Luke Benner Consulting

TRANSPORTATION ENGINEERING

TRAFFIC IMPACT ASSESSMENT

758 High Street, Lower Hutt

Document Control

Report Name	Traffic Impact Assessment – 758 High Street, Lower Hutt
Project Name	Retirement Village
Document Status	FINAL – For Issue

Revision History

Revision No.	Date	Prepared By	Reviewed By	Approved for Issue By
3.0		Luke Benner	N/A	Luke Benner

Issue Register

Distribution List	Date Issued	Number of Copies
Urban Edge Planning Limited	4 November 2021	1

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1.0 Introduction

This Traffic Impact Assesment (TIA) has been prepared to assess the transportation effects of a proposed 51 unit Retirement Village Development at 758 & 760 High Street, Lower Hutt. The TIA has been prepared following various meetings between the applicant & Hutt City Council, identifying the need to assess the impacts of the proposed development on the local transport network and its compliance with the District Plan rules.

In summary it has been concluded that the effects of the proposed Retirement Village are less than minor. As such it is considered there are no transportation reasons why the resource consent cannot be granted and no mitigations of effects is required.

2.0 Site Location

The site is located at 758 & 760 High Street as shown in Figure 1. The site is generally flat in nature and square in shape. The site currently operates as Ropata Village, a boutique retirement village made up of a number of individual apartments being mostly across a single level.

The site has a wide frontage onto High Street of approximately 65m with two wide vehicle crossings to the site positioned to the northern and southern extents of the site. The vehicle crossing to the north provides joint vehicle access 758 & 760 High Street whilst the vehicle crossing to the south provides a second access to 758 High Street while also providing access to 756 High Street

The site is zoned general residential as defined within the Hutt City Operative District Plan, with the immediate surrounding area also zoned residential

Figure 1: Site location, 758 & 760 High Street

3.0 Existing Roading Network

3.1 Physical Environment

High Street is classified as an arterial route, under chapter 14 – Appendix Transport 3, Transport Network Hierarchy. As noted in chapter 14, table 1-1 “These roads make a significant contribution to social an economic wellbeing, linking regionally significant places, industries, ports or airports. They may be the only route available to important places in a region, performing a ‘lifeline’ function.” Source – City of Lower Hutt District Plan

High Street is urban in nature along its length, with a posted speed limit of 50km/h past the proposed Retirement Village. Along the immediate road frontage of the site there are existing P180 parking restrictions in place, with this extending for the equivalent of 6 parallel parking spaces north to in front of 768 High Street.

The existing cross section of High Street in the vicinity of the site is shown in figure 2. This road cross section extends south to the edge of the Lower Hutt CBD, whilst approximately 450m to the north of the site the road layout changes as shown in figure 3.

Figure 2 – Existing High Street cross section (Looking south)

Figure 3 – High Street cross section 450m north of 758 High Street (Looking south)

3.2 Traffic Volumes

Hutt City Council regularly monitors traffic volumes at a range of locations within the city. High Street within the vicinity of the site is estimated to have an ADT (Annual Daily Traffic Count) of 6,473 as at the 22nd May 2021 with the 2% or 129 being heavy vehicles. Source (Mobile Road).

In reviewing traffic volumes to the north and south along High Street, they generally increase towards the CBD which is consistent with the location and function of the road network in this area leading to higher trip generation rates.

3.3 Road Safety

The safe system approach to road safety focuses on reducing deaths & serious injuries. The NZTA crash analysis system has been reviewed to identify crashes along the High Street corridor over the past 5 years, this includes the first 3 months of this year since 1 July. There has been 238 reported crashes in total over this period along High Street with these broken down as follows:

- Fatal (0)
- Serious (7)
- Minor (54)
- Non Injury (177)

For the purposes of understanding the crash frequency along High Street, the 238 reported crashes have been broken down by year as shown in table 1 below:

Crash Year	Serious	Minor	Non-Injury	Totals
2020/2021*	2	15	29	46
2019/2020	1	7	32	40
2018/2019	1	15**	31	47
2017/2018	0	10	44	54
2016/2017	3	8	41	52

Table 1 – Five year crash data broken down by year

- *= includes first three months of 2021/22
- **= One of these occurred in a supermarket carpark

As shown in table 1 there is a declining crash rate along High Street with 13% less crashes occurring during financial year 2020/21 when compared to financial year 2016/17 with 97% of the crashes over the five year period resulting in minor or no injuries.

To assist in understanding the crashes that have occurred along High Street, a more detailed analysis of the crashes within 500 metres to the north and south of the site has been undertaken. Over the five year period approximately 64 crashes have occurred with the most common crash types listed below:

- 21 rear end crashes (11 minor-injury, 10 non-injury)
- 10 crashes involving parked vehicles or vehicles parking (3 minor-injury, 7 non-injury)

- 8 crashes involving right turning vehicles (2 minor-injury, 6 non-injury)
- 6 loss of control crashes (1 minor injury, 5 non injury)
- 5 crashes involving vulnerable road users (4 minor-injury, 1 non-injury)
- 4 crashes involving merging (2 minor injury, 2 non injury)

To gain a greater understanding as to the frequency of crashes and the long-term crash record of High Street, a high level review of crash volumes has been undertaken looking back over the past decade. As shown in figure 4, crash volumes were at their highest in the 2011/2012 financial year with crash numbers reducing thereafter before peaking again in in the 2015/2016 financial year with a steady decrease since this time with crash volumes reducing over 30% over the past decade.

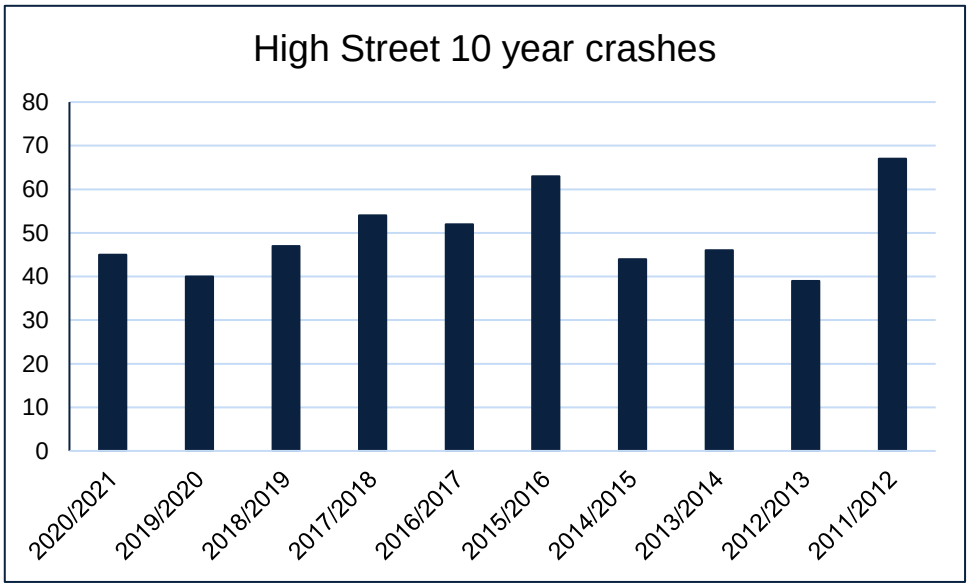


Figure 4 – 10 year crash record, High Street.

4.0 Sustainable Transport

4.1 Walking & Cycling

There are wide footpaths on both sides (refer to figures 2 and 3) of High Street which extend across its full length providing good pedestrian access north and south, with the Lower Hutt CBD being within 2km of the site. Just to the south of the site there is a formal pedestrian crossing (see figure 5) with an adjacent pathway between neighbouring properties offering a safe connection from High Street through to Dyer Street and beyond to the Beltway Cycleway on Oxford Terrace.

The Beltway cycleway extends north-south along Oxford Terrace connecting to Waterloo Station and through to Taita along the northern section of High Street with completion of this section in mid-2021, "The route, when completed, will eventually run from Taita to Seaview along High Street and Oxford Terrace adjacent to the Hutt Rail Line and, over time, will provide additional links to form a connected Lower Hutt cycling network between residential areas, workplaces, the hospital, schools and recreation areas." Source – Hutt City Council Website.

As shown in figure 6 there are three potential routes between 758 High Street and the Beltway Cycleway on Oxford Terrace for pedestrians and people on bikes to use with these all being through low traffic areas.

There are currently no dedicated cycling facilities along High Street within the vicinity of the proposed Retirement Village Development.

Figure 5 - Pedestrian crossing facility across High Street and pathway to Dyer Street south of the site.

Figure 6 – Potential routes between 758 High Street and the Beltway Cycleway

4.2 Public Transport

High Street is well served by public transport with four bus routes (including 1 midnight service) extending across its length with services operating to various frequencies throughout the day. Details regarding the four bus routes serving High Street are provided below:

- **Route 120** (Lower Hutt – Epuni – Taita – Stokes Valley)
  Frequency: 10-15 min daytime & 15-60 min evenings & weekends

- **Route 121** (Seaview – Lower Hutt – Naenae – Stokes Valley Heights)
  Frequency: 30-60 min all day

- **Route 110** (Petone – Lower Hutt – Upper Hutt – Emerald Hill)
  Frequency: 10-15 min daytime & 15-60 min evenings & weekends

- **Route N22 After Midnight** (Wellington – Naenae – Stokes Valley – Upper Hutt)
  Frequency: Operates 1 service on Saturday & Sunday mornings

There are currently four bus stops within 150m of the proposed retirement village as illustrated in figure 7, with two of these bus stops having modern bus shelters in place. As highlighted above there are currently three regular bus routes serving High Street with the routes 110 & 120 being the most frequent offering a good level of service to bus users throughout the day, noting that the route 110 also extends through to Upper Hutt offering users a reliable way to travel beyond Lower Hutt.

Figure 7 – Proximity of bus stops to the site

5.0 Development Proposal

5.1 Development

The proposed Retirement Village Development comprises of 51 apartments consisting of a mix of mostly 1 and 2 bedroom with some 3 bedroom apartments proposed, with the proposed quantities of each listed below. The Retirement Village will also have some communal areas and supporting facilities including swimming pool, gym and café. The café will be for residents and their visitors and will not be open to the public. Shown below as figure 8 is the proposed site plan.

- 16 one bedroom apartments
- 31 two bedroom apartments
- 3 three bedroom apartments

Figure 8 – Proposed Retirement Village Site Layout

5.2 Site Access & Manoeuvrability

As shown in figure 9, there will be one vehicle access point for the proposed retirement village with the width of the existing vehicle crossing being increased to over 8 metres, exceeding the minimum required entry width as set out in table 3.2 of section 3 of AS/NZS 2890.1:2004 Parking Facilities – Off Street Car Parking for a category 1 off street car parking facility.

The enhanced entry width to the site will allow two vehicles to pass one another in this location and allow for rubbish collection vehicles to reverse into the site. A fully dimensioned site layout plan is provided at the end of this report as attachment 1.

The driveway through the site (between High Street and the on-site parking areas) has been designed to allow two cars to pass one another safely with the exception being where the entry gates are located. In accordance with section 3.2.2 – Width requirements at low volume (Category 1) access driveways and

connecting roadways of AS/NZS 2890.1:2004 Parking Facilities – Off Street Car Parking, at least the first 15 metres of driveway is approximately 6 metres wide.

At the entry gates to the site it is only possible for one vehicle to manoeuvre through here at a time with adequate width either side for vehicles in the opposing direction to wait if the need arises. Between the entry gates and the main parking area, the driveway will be approximately 5 metres wide, with some minor widening required through one corner (as shown in attachment 2) which will allow unimpeded two way vehicle access.

Pedestrian access to the site is proposed at the southern end of the site adjacent to the vehicle access point. Access will be via a gate and pathway fronting High Street as depicted by the red arrow in figure 9 which extends behind the waste collection area with a hard surfaced footpath providing access to the main entry foyer of the Retirement Village.

Figure 9 – Proposed Site Layout

5.3 Car parking

The proposed retirement village has been designed to include 14 onsite carparks with one mobility park proposed with the remaining 13 parks to be allocated as follows:

- 2 x dedicated staff carparks
- 2 x dedicated visitor carparks
- 1 dedicated electric vehicle carpark
- 8 x carparks for lease

An electric vehicle (EV) will be purchased as part of the development of the proposed Retirement Village. The EV will operate under a car share scheme for residents of the village. In addition the remaining 8 carparks are intended to be available for lease for any of the apartment owners.

The off street car parking areas have been designed in accordance with AS/NZS 2890.1:2004 Parking Facilities – Off Street Car parking, noting the following:

- All 90 degree parking spaces are designed to be 5.0m long in accordance with exception (I – End overhang) of section 2.4 – Design of Parking Modules "Where a vehicle may overhang the end of a space, e.g. at a kerb, provided the first 600mm immediately behind it is unobstructed, is not another parking space and is not required as a footway or for some similar purpose, space lengths measured parallel to the parked vehicle may be reduced by 600mm".

- The single mobility carpark has been designed in accordance with section 5 of NZS 4121: 2004 Design for Access and Mobility – Buildings and Associated Facilities, noting additional width exceeding that of which is required within this standard has been provided to improve accessibility.

- Vehicle tracking design checks have been completed for all 11 off street car parking spaces within the main parking area. These tracking checks have not been completed for the first 3 car parks near the entry gates to the site with vehicle access here being less constrained.

Attachment 1 at the end of this report contains a fully dimensioned plan of all car parking areas. Further, Attachments 3 to 11 contain vehicle tracking drawings completed for the main off street car parking area.

6.0 District Plan Considerations

The proposed development is located within Lower Hutt City, therefore is required to meet the provisions set out, chapter 14 – General Rules of the District Plan.

Table 2 lists the relevant rules and whether the proposed subdivision complies with the District Plan Requirements

Table 2: District Plan Compliance Summary (Transport)

Standard 1 – Standards for New Roads	Proposed	Compliance
1b. All roads must be designed and constructed in accordance with NZS 4404:2010 Land Development and Subdivision Infrastructure	NA	NA
1c. Service lanes, private ways. Pedestrian access ways and walkways must be designed in accordance with section 3 of NZS 4404:2010 Land Development and Subdivision Engineering, except that table 2-1 replaces the formation requirements for private ways detailed in NZS 4404.	- A minimum carriageway formation width of 5m is proposed with a separated 1m footpath. This has been assessed against a Lane of ~200vpd correlating to figure E10 of table 3.2, Section 3 Roads, NZS 4404:2010	Complies

Table 2-1: Legal Widths and Formation Requirements for Private Ways

No. of potential dwellings	Legal Width	Formation Width
1	3m	No specific requirements
2	3m	No specific requirements
3	4m	3m carriageway

4-6	6m	5m carriageway
7-10	7m	5m carriageway plus 1m footpath

Standard 2 –Site Access and Manoeuvring Area	Proposed	Compliance
2a. Vehicle Access (excluding separation distances from intersections. - No more than two separate crossings for any front site. - The width of such crossings must not exceed 50% of the road frontage - There must be a separation distance of at least 1 metre between crossings measured at the kerb/carriageway edge - Site access must be designed and constructed in accordance with section 3 of AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-street car parking. - Where vehicle access serves three or more dwellings, it must have a minimum width of 4 metres to allow for fire service vehicles	- Three existing vehicle crossings to the site to be reduced to one, with remaining vehicle crossing towards southern boundary of the site to be enhanced. - Proposed width of enhanced vehicle crossing to be 8.3 metres or 12.5% of the total road frontage of the site. - Existing vehicle crossing towards southern boundary of the site is of double width, also serving the neighbouring property, therefore has no separation distance - Site access has been designed and will be constructed in accordance with section 3 of AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-street car parking. - Vehicle access designed to be 5m in width allowing sufficient room for fire service vehicles	Complies
2b. Separation Distances from Intersections and Rail Level Crossings. - The distance between new vehicle accesses and all intersections must be at least: • National or Regional: 30m • Arterial or Primary Collector: 20m • Secondary Collector: 15m • Access Road: 10m - The distance between new vehicle accesses and all rail level crossings must be at least 30m.	- Separation distance between enhanced vehicle access to the site and the nearest intersection is 90 metres. - No rail level crossings within proximity of the development	Complies
2c. Manoeuvring Area - Sufficient area must be provided for vehicles to stand, queue and make all necessary manoeuvres without using the public road reserve, and without using the area provided for parking, servicing, loading or storage purposes.	- Sufficient space for at least 2 vehicles to queue has been allowed for between the entry gates and adjacent public footpath, should the need	Non Compliance

- Sufficient area must be provided to allow vehicles to enter and exit the site in a forward direction except where the access is to a single dwelling and accesses an Access, Secondary Collector or Primary Collector road (as listed in Appendix Transport 3).	arise for vehicles to queue up when entering the site. - Sufficient area within the site has been created to allow vehicles to enter and exit the site in a forward direction, with the exception of rubbish trucks which will need to reverse into the site	
2d. Additional Provision for Service Stations - Site access and manoeuvring space for service stations must also be designed, constructed and maintained in accordance with RTS13 Guidelines for Service Stations	N/A	N/A
Standard 3 – Minimum Sight Distances at Railway Level Crossings	**Proposed**	**Compliance**
3a. Minimum Sight Distances at Railway Level Crossings - New buildings, structures and activities that would obstruct drivers seeing approaching trains must be designed, located and constructed in accordance with New Zealand Transport Agency Traffic Control Devices Manual 2008, Part 9 Level Crossings and the Australian Level Crossing Assessment Model (ALCAM)	N/A	N/A
Standard 4 – Car and Cycle Parking and End of Trip Facilities	**Proposed**	**Compliance**
4a. Off-street Car parking for People with Disabilities - Off-street car parking for people with disabilities must be provided in accordance with section 5 of NZS 4121: 2004 Design for Access and Mobility – Buildings and Associated Facilities.	- One off street mobility car park is proposed within the site and has been designed to be of 4 metres in width and 5 metres in length.	Complies
4d. Car Parking Design Standards - Car parking spaces and facilities must comply with the requirements of AS/NZS 2890.1: 2004 Parking facilities Part 1: Off-street car parking.	- Car parking spaces have been designed in accordance with the requirements of AS/NZS 2890.1:2004 Parking facilities Part 1: Off street car parking.	Complies
4e. Cycle Parking and End of Trip Facility Requirements - For all activities in new buildings and developments (including the redevelopment of existing buildings), cycle parking and showers must be provided in	- The proposed retirement village will employ up to 5 staff therefore no cycle parking or showers will be provided.	Complies

accordance with the minimums stated in Tables 4-2. - At every place of assembly or sporting facility cycle parking must be provided clear of footpaths and roadways, not more than 50m from the public entrance, at the rate of 1 cycle per 20 persons based on the maximum number of persons the facility is designed to accommodate - Cycle parking facilities required under this standard must meet the following minimum specifications: 1. Stands must be securely anchored to an immovable object. 2. Stands must support the bicycle frame and front wheel. 3. Stands must allow the bicycle frame to be secured. 4. Cycle parking facilities must be located so it they are easily accessible for staff. 5. Cycle parking facilities must be located so as not to impede pedestrian thoroughfares including areas used by people whose mobility or vision is restricted. 6. Cycle parking facilities must be located so that the bicycle is at no risk of damage from vehicle movements within the site. 7. Cycle parking facilities must be available during the hours of operation and must not be diminished by the subsequent erection of any structure, storage of goods, landscape planting or any other use. 8. Cycle parking facilities for staff must be located in a covered area. 9. Cycle parking facilities for staff must be located in an area where access by the general public is generally excluded.		

Table 4-2 Minimum Cycle Parks and Showers

Number of Staff Members	Number of Cycle Parks	Number of Showers
1-5	0	0
6-10	1	1
10 or more	1 per 10 staff members	1 per 100 staff members
The number of staff members is the maximum number of full or part time staff members on the site at any one time		

Standard 5 – Loading and Unloading	Proposed	Compliance
5a. Loading and Unloading Requirements for Non-Residential Activities - For non-residential activities the number of loading spaces to be provided on-site must not be less than that shown in Table 5-1.	N/A	N/A
5b. Design Requirements - Loading facilities must be designed, constructed and maintained in accordance with AS 2890.2:2002 Parking facilities Part 2: Off-street commercial vehicle facilities, based on the minimum vehicle design stated in table 5-1.	N/A	N/A

Table 5-1: Minimum Loading Space Requirements

Gross Floor Area	No of spaces	Minimum Design Vehicle
Up to 500m^2	Nil	-
501 - 1000m^2	1	Small Rigid Vehicle
1001 - 3000m^2	1	Medium Rigid Vehicle
Greater than 3000m^2	1	Heavy Rigid Vehicle

5c. Rubbish Collection Facilities for Residential Activities - For residential developments of 20 or more dwelling houses, an onsite loading facility must be provided for rubbish collection vehicles. For the purpose of determining the design of the loading facility (under Standard 5(b)), the minimum design vehicle for the loading facility is a small rigid vehicle.	- There is insufficient room within the site to design and construct a loading facility for rubbish collection vehicles, with it proposed that these vehicles utilise the private way when loading.	Non Compliance

The proposed development is likely to be non-compliant in relation to two standards, these being:

1. Standard 2c – Manoeuvring Area
2. Standard 5c – Rubbish Collection Facilities for Residential Activities

The next section considers the areas of non-compliance along with analysis and assessment of other traffic related matters.

7.0 Assessment of Effects

This section of the report considers the proposed retirement village, analyses the transportation matters, and provides an assessment on the impacts of the proposal. The main areas that require careful consideration relate to the traffic generation and the potential impacts on High Street, noncompliance with the District Plan and road safety.

7.1 Traffic Effects

The proposed 51 unit retirement village at 758 High Street has been assessed using trip generation rates from the NZTA Research Report 453 “Trips and parking related to land use” (RR453). For a retirement unit, the trip rate is 2.6vpd/unit on average. The peak hour trip rate is 0.3vph/unit.

The expected traffic generation arising from the site is therefore 133vpd and 15vph across the single vehicle access way to the site.

7.2 Standards for New Roads

As detailed under standard 1 of the District Plan there are requirements which need to be met regarding the design of private ways including associated widths of these in relation to the number of dwellings being developed. Both NZS4404 and Hutt City Council’s standards in relation to the formation of private ways do not provide guidance beyond 10 dwellings.

In order to to be able to assess the standard of the proposed private way its characteristics have been compared to that of the different road classifications in table 3.2, NZS4404:2010. For the purposes of this assessment, figure E10 of table 3.2 being a lane designed for ~200 vehicle movements per day has been selected.

Table 3 below provides a comparison between what the selected standard requires and the proposed private way design for 758 High Street in the absence of specific private way design guidance in either the District Plan or NZS4404.2010 for a development of this scale.

Table 3 – District Plan Compliance (NZS 4404 requirements vs proposed design)

	Place Context			Design Environment				Link Context				
	Area	Land use✓	Local attributes	Locality served	Target operating speed (km/h)	Min road width (m)	Max grade	Pedestrians	Passing, parking, loading and shoulder	Cyclists	Movement lane (excluding shoulder)	Classification
Selected standard (E10 Table 3.2 NZS4404:2010)	Suburban	Live & Play	Side or rear service access	Up to 100m in length between streets 1 – 20 lots	10	6	16%	Shared (In movement lane)	Allow for passing up to every 50m	Shared (in movement lane)	2.75 -3.00m	Lane (~200 vpd)
758 High Street	Suburban	Live	Private Access	60m & 51 retirement units	10	6 (5m +1m footpath)	Flat gradient TBC	Separated 1m footpath	Two way vehicle flow	Shared (in movement lane	Minimum of 5 metres	Private Way (~133 vpd)
Compliance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

7.3 Vehicle Access

Under Standard 2 of the District Plan – Site Access and Manoeuvring Area, sufficient area must be provided to allow vehicles to enter and exit the site in a forward direction except where the access is to a single dwelling and accesses an Access, Secondary Collector or Primary Collector road (as listed in Appendix Transport 3.

Sufficient space within the site has been created to allow vehicles to enter and exit the site in a forward direction, with the exception of waste collection vehicles which will need to reverse into the site. Guidance on the size of the waste collection vehicle that will need to access the site has been provided by Hutt City Council. The document “Guidance on Waste Storage Areas for Multi-Unit Developments” provides key dimensions of the size of vehicle that needs to be designed for.

Attachment 12 demonstrates vehicle tracking checks completed for a vehicle of this size reversing into the site. As shown it is possible for a waste collection vehicle of this size to reverse into the site with its starting position being within the road shoulder/parking lane in front of #754 High Street.

In order for waste collection vehicles to line up with the proposed waste collection area, slight tracking of the vehicle into the live line is possible. Effects on other vehicle traffic are minimised due to the wide flush median on High Street allowing vehicles to pass safely. The effects of the non-compliance in relation to the inability for waste collection vehicles to enter the site in a forward direction are considered to be appropriately managed therefore considered to be less than minor.

7.4 Rubbish Collection Facilities for Residential Activities

Under standard 5 of the District Plan – “Loading & Unloading, for residential developments of 20 or more dwelling houses, an onsite loading facility must be provided for rubbish collection vehicles. For the purpose of determining the design of the loading facility (under Standard 5(b)), the minimum design vehicle for the loading facility is a small rigid vehicle”.

There is insufficient room within the site to provide a dedicated loading facility adjacent to the waste storage area for rubbish collection vehicles to park whilst being loaded. Early communications with Hutt City Council in mid-2021 confirmed that waste will be collected from the site three times a week with the preferred location for the waste storage area being at the front of the site as confirmed with Councils Waste Management provider.

As shown in attachment 12, vehicle tracking has been completed for a waste collection vehicle reversing into the site, with this highlighting that access to and from the site will blocked at these times. Given the fact that this will be a private way and will not provide a through route function for vehicle or pedestrian traffic other than that of residents and visitors, the associated safety risk within the site and that fronting High Street related to queueing of vehicles is considered low. For these reasons, the effects of having no dedicated on site loading facility are considered to be less than minor.

7.5 Parking & Sustainable Travel Effects

In 2020 the Government released its National Policy Statement on Urban Development with section 3.38 requiring territorial authorities to remove minimum parking requirements, other than that for accessible car parks. Subsequently Hutt City Council removed the minimum car parking rate requirements from the District Plan on 29 September 2020.

Regardless of Government Policy changes, provision has still been made for 14 off street carparks (complimenting the existing 6 restricted carparks fronting the site), with these being allocated specifically to encourage a shift in the way residents and visitors travel to and from the proposed Retirement Village. This shift will be encouraged through the purchase of an electric vehicle operating under a car share scheme for all residents, removing the need for residents to own and store their own vehicles.

Further and as detailed earlier in this report, High Street takes in three high frequency bus routes, with bus stops located within convenient walking distance to the north and south of the site.

8.0 Summary & Conclusions

Based on the assessment undertaken, it is concluded that:

- The proposed Retirement Village is expected to generate up to 133 additional vehicle movements from the site each day with traffic effects of this being less than minor.

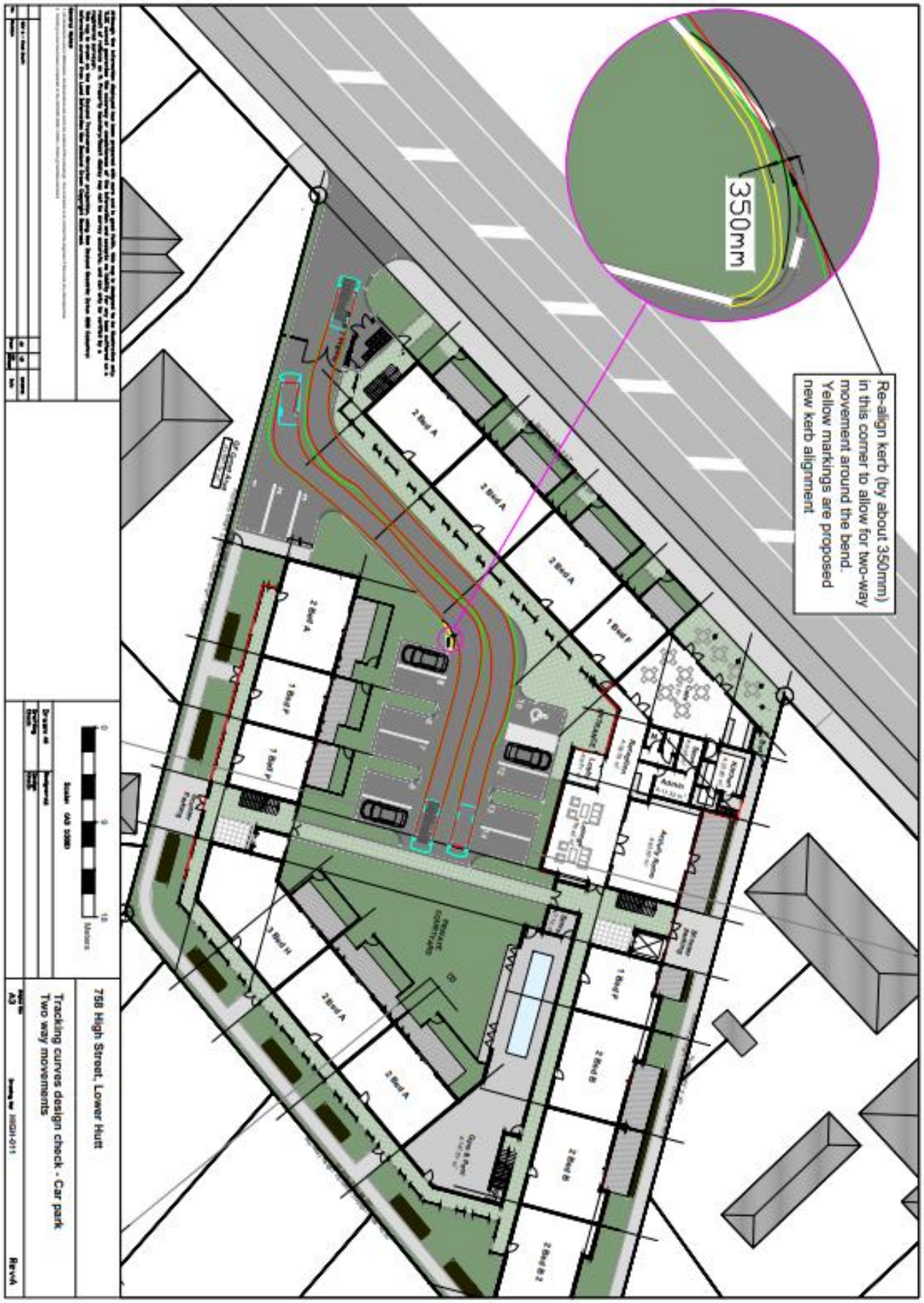
- In accordance with the Hutt City Council document “Guidance on Waste Storage Areas for Multi-Unit Developments” a waste collection vehicle equivalent to a medium rigid vehicle can be reversed into the site safely therefore its effects on not being able to enter the site in a forward direction are considered to be less than minor.

- The safety risk associated with not being able to provide a dedicated onsite loading facility for waste collection vehicles in relation to other vehicle traffic entering and exiting the site has been assessed as being low with the associated effects of this being less than minor.

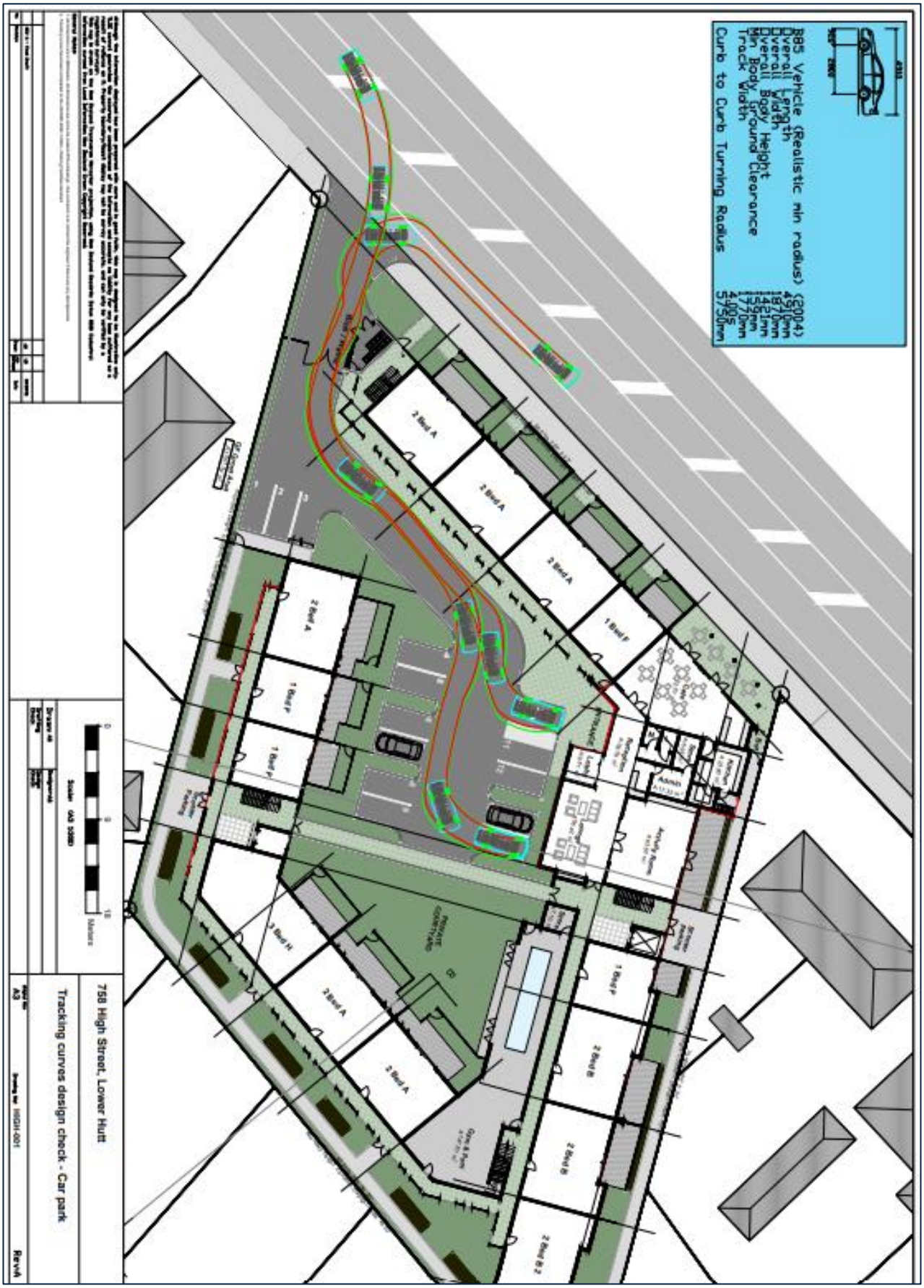
As such, it is assessed that there are no transportation planning or engineering reasons to preclude the approval of the proposed subdivision.

Attachment 1 – Carpark & Vehicle Access Layout

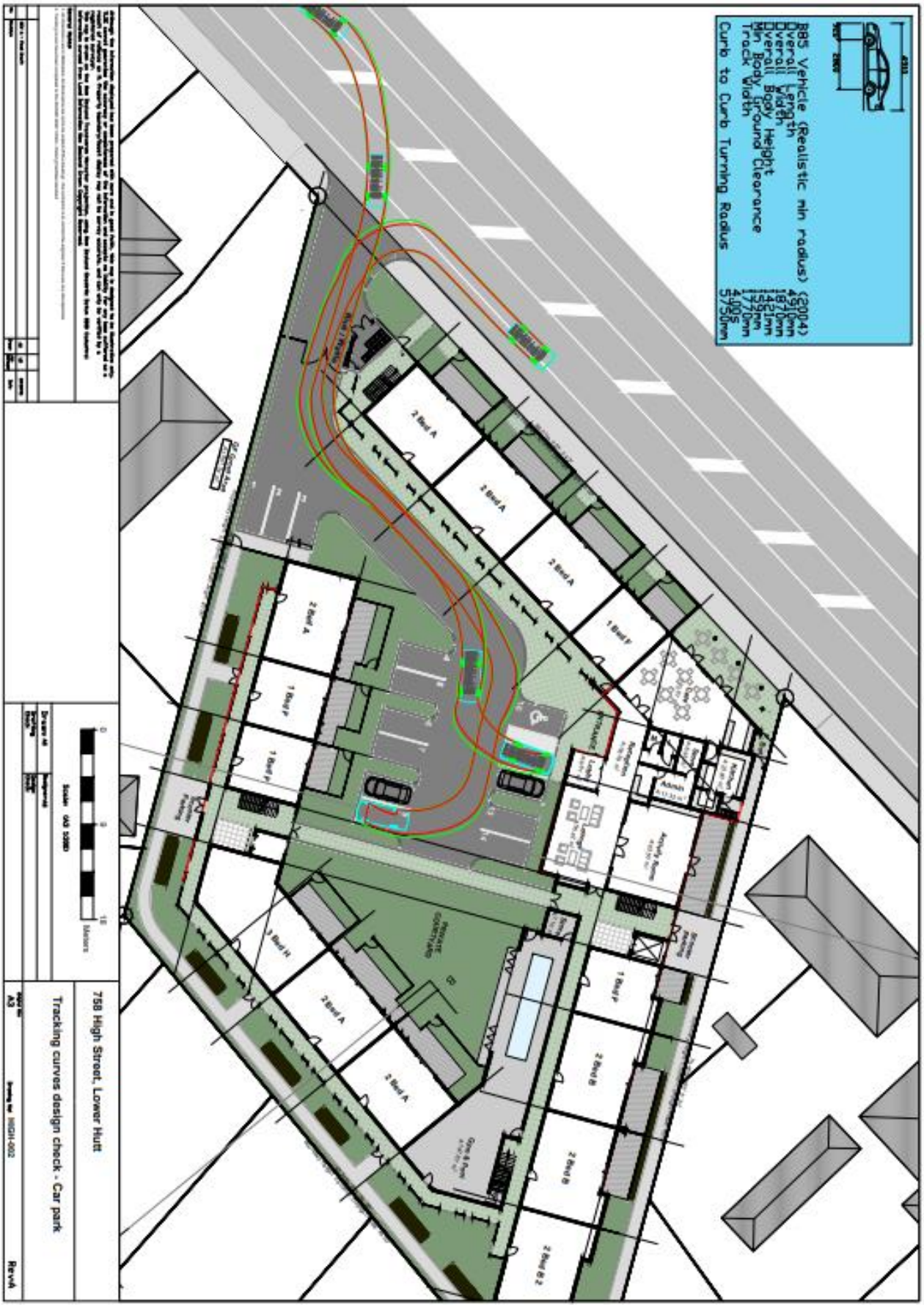
Attachment 2 – Circulating roadway/driveway vehicle tracking checks within the site



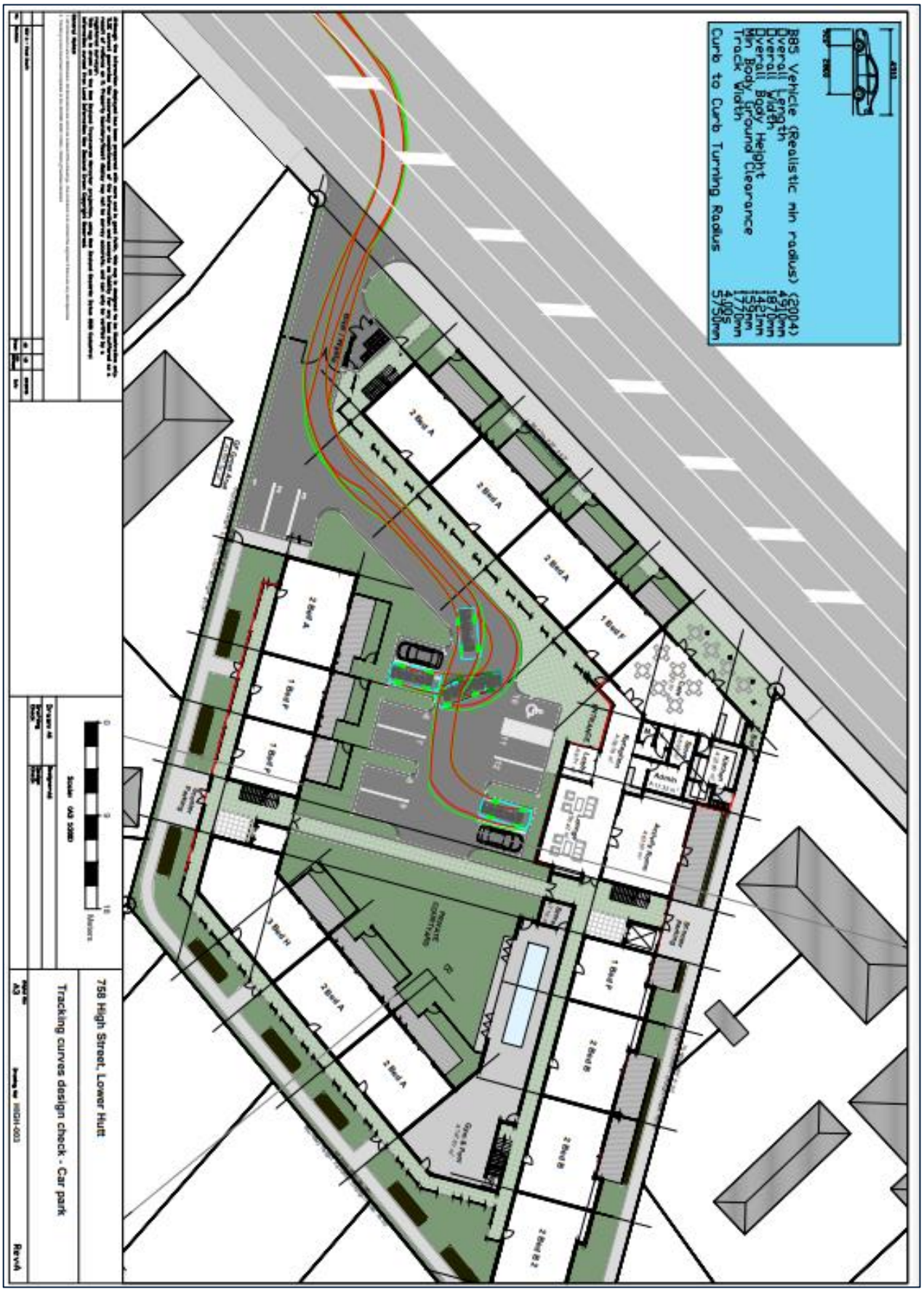
Attachment 3 – Vehicle Tracking Drawings



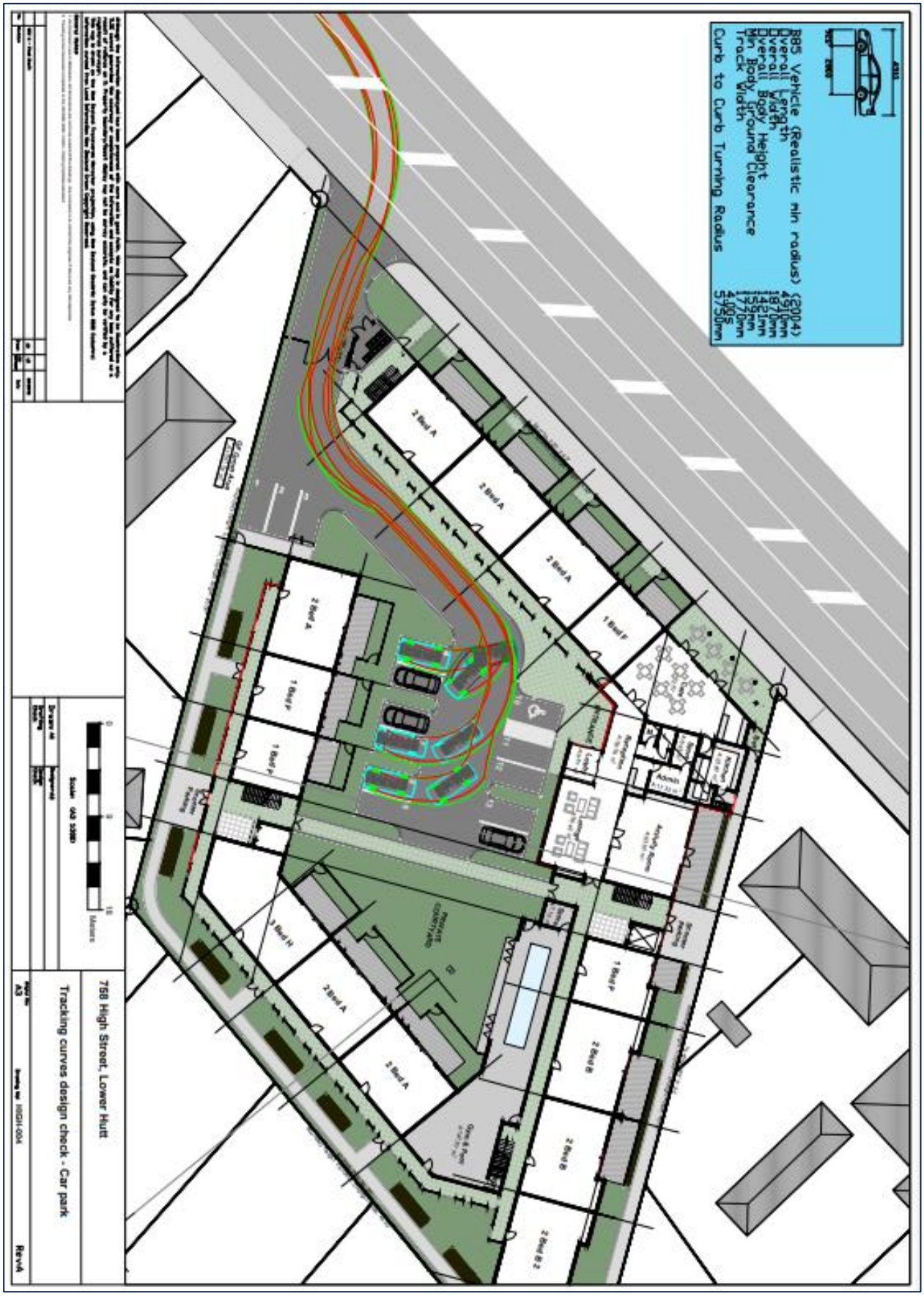
Attachment 4 – Vehicle Tracking Drawings



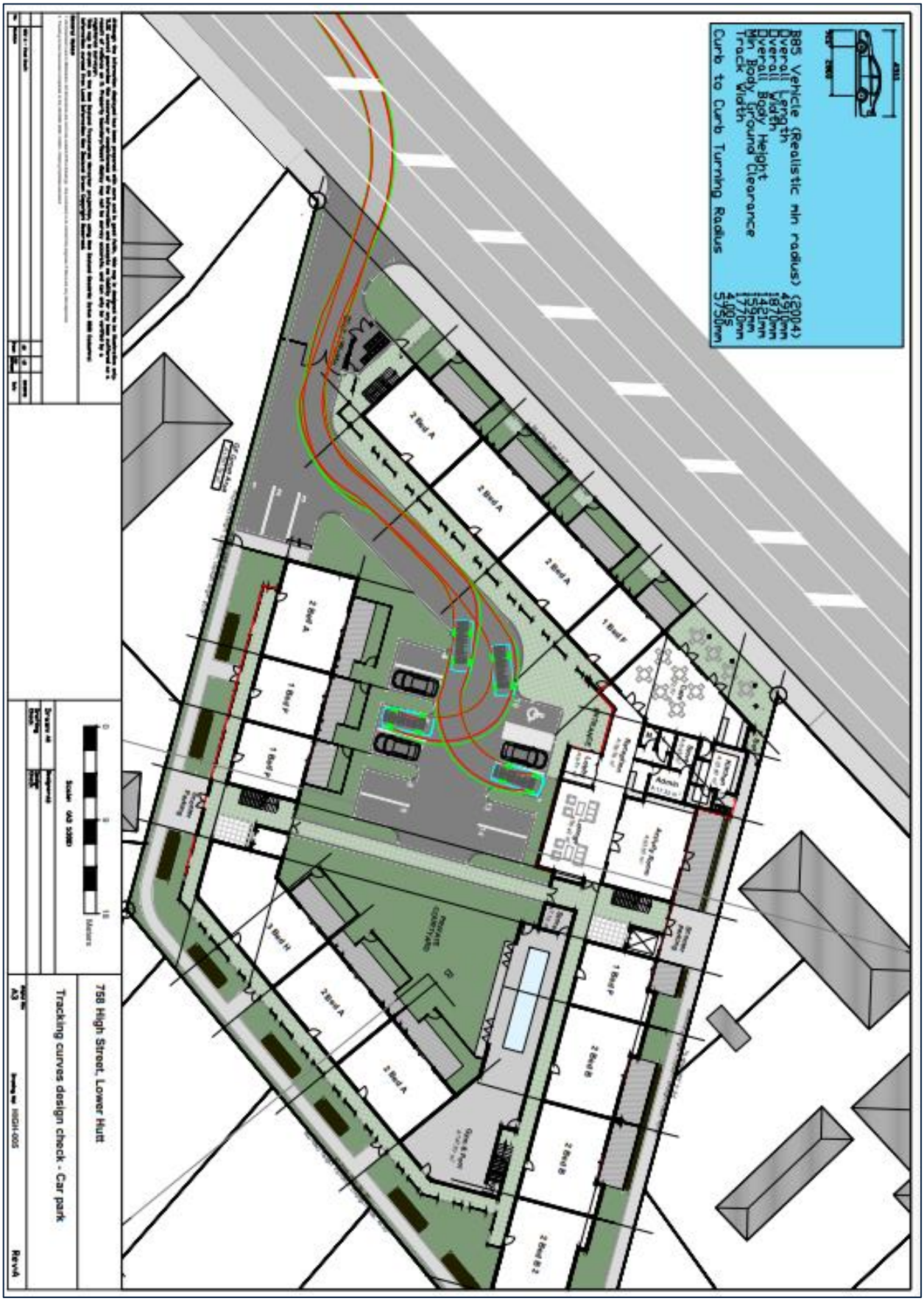
Attachment 5 – Vehicle Tracking Drawings



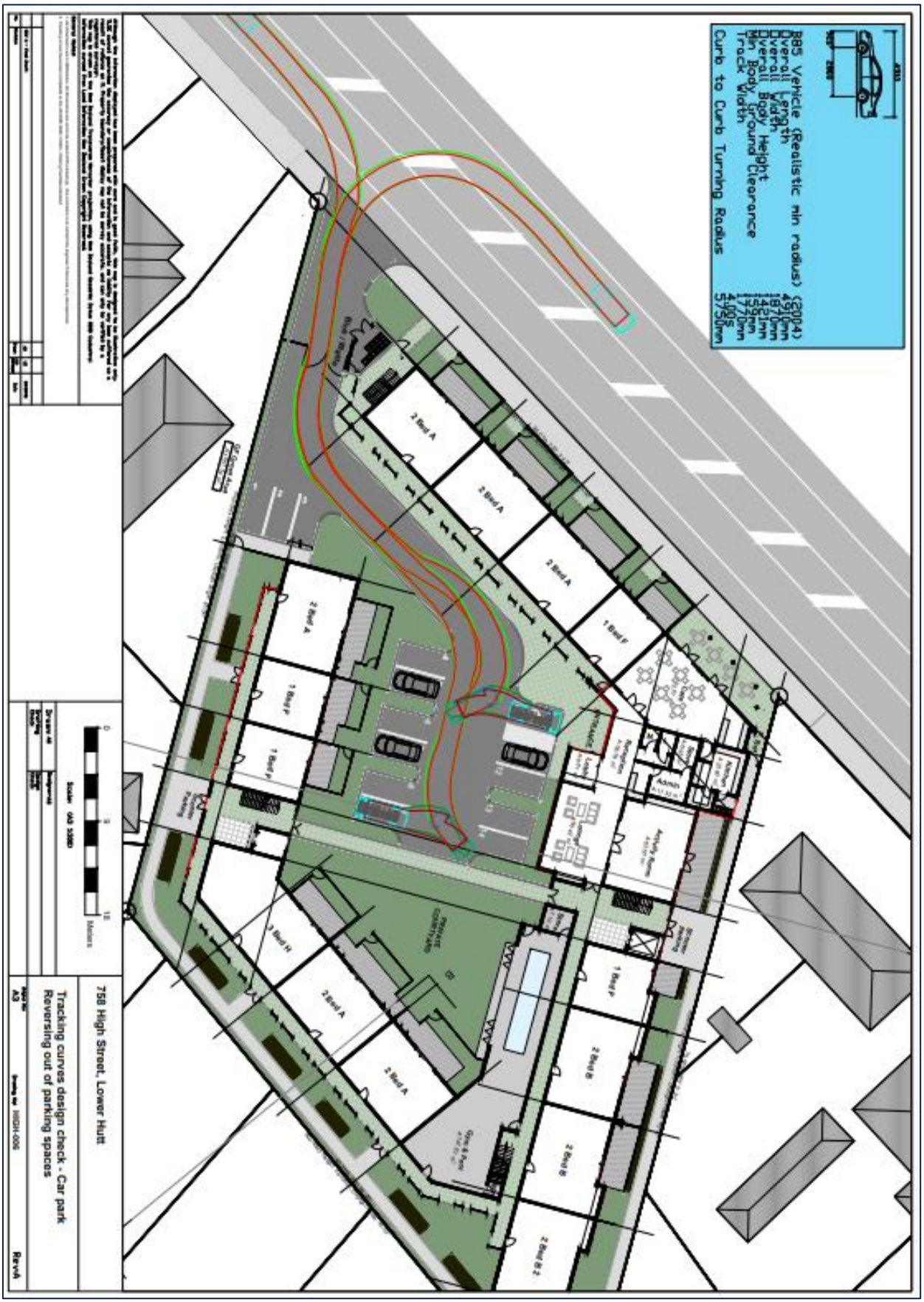
Attachment 6 – Vehicle Tracking Drawings



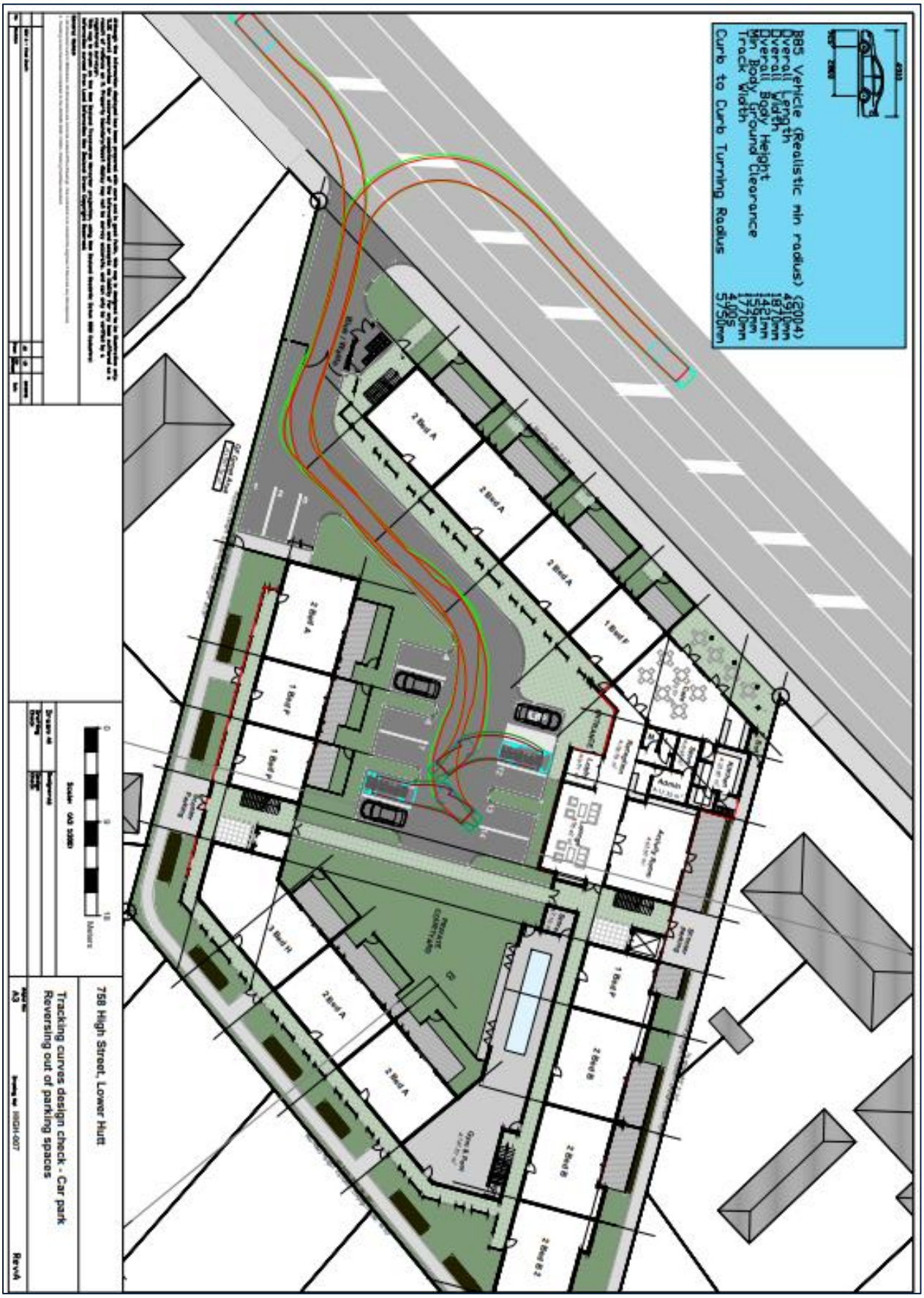
Attachment 7 – Vehicle Tracking Drawings



Attachment 8 – Vehicle Tracking Drawings

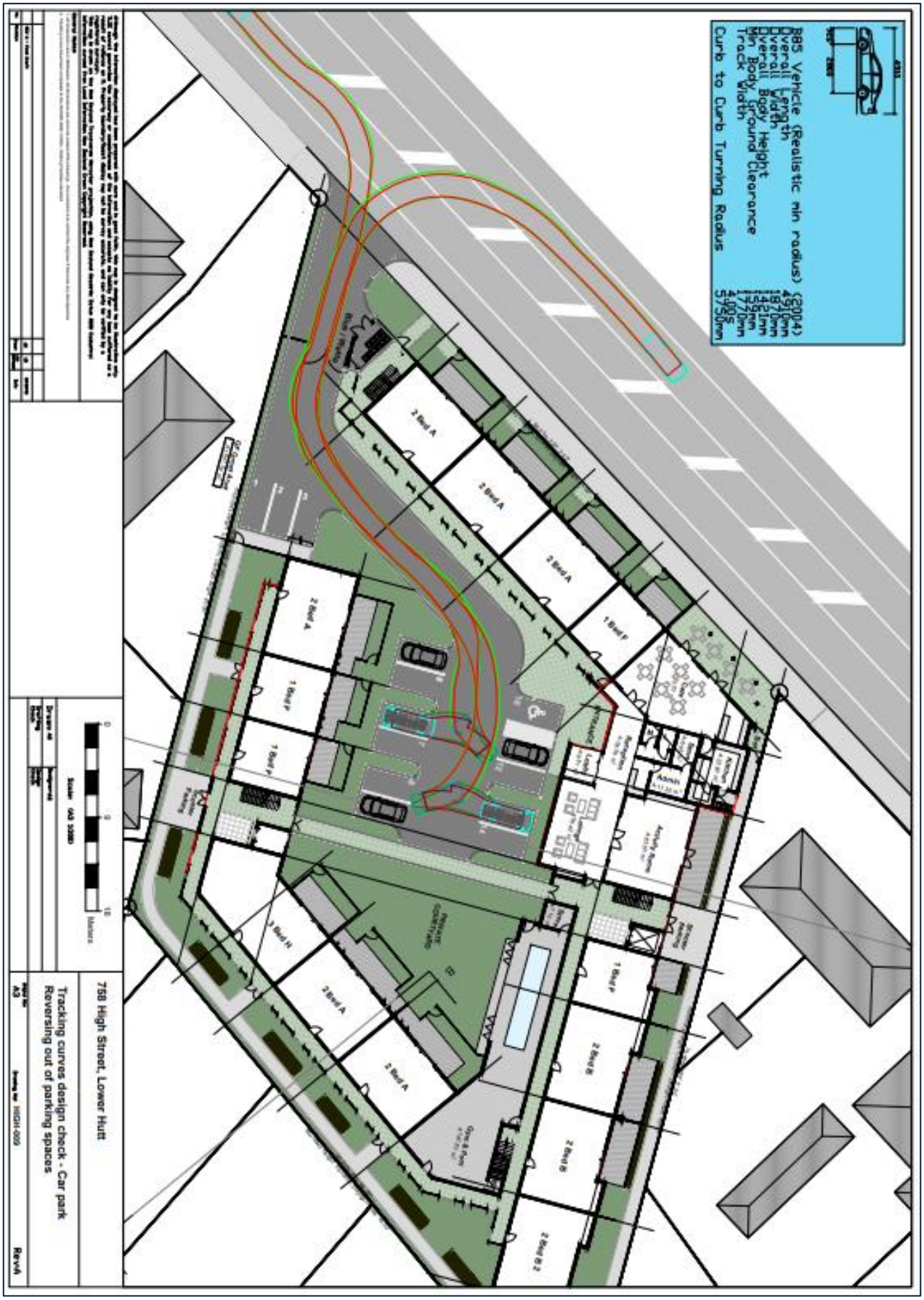


Attachment 9 – Vehicle Tracking Drawings

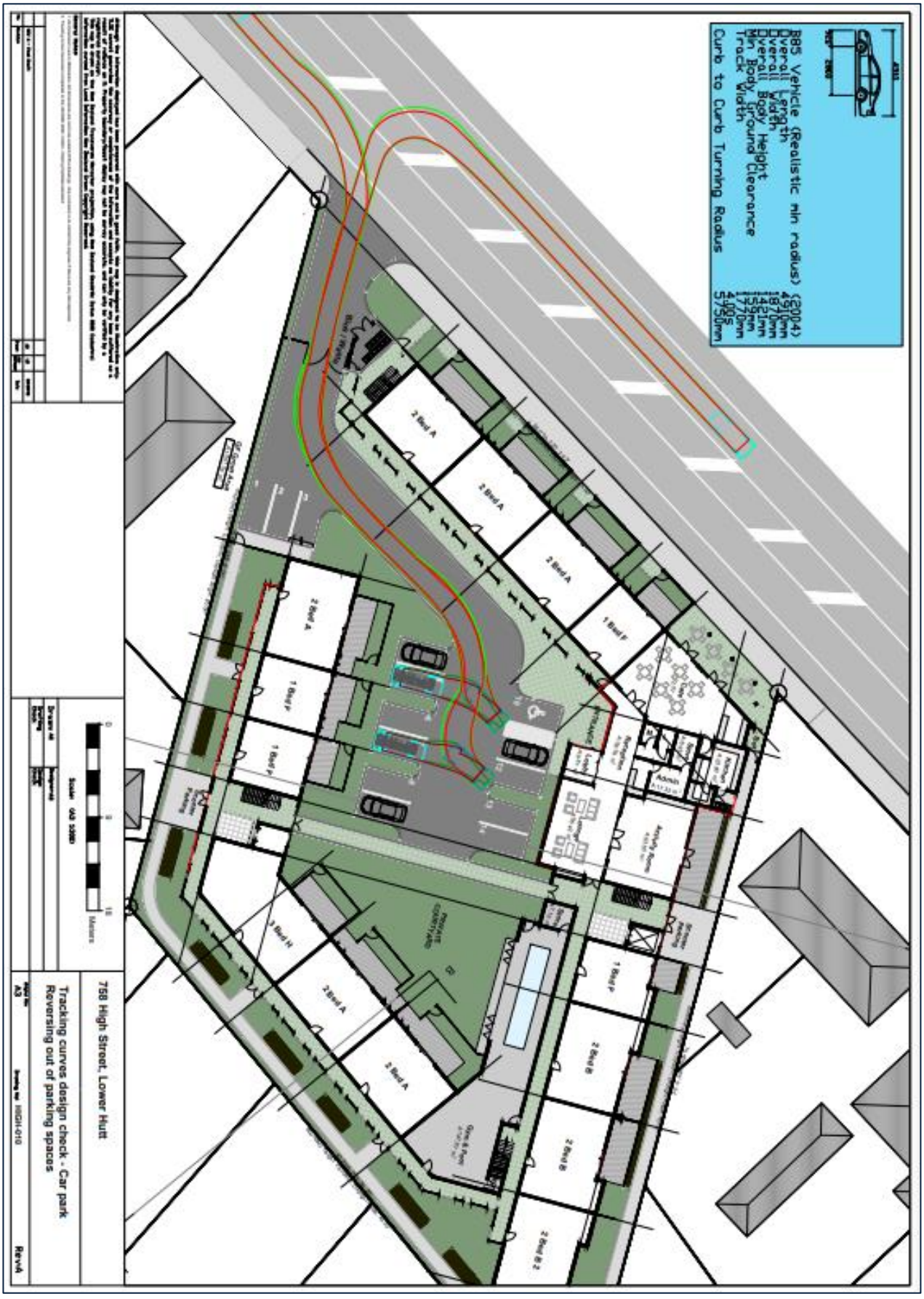


Attachment 10 – Vehicle Tracking Drawings

Attachment 11 – Vehicle Tracking Drawings



Attachment 12 – Vehicle Tracking Drawings



Attachment 12 – Vehicle Tracking Drawings (Medium Rigid Vehicle (Rubbish Truck) Reversing onto the site)