance on pedestrian crossing facilities refer to the Regional Infrastructure Technical Specifications.
13. Appropriate for carriageways accommodating two car widths.
14. Appropriate for carriageways accommodating three car widths.
15. Excluding shoulders
16. Where a footpath is only provided on one side there should be an equivalent increase in the landscaping.

Appendix 2 – Cross-section diagrams

NOTES

1.



I MINOR ARTERIAL
SCALE 1:50 (A1) 1:100 (A3)

1	FOR INFORMATION	MBT	16.09.22
REF	REVISIONS	BY	DATE

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PEACOCKE RD HAMILTON**

TITLE:
**TYPICAL SECTIONS
MINOR ARTERIAL ROADS**

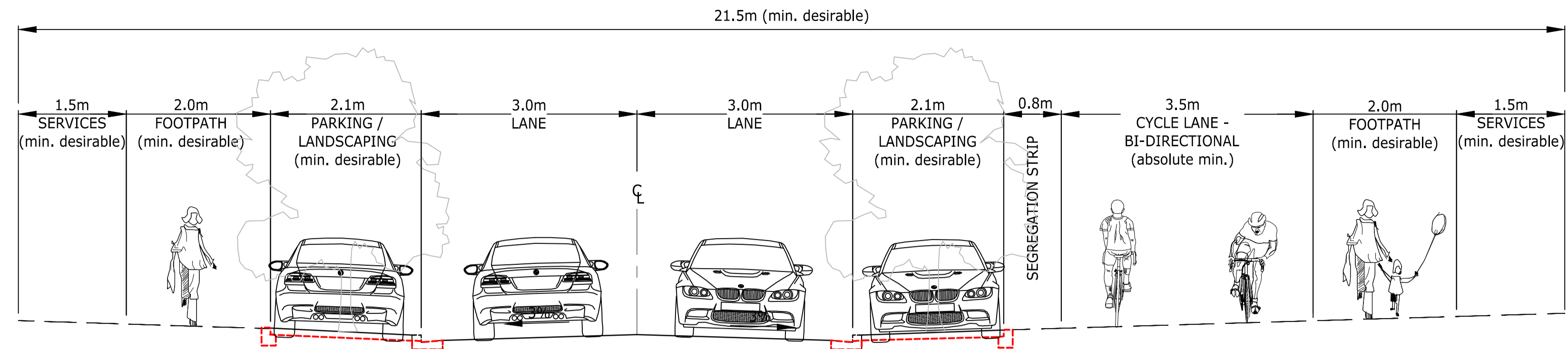
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DRAWN:	DATE:	SIGNED:	PLOT DATE:
	16.09.22	M.TORCKLER	16.09.22
CHECKED:	DATE:	SIGNED:	SURVEY BY:
APPROVED:	DATE:	SIGNED:	SURVEY DATE:

ISSUE STATUS: **FOR INFORMATION**

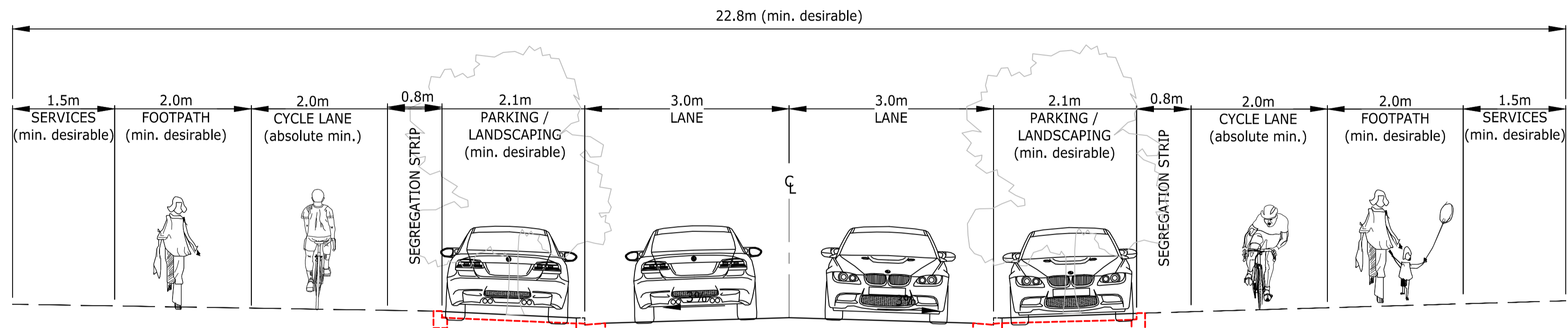
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DRAWING No:		REV
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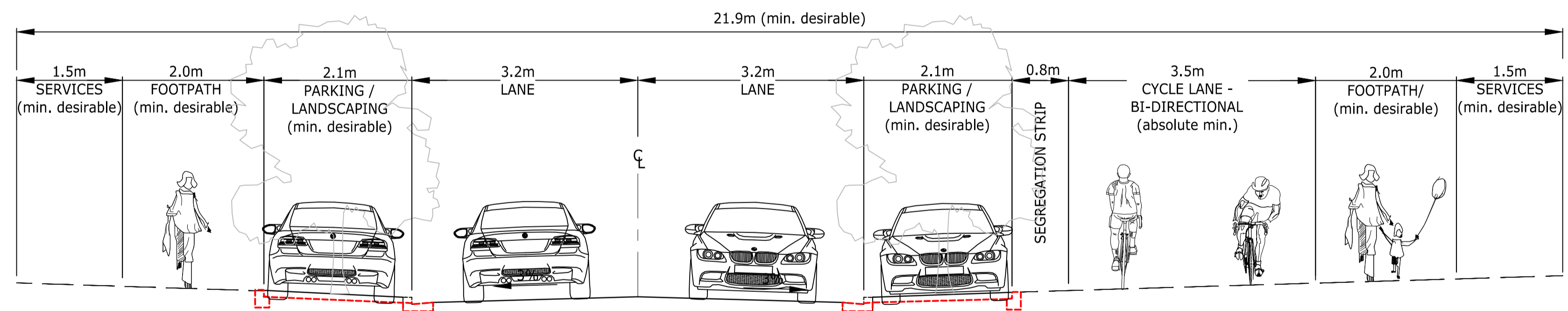
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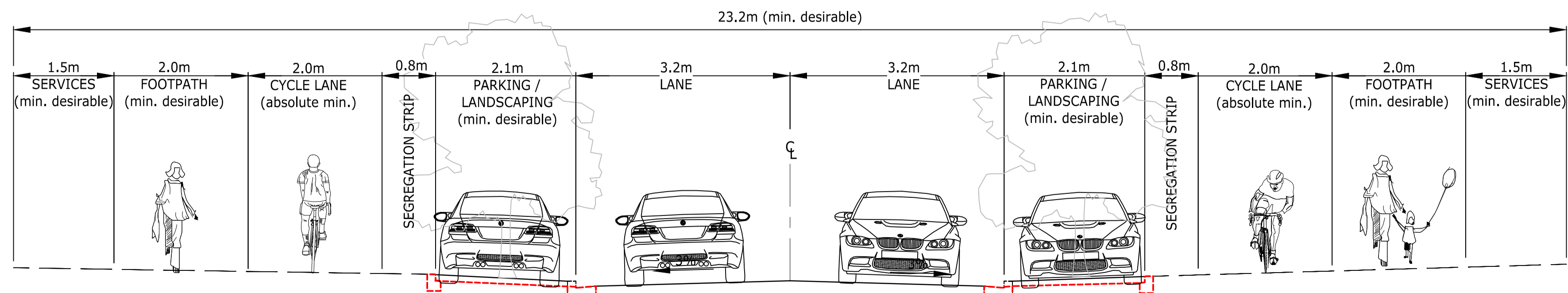
E COLLECTOR ROAD - NO-PT - BIDIRECTIONAL CYCLE LANE
SCALE 1:50 (A1) 1:100 (A3)



F COLLECTOR ROAD - NO-PT
SCALE 1:50 (A1) 1:100 (A3)



G COLLECTOR ROAD - WITH-PT - BIDIRECTIONAL CYCLE LANE
SCALE 1:50 (A1) 1:100 (A3)



H COLLECTOR ROAD - WITH-PT
SCALE 1:50 (A1) 1:100 (A3)

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APPROVED:	DATE:	SIGNED:	SURVEY DATE:

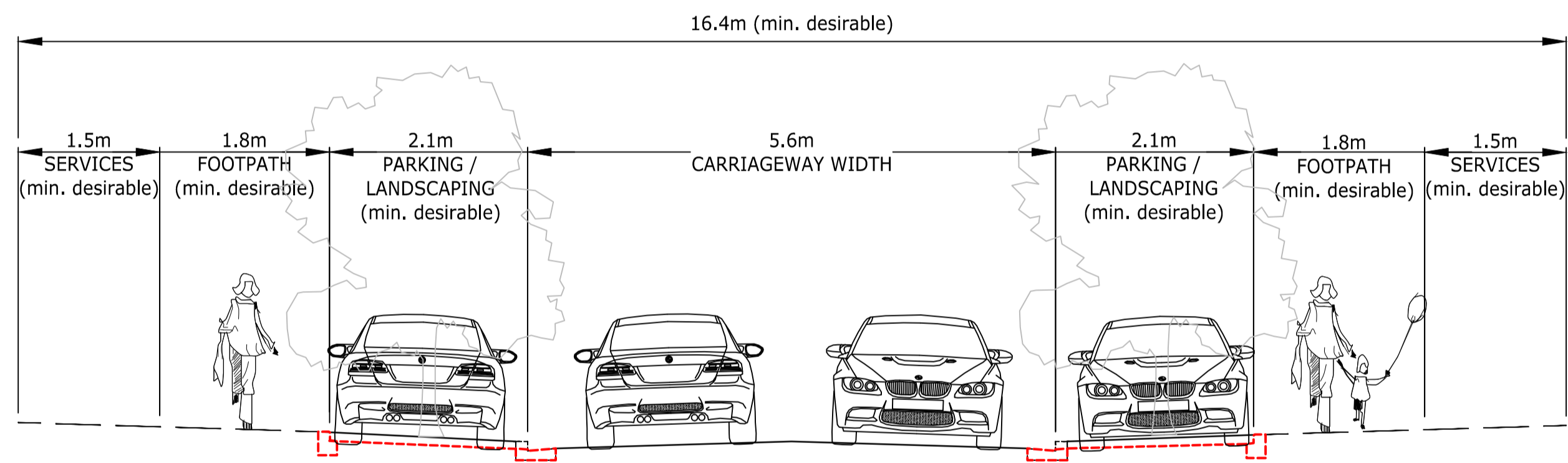
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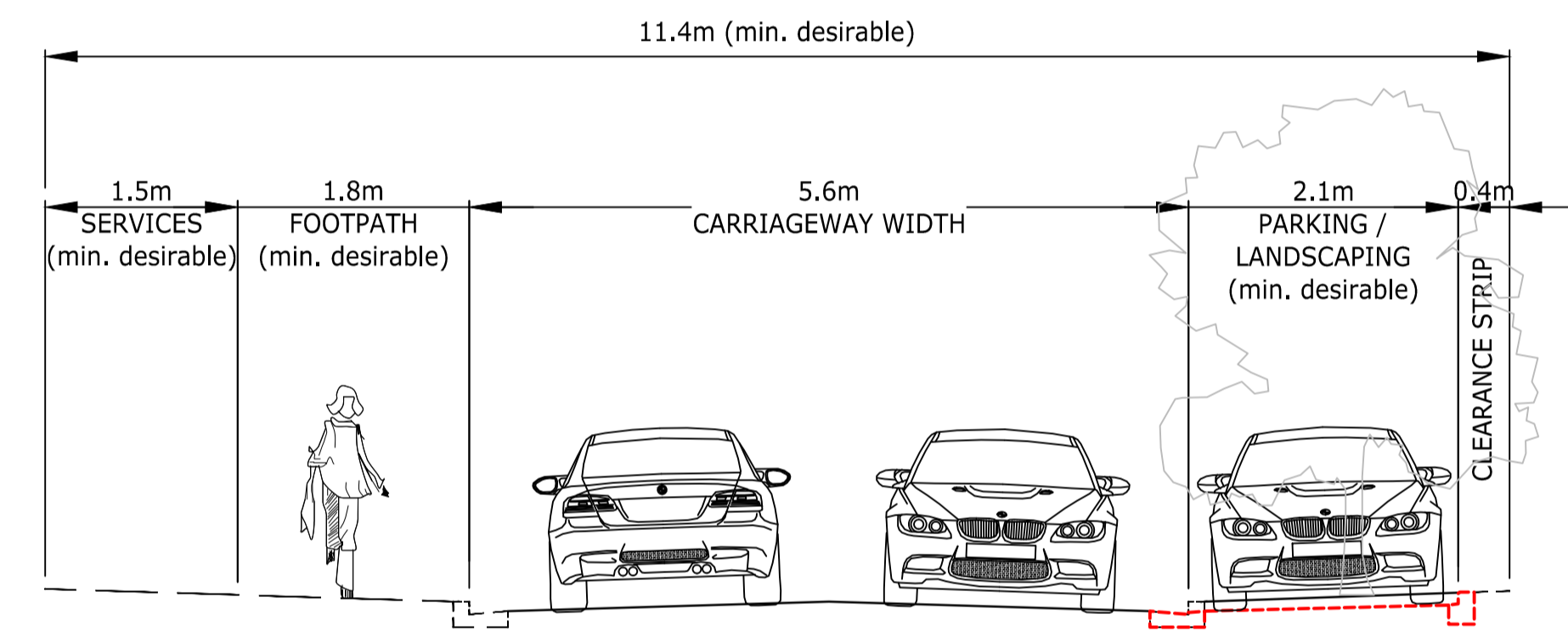
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NOTES

1.



C LOCAL ROAD - TYPICAL CROSS SECTION
SCALE 1:50 (A1) 1:100 (A3)



D OPEN SPACE EDGE ROAD - TYPICAL CROSS SECTION
SCALE 1:50 (A1) 1:100 (A3)

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APPROVED:	DATE:	SIGNED:	SURVEY DATE:

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NOTES

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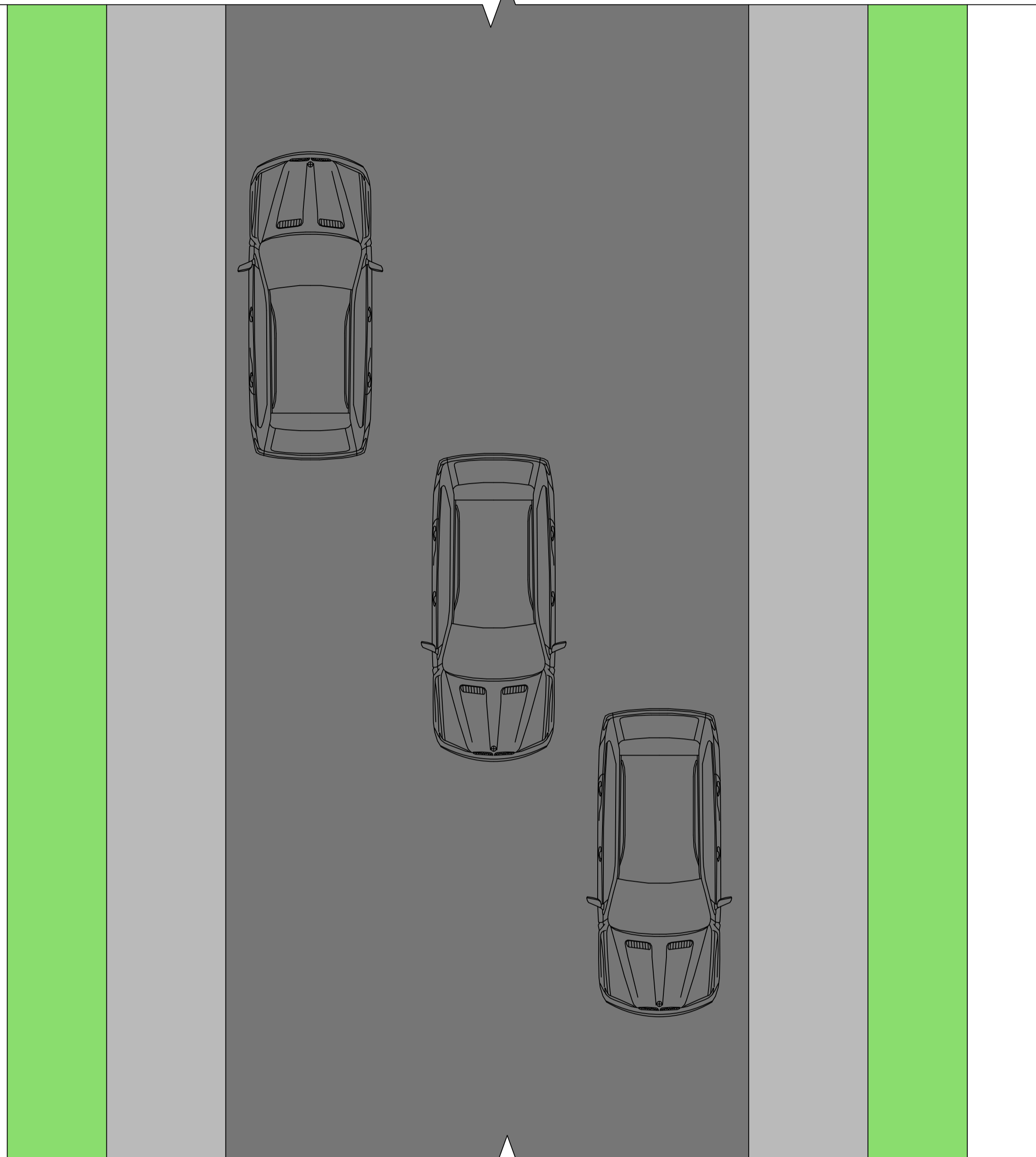
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NEIGHBOURHOOD ROADS

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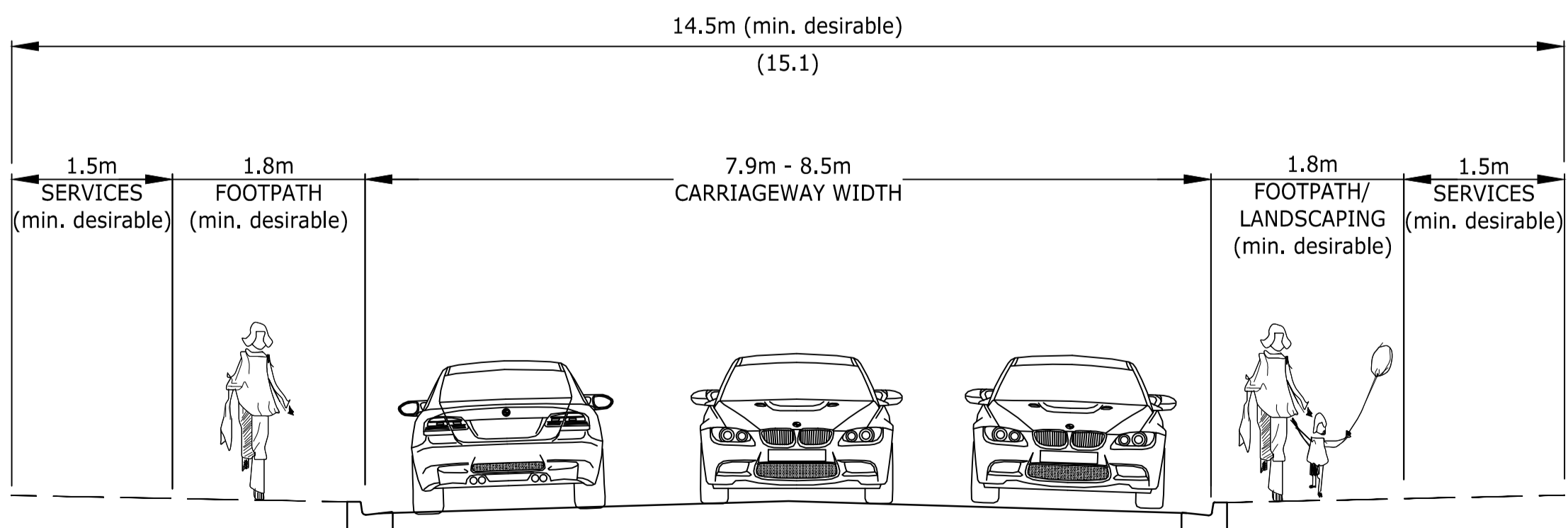
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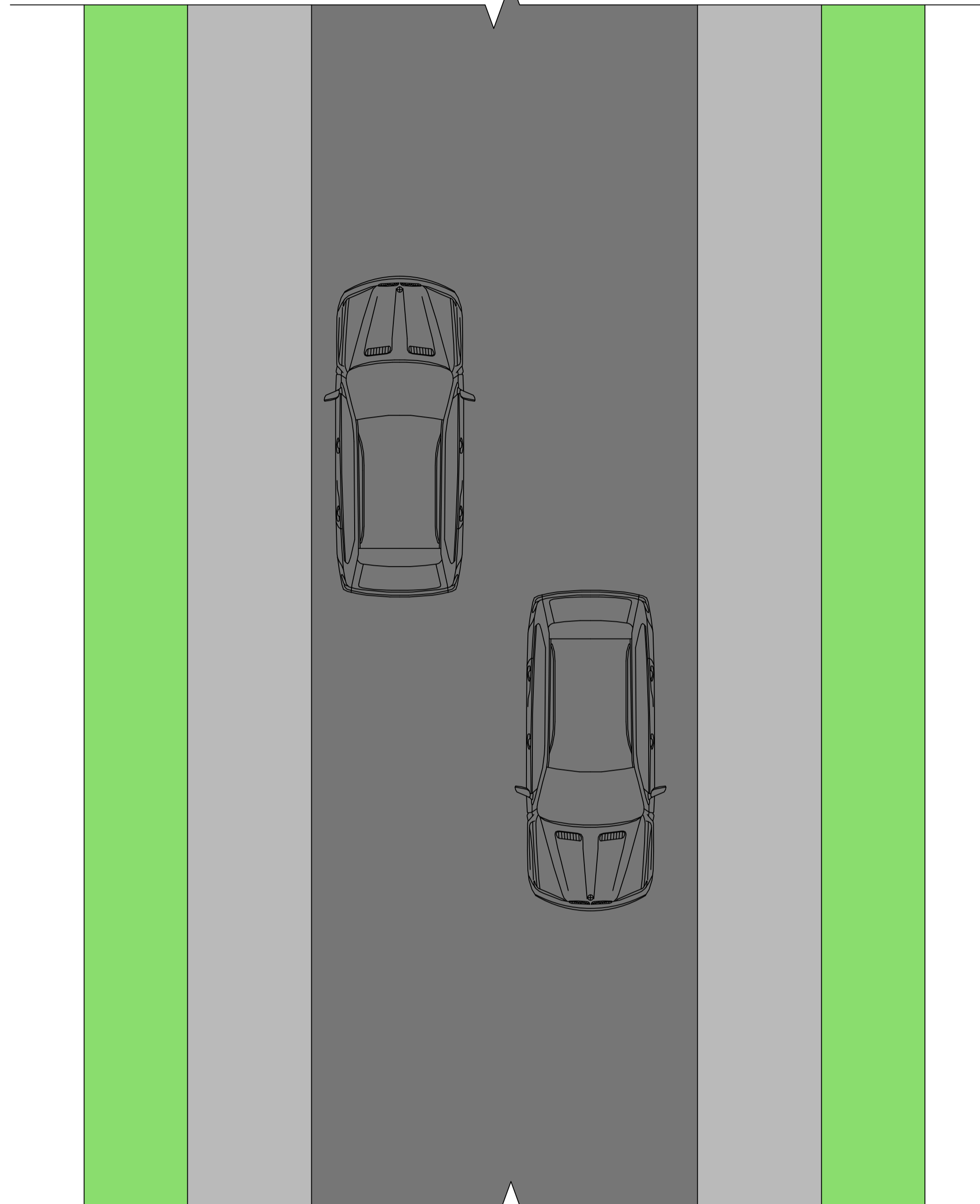


PLAN VIEW

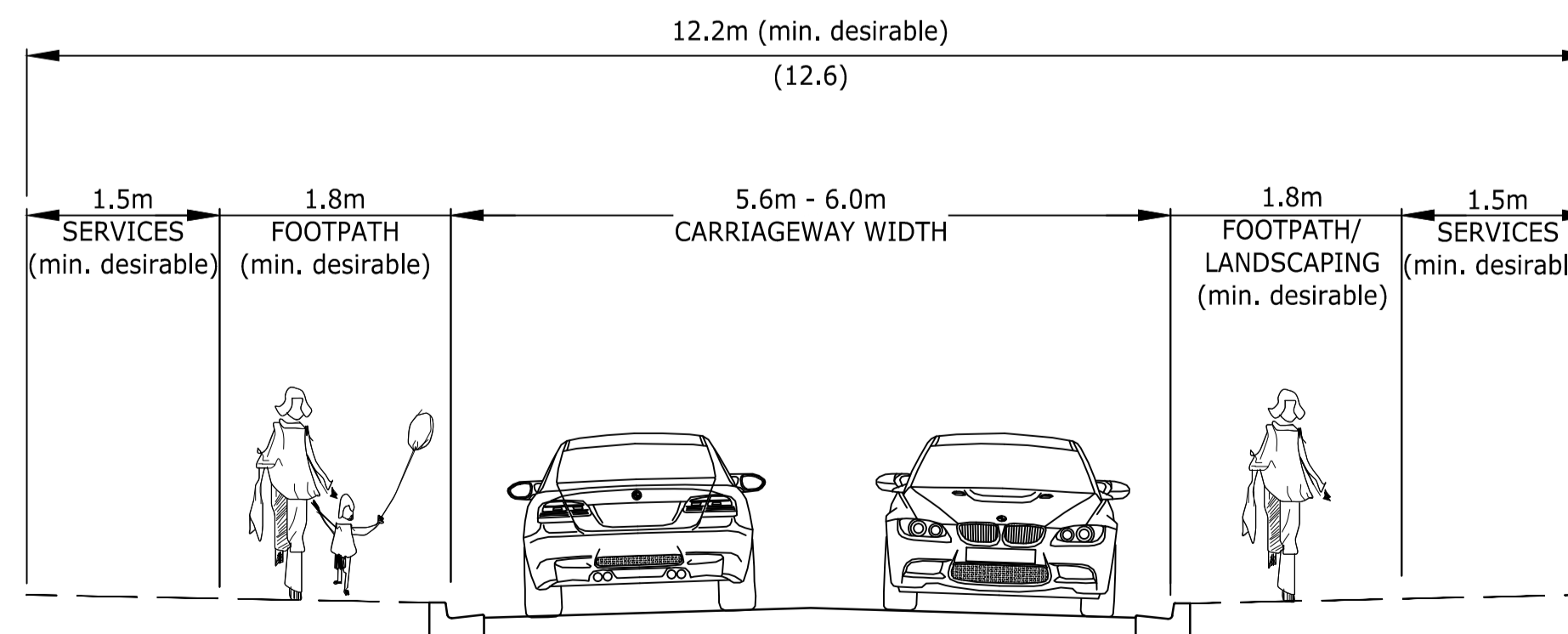


TYPICAL SECTION

A NEIGHBOURHOOD STREET - 3 CAR WIDTH
SCALE 1:50 (A1) 1:100 (A3)



PLAN VIEW



TYPICAL SECTION

B NEIGHBOURHOOD STREET - 2 CAR WIDTH
SCALE 1:50 (A1) 1:100 (A3)