



# Copeland Borough Council

# **LOCAL PLAN 2021-2038**

Site Access Assessment





# **Copeland Borough Council**

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Site Access Assessment

TYPE OF DOCUMENT (VERSION) CONFIDENTIAL

**PROJECT NO. 70086983** 

OUR REF. NO. 70086983 - COPELAND LPSAA

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# INTRODUCTION





# 1 INTRODUCTION

- 1.1.1. WSP has been commissioned by Copeland Borough Council (CBC) to undertake an independent review of potential access options for 37no. site being considered for inclusion in the Local Plan. The sites are located across the borough and are proposed to support a combination of employment and residential uses. The geographic context of the sites within Copeland Borough Council's jurisdiction is presented in **Figure 1**.
- 1.1.2. It should be noted that not all of the sites from the Preferred Options draft have been considered in this report. This is largely because a site has either gained a planning permission and access has been agreed in principle or the site has been proposed to be removed following the Preferred Options consultation.
- 1.1.3. This assessment will provide an initial view as to the deliverability of the individual sites from a highways and transport perspective. Whilst this study demonstrates whether suitable access(es) can be achieved for the purposes of the Local Plan, the actual access(es) proposed may differ at planning application stage.
- 1.1.4. Two phases of assessment were undertaken as part of this review; Phase 1 consisted of an initial site assessment informed by desktop research and site visits, with a site assessment pro forma completed for each site (Appendix A), whilst Phase 2 entailed development of outline access designs and associated scheme costings. All 37no. sites were considered in Phase 1, with six taken forward for Phase 2. Further detail on Phase 2 site selection is provided in Section 3 of this report.
- 1.1.5. This Site Access Assessment has been preceded by work undertaken as part of the Copeland Transport Improvements Study (CTIS). The study considered the transport-related impacts of growth, as set out in the Local Plan, and identified a range of potential improvements to the transport network aimed at mitigating the additional demand. This site access assessment is complementary to the CTIS, providing detail in relation to specific site access arrangements that should be considered alongside the improvements identified in the previous study.
- 1.1.6. As part of the development of this study WSP and CBC have worked closely with CCC officers to ensure that the outcomes reflect their technical advice and is endorsed by CCC. This has been achieved through focused meetings between parties and from comments provided to WSP by CBC and CCC officers. This report reflects all comments received to date.
- 1.1.7. WSP has also liaised with National Highways in development of this study and its findings. This consultation took the form of a virtual meeting with National Highways Officers held 4<sup>th</sup> November 2021 and subsequent email exchanges.
- 1.1.8. **Table 1-1** presents a list of all acronyms and abbreviations used within this report.

**Table 1-1 – List of Acronyms and Abbreviations** 

List of Acronyms and Abbreviations			
Arr	Arrivals		
CBC	Copeland Borough Council		
CCC	Cumbria County Council		
CDDG	Cumbria Development Design Guide		
CTIS	Copeland Transport Improvement Study		

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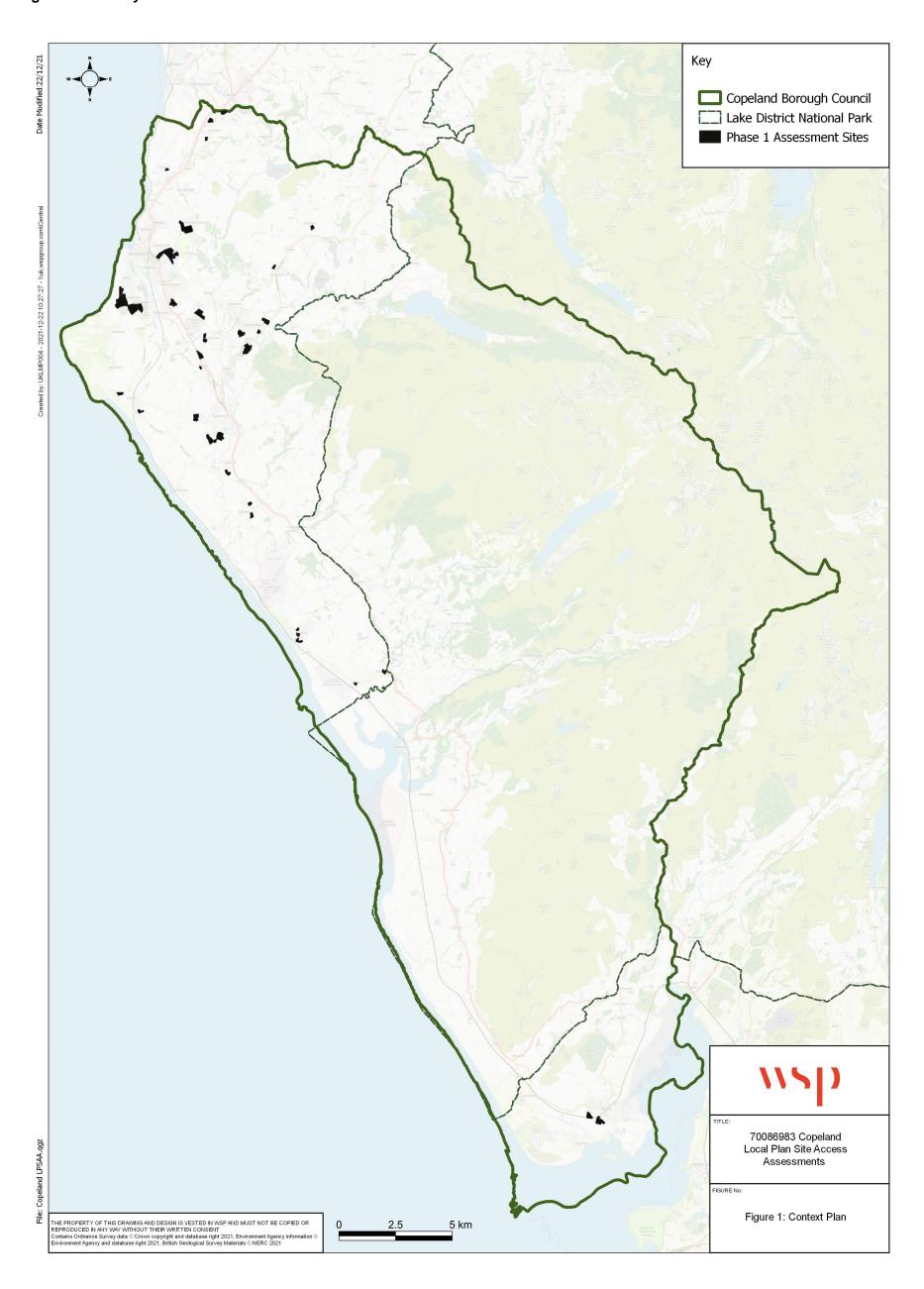
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List of Acrony	yms and Abbreviations
Dep	Departures
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
EVA	Emergency Vehicle Access
GIS	Geographic Information System
LDNPA	Lake District National Park Authority
LPSAA	Local Plan Site Access Assessment
LTN1/20	Local Transport Note 1/20
MfS	Manual for Streets
MfS2	Manual for Streets 2
NCN	National Cycle Network
NH	National Highways
os	Ordnance Survey
PIA	Personal Injury Accident
SHLAA	Strategic Housing Land Availability Assessment
SSDs	Stopping sight distances
TRICS	Trip Rate Information Computer System
TROs	Traffic Regulation Orders



Figure 1-1 - Study Context Plan



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**PHASE 1 ASSESSMENT** 





# 2 PHASE 1 ASSESSMENT

### **OVERVIEW**

- 2.1.1. The following items have been considered as part of the desk based assessment and site visits, and recorded in the resulting sites access pro formas:
  - Physical Constraints;
  - Environmental Constraints;
  - Neighbouring uses;
  - Traffic Generation:
  - Vehicular access, including visibility splay, sites access, and adjacent road network;
  - Sustainable access, including walking and cycling infrastructure, and public transport connections; and
  - Road Safety.
- 2.1.2. The site visits were undertaken over 5<sup>th</sup> and 6<sup>th</sup> August 2021; each site was reviewed from publicly accessible locations and photographs were taken to capture issues on site and inform WSP thinking.
- 2.1.3. This chapter sets out the source of the data used in the completion of the site assessment proformas, which are presented in **Section 2.2** of this report.

### **PHYSICAL CONSTRAINTS**

2.1.4. The location and spatial configuration of the sites and surrounding areas have been assessed to understand the potential opportunities and constraints for providing site access. This information was collated from desktop research, considering sites plan and OS maps, and site visits.

#### **ENVIRONMENTAL CONSTRAINTS**

2.1.5. The environmental conditions of the sites that are pertinent to provision of access have been observed and recorded as part of the site visits. Of particular relevance are vegetation cover along the site boundaries and utilities that are located within or in proximity to the sites.

### **NEIGHBOURING USES**

2.1.6. For each site, the surrounding land uses and level of development has been assessed through desktop research and site visits. The potential for disruption to neighbouring development and landowners has been reviewed as part of the site access proposals presented.

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### TRAFFIC GENERATION: TRIP DEMAND FORECASTING

- 2.1.7. To understand the potential contribution of each site to the local transport network and therefore the access requirement, the numbers of trips to and from the sites have been forecast based upon indicative development proposals provided to WSP by CBC. The number of dwellings shown for each site in the pro formas is therefore only an **indicative** number based on the below assumptions.
- 2.1.8. The following assumptions, provided by CBC, have informed the number of dwellings, and scale of development, anticipated at each site:
  - Residential: assumes a density of 25no. dwellings per hectare
  - Employment: unless specified, assumes industrial estate type development, with 40% of total land area being developable.
- 2.1.9. Notwithstanding the above assumption relating to residential densities some sites assume alternative numbers of dwellings where other information has been received; for example, if a planning application has been submitted for an alternative number of dwellings.
- 2.1.10. The traffic generated by each of the sites has been calculated using the industry standard TRICS database. TRICS is a database of traffic and multi-modal surveys undertaken at development sites across the UK. TRICS is used to forecast the trip generation of a proposed development through the selection of similar sites in the database, based upon land use, size and location. The output provides a trip rate which can be used to calculate the traffic or person trip generation for the proposed development.
- 2.1.11. For the purposes of this study only the trips generated in the peak hours were considered. TRICS peak hours for residential and employment development have been extracted for 0800-0900 and 1700-1800 for the AM and PM peaks respectively.
- 2.1.12. The trip rates for different modes of travel, by land use, are provided in the following tables. Full details of TRICS selection parameters and associated trip rates are presented in **Appendix B**. A summary is provided below. All surveys undertaken during the Covid-19 pandemic were deselected from the survey list.
  - Residential Sites
    - Mix of private and affordable housing
    - Suburban, Edge of Town, and Neighbourhood Centre location types
  - Employment Sites
    - Industrial Estate land use;
    - Suburban, Edge of Town, and Neighbourhood Centre location types

### **Table 2-1 – Vehicular Trip Rates**

Development Type	Trip Rate Units	AM Arrivals	AM Departures	PM Arrivals	PM Departures
Residential	Dwelling	0.095	0.31	0.306	0.151



Development Type	Trip Rate Units	AM Arrivals	AM Departures	PM Arrivals	PM Departures
Employment	Per 100m2 GFA	0.526	0.197	0.13	0.513

# Table 2-2 - Walk/ Cycle Trip Rates

Development Type	Trip Rate Units	AM Arrivals	AM Departures	PM Arrivals	PM Departures
Residential	Dwelling	0.032	0.119	0.062	0.054
Employment	Per 100m2 GFA	0.025	0.013	0.025	0.045

### Table 2-3 - Bus Trip Rates

Development Type	Trip Rate Units	AM Arrivals	AM Departures	PM Arrivals	PM Departures
Residential	Dwelling	0.004	0.033	0.023	0.011
Employment	Per 100m2 GFA	0.017	0	0.001	0.015

### Table 2-4 - Rail Trip Rates

Development Type	Trip Rate Units	AM Arrivals	AM Departures	PM Arrivals	PM Departures
Residential	Dwelling	0	0.003	0.003	0
Employment	Per 100m2 GFA	0.002	0	0	0.002

- 2.1.13. In order to calculate the number of trip arrivals and departures for each site, the trip rates and site yield or capacity have been used. Employment trip rates have been calculated using unit floor area however currently only the total site area is known, as there are no development plans for the sites. As such, plot ratios have been used to estimate the developable area (floorspace) for the employment site(s).
- 2.1.14. The development ratio used for industrial employment sites is consistent with the approach undertaken for the Allerdale Borough Council Local Plan Site Access Assessment. The ratio of 0.4 (40%) was taken from the 'Eden District Council Local Plan Technical Paper 3 Employment'. The ratio was applied to the employment sites in order to approximate the floorspace of developments, enabling conversion of the trip rates to number of trips.



### **VEHICULAR ACCESS**

- 2.1.15. The existing access arrangements for each site has been identified through a desktop review of the site boundary plans and site visit. This involved consideration of the location, width and condition of the current accesses to ascertain whether they could feasibly cater for the trips generated by development of the sites.
- 2.1.16. The visibility from potential site accesses has also been assessed as part of the site visits, taking into account horizontal and vertical alignment of the carriageway, speed limits, surrounding land use, and vegetation overgrowth. This review was based on industry guidelines presented in the Cumbria Development Design Guide (CDDG) (2017), Department for Transport's (DfT) Manual for Streets and Manual for Streets 2 guidance (2007 and 2010 respectively) (applicable in urban, residential areas) and the Design Manual for Roads and Bridges (DMRB) for more rural sites.
- 2.1.17. Other matters such as separation distances from existing junctions, gradients, carriageway and footway widths have also been considered, alongside the requirement for other infrastructure such as service margins and street lighting.
- 2.1.18. Cumbria County Council have stipulated site access requirements in the Cumbria Design Guide, which include the following:
  - Emergency Vehicle Access for sites of 50 or more dwellings
  - Secondary vehicle access for sites of 100 or more dwellings
- 2.1.19. For the site access assessments consideration has been given to these requirements, and recommendations provided for the relevant sites.

### SUSTAINABLE ACCESS

2.1.20. Information about the local public transport and active travel infrastructure, including railway stations, bus stops and routes, cycle paths and pedestrian footways, has been recorded through desktop research and site visits. These multi-modal connections were considered in order to assess the accessibility of the sites.

## **ROAD SAFETY**

- 2.1.21. The speed limits on the local road network, from which access to the sites could be provided, were identified as part of the site visits.
- 2.1.22. The number and severity of road traffic collision between 2014 and 2019 that occurred within 500m of the sites have been provided. This data has been sourced from the Department for Transport through WSP's GIS corporate datasets.



# **HISTORIC SITE REFERENCES**

2.1.23. For ease of cross-comparison with previous Local Plan documents (e.g. SHLAA), the current site references used in the following pro formas is presented alongside any previous site references used. This is presented in **Table 2-5**.

Table 2-5 - Pro Forma Site References

Publication Site Ref	SHLAA Site Ref	Site Name	Site Allocation	Site Size	Site HA	Site Settlement
HWH1	WE032 & WE001	Land at West Cumberland Hospital and Snekyeat Rd	Residential	127	5.22	Whitehaven
HWH3	Ws008/a	Land at Edgehill Park (the additional land to the east of the approved site)	Residential	120*	6.27	
HWH4	WW018/WW022	Land south and west of St Mary's School	Residential	60	2.36	
HWH5	WW014	Former Marchon Site North	Residential	532	21.31	
HWH6	WW019a	Land South of Waters Edge Close	Residential	35	1.41	
HCM1	CM028 & CM038	Land at Jacktrees Road	Residential	127	4.66	Cleator Moor
HCM2	CM082a	Land north of Dent Road	Residential	96	3.91	
НСМ3	CM008b	Former Ehenside School	Residential	40	1.38	
HEG1	EG014, EG036 & EG050	Land north of Ashlea Road	Residential	108	5.21	Egremont
HEG2	EG008, EG025 & EG032	Land at Gulley Flatts	Residential	170	3.26	
HEG3	EG007	Land to south of Daleview Gardens	Residential	141	7.74	
HMI1	MI001	Land west of Grammerscroft	Residential	107	4.28	Millom



Publication Site Ref	SHLAA Site Ref	Site Name	Site Allocation	Site Size	Site HA	Site Settlement
HMI2	MI022 & MI026	Moor Farm	Residential	195	6.79	
HAR01	AR009 & AR020	Land East of Arlecdon Road	Residential	37	1.73	Arlecdon & Rowrah
HBI1	BI001	Land north of Springfield Gardens	Residential	65	2.60	Bigrigg
HBI2	BI002a	Land west of Jubilee Gardens	Residential	35	1.45	
HBI3	BI009a	Springfield Farm	Residential	44	1.55	
HDI1	DI013a	Land South of Prospect View	Residential	30	1.21	Distington
HDI2	DI033	Land south west of Rectory Place	Residential	64	2.56	
HDH2	DH012	Wray Head, Station Road	Residential	22	0.87	Drigg & Holmrook
HDH3	DH007/7a	Farm at Holmrook	Residential	20	0.80	
HFR1	FR043	Land at Griffin Close	Residential	32	1.24	Frizington
HSB1	SB001	Land adjacent Abbots Court	Residential	58	2.33	St Bees
HSB3	Sb018/028	Adjacent Fairladies	Residential	30	0.77	
HSE1	SE030	Land to west of Santon Way	Residential	45	2.31	Seascale
HSE2	SE024	Fairways Extension	Residential	22	0.88	
HSE3	Se006	Town End Farm East	Residential	32	1.28	
HTH1	TO002a	Land to south of Thornhill	Residential	69	2.73	Thornhill
HBE1	BE003 & BE023	Land north of Crofthouse Farm	Residential	46	1.97	Beckermet
HBE2	BE006	Land adjacent to Mill Fields	Residential	27	1.65	



Publication Site Ref	SHLAA Site Ref	Site Name	Site Allocation	Site Size	Site HA	Site Settlement
HMR1	MO009	Land to north of social club	Residential	37	1.35	Moor Row
HMR2	MO006a	Land to south of Scalegill Road	Residential	41	1.80	
HLO1	LO004	Solway Road	Residential	22	0.90	Lowca
HSU1	MO028	Summergrove	Residential	80	8.49	Westlakes Science Park
Mp010	Mp010	Round Close Farm	Residential	43	12.26	Moresby Parks
ES8	ELA2	Furnace Row	Employment	N/A	2.25	Distington
OCL1	CI005	Cleator Mills	Opportunity Site	N/A	3.8	Cleator

<sup>\*120</sup>no. dwellings assumed based on a live planning application submitted to Copeland Borough Council.



# 2.2 RESIDENTIAL SITE PRO FORMAS

# **SETTLEMENT HIERARCHY**

2.2.1. All residential site pro formas have been ordered to reflect CBC's settlement hierarchy. This is set out below, in **Table 2-6**. Please note that this wass correct at the time of writing.

**Table 2-6 - Copeland Borough Council Settlement Hierarchy** 

Hierarchy of Settlement	Definition	Settlements
Principal Town	The largest settlement in terms of population by a considerable margin with the broadest range of day-to-day services including the West Cumberland Hospital, a number of secondary schools and an extensive choice of convenience and comparison goods stores and employment opportunities. Well connected to neighbouring Boroughs by public transport.	Whitehaven
Key Service Centres	The Borough's towns are self-sufficient providing a wide range of services, including convenience and comparison	Cleator Moor
	stores, employment opportunities, schools and healthcare. They also act as service hubs for nearby villages.	Egremont
	They also act as service hubs for hearby villages.	
Local Service Centres	These centres have a supporting role to the Borough's towns containing a broad range of services. Settlements operate independently to meet day to day needs or as a	Arlecdon & Rowrah
	well-connected cluster, linked to a neighbouring town or	Cleator
	village of a similar scale by a frequent public transport service and/or safe pedestrian routes a mile or less in length.  Villages that scored over 15 points in the Village Services Survey July 2021	Distington & Common End
		Drigg & Holmrook
		Frizington
		Haverigg
		Seascale
		St Bees
		Thornhill
		Beckermet



Hierarchy of Settlement	Definition	Settlements
Sustainable Rural	Settlements which offer a limited number of services but which could support a limited amount of growth to	Bigrigg
Villages	maintain communities.  Villages that scored between 10 and 14 points in the	Ennerdale Bridge
	Village Services Survey July 2021	Moresby Parks
		Moor Row
		Lowca
		Parton
Other Rural Villages	Smaller settlements which offer one or two key services	Calderbridge
	but which are physically separated from settlements within a higher tier. Public transport and pedestrian links are	Hallthwaites
	poor therefore reliance is likely to be on the private vehicle. Limited development would enable future housing	Keekle
	needs to be met and support existing local services.  Villages that scored between 5 and 9 points in the Village	Kirkland
	Services Survey July 2021	Kirksanton
		Summergrove
		The Green
Open Countryside	Remaining parts of the Copeland Local Plan Area including smaller settlements or areas of sparse development not listed above.	
Rural Service Centres in Copeland under the jurisdiction of LDNPA	Settlements within Copeland but outside the jurisdiction of the Copeland Local Plan. Please see the Lake District National Park Local Plan for further information regarding these	Bootle Remaining part of Ennerdale Bridge Gosforth



# Site Name and Local Plan Reference: Land at West Cumberland Hospital and Sneckyeat Rd (HWH1)

**Site Location: Whitehaven** 

**Size (ha):** 5.22 **Dwellings:** 127 **Collisions:** SI: 30 Se: 6 F: 0

### SITE DESCRIPTION:

This is a brownfield site on land at the west Cumberland Hospital, much of which is existent visitor parking and/or vacant dwellings and former hospital building east of Homewood Drive. The site is approximately 500m from the A595 to the west.

NO. OF TRIPS (ARR)	AM PEAK (DEP)
12	39
4	15
1	4
0	0
	(ARR)

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	39	19
Walk / Cycle	8	7
Bus	3	1
Rail	0	0

#### SITE PHOTOGRAPHS:



View at the southern end of Homewood Hill.



Looking left on Homewood Drive from Homewood Hill.

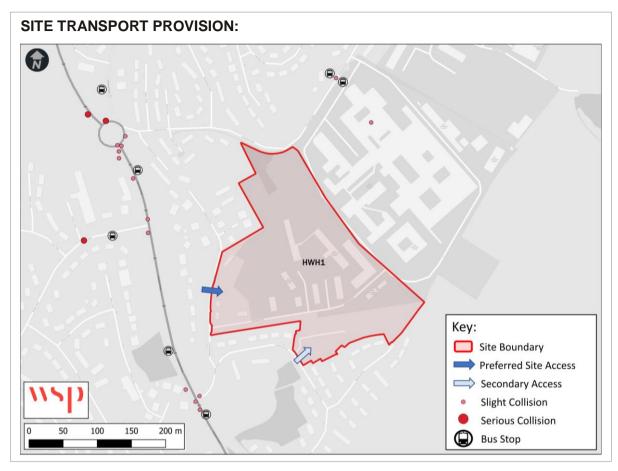


Looking right on Rutland Avenue from Homewood Drive.



View at the site boundary at Rutland Avenue.





## **WSP Comments:**

This is a proposed residential site for up to 127no. dwellings located immediately west of the West Cumberland Hospital.

The site interacts with the main one-way system within the hospital site, which is accessed from Homewood Road. This is not part of the adopted highway and leads to Homewood Drive via Homewood Hill which are also unadopted. These roads link in turn to Rutland Avenue, which is within the adopted highway and continues southward to a priority junction with the A595. West of this entrance, the site is located south of Homewood Road, at a notable level difference.

For the purposes of this assessment it is assumed that future access could not be taken from the hospital site access road (one-way system) and therefore would not link to the existing main hospital access with Homewood Road.

The CTIS identifies a requirement for this site to contribute to capacity improvements at the aforementioned roundabout, along with other local plan sites in the Whitehaven area. Other relevant highways improvements identified within the CTIS include safety improvements at the Sneckyeat Road/ Homewood road crossroads, and capacity improvements at the Overend Road and Cleator Moor Road junction.

Primary access could be achieved via Rutland Avenue. Consideration would have to be given to the impact on capacity in this location, and the impact of additional right turning traffic on the A595. The existing gradients do not appear to conform to the maximums as set out in the CDDG.



Should any of the existing internal roads be repurposed to serve the development, it will be necessary to provide footways on both sides of the carriageway which should be widened to minimum 5.5m where this is not currently the case where more than 50 dwellings are served.

In terms of active travel measures, the CTIS identified improved crossing facilities at the Homewood Road / A595 / B5295 roundabout.

In addition, proposals should provide links and possible upgrades to footpath FP431029 to improve connectivity to the Sneckyeat Road Industrial estate.

Internally, secondary access locations could include the existing Garage access on Rutland Avenue. However, in order to meet CDDG standards, and serve proposed and existing dwelling numbers, a secondary access onto the wider network would be required.

Prospective access from Homewood Road, as a potential secondary access, is a concern given the level of forwards visibility for westbound traffic approaching the junction, and likely vehicle speeds owing to the gradient in this location. It is unclear whether suitable visibility splays could be achieved from this location, taking into consideration the requirement of a maximum 1:10 gradient within the CDDG.

It is considered that this level of development would need to be assessed in detail in terms of the impact of additional traffic on the Rutland Way/ A595 junction. There would, however, be a potential loss of the existing through traffic to the hospital. There are also existing residential properties (some vacant) which could in theory generate vehicular trips if brought back into use. These matters could be considered when assessing the impact of new dwellings on this site. Several slight PIAs have been recorded around this junction and safety impacts also require consideration.

Whilst access could be achieved it is anticipated that the overall quantum of dwellings would be restricted by these matters. Further detailed assessment work, at the time of a planning application will be required to justify an acceptable level of development in this location.



Site Name and Local Plan Reference: Land at Edgehill Park (the additional land to the east of the approved site) (HWH3)

Site Location: Whitehaven

**Size (ha):** 6.27 **Dwellings:** 120 **Collisions:** SI: 4 Se: 0 F: 0

### SITE DESCRIPTION:

This land, lying north of residential development and east of the former Marchon site, is a greenfield plot adjacent to Woodville Way, approximately 2.0km south of the centre of Whitehaven.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	17	54
Walk / Cycle	6	21
Bus	1	6
Rail	0	1

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	54	26
Walk / Cycle	11	9
Bus	4	2
Rail	1	0

### **SITE PHOTOGRAPHS:**



Looking right on Woodville Way approximately 100 metres prior to the speed limit.



Existing site entrance on Woodville Way.

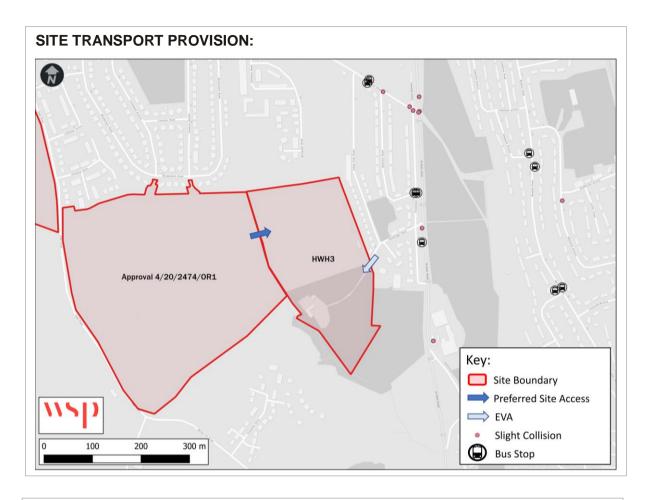


View of site boundary from Windermere Road.



View of site boundary from Gameriggs Road.





#### **WSP Comments:**

This proposed site would deliver 120no. dwellings. It should be noted that this assessment relates only to the land east of those sites already approved under planning application reference 4/13/2235/0O1 (for up to 431 dwellings) and 4/20/2474/0R1 (reserved matters for 335no. dwellings. The latter, although not built would be accessed from Wilson Pit Road and connect into the adjacent site.

Due to the number of dwellings served in total, it is considered that a secondary access would be required.

It is considered that Gameriggs Road could provide a suitable secondary access. Depending on the number of units that are likely to be accessed from this route, it may be necessary to introduce TROs to manage on-street parking along this road to ensure that additional traffic may be safely accommodated and to improve conditions for pedestrians wishing to access the B5345 corridor.

In terms of active travel the CTIS identifies a requirement for this site to contribute to traffic calming measures along High Road and Woodville Way, along with widening existing footways on Ennerdale Terrace, Ginns to Kells Road, and Ginns to create a shared footway/cycleway.

The CTIS also identifies a need for this development to contribute to safety improvement at the St Bees Road /Mirehouse Road junction in Whitehaven, along with capacity improvements at Cleator Moor Road / Overend Road junction.



Given that primary access through the existing sites would increase the loading on Wilson Pit Road in this location, there would be a need to consider the cumulative impact on its junction with St. Bees Road, for trips into Whitehaven and towards the A595.

The layout of the development should maximise use of footpath FP43103 including widening, surfacing, street lighting, and an extended connection to the west to provide a continuous direct link to Wilson Pit Road.



# Site Name and Local Plan Reference: Land south and west of St Mary's School (HWH4)

**Site Location: Whitehaven** 

 Size (ha): 2.36
 Dwellings: 60
 Collisions: SI: 11
 Se: 0
 F: 1

### SITE DESCRIPTION:

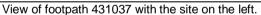
This site is located adjacent to St. Mary's School and Seacliffe Pharmacy. To the south lies an existing private access road previously part of the Marchon Chemical Manufacturing Complex. There are a number of coastal public rights of way (footpaths) in the vicinity of the site.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	9	30
Walk / Cycle	3	12
Bus	0	3
Rail	0	0

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	30	15
Walk / Cycle	6	5
Bus	2	1
Rail	0	0

### SITE PHOTOGRAPHS:







View of the site.

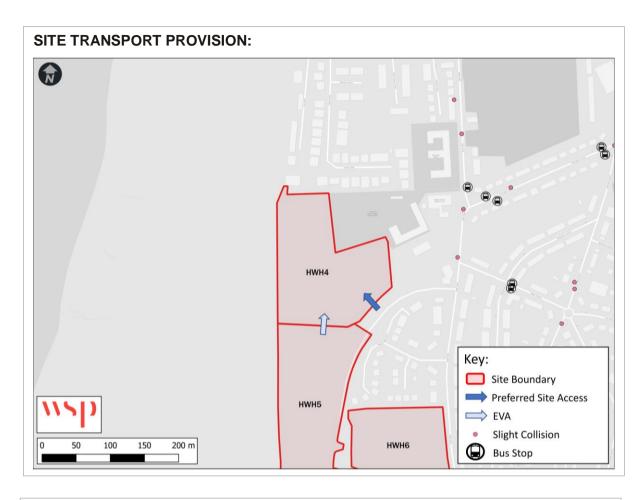


View of the site from Colliers Way.



View of a house bounded by the northern extents of the site.





#### **WSP Comments:**

The site, for around 60no. dwellings, is situated north of an unadopted private access road adjoining High Road via priority controlled junction adjacent to the Seacliffe Pharmacy. This appears to be the only realistic prospect for access in the existing situation. This access road is not to CDDG standards and does not provide street lighting or adequate footway widths. Should the site promoter be able to gain access via this road It is considered that it would be necessary to upgrade this route to CDDG standards in order to provide suitable safe access to the development site for all modes.

Due to its size and assuming that it would indeed deliver less than 100no. dwellings, the site would be required to provide an emergency vehicle access (EVA access).

Should the adjacent site HWH5 be delivered it may be possible to deliver an EVA access from this location. It would be necessary to consider the cumulative impact of this development on the existing private access road/ High Road junction with other adjacent sites including the former Marchon sites. As per comments on other nearby sites, the overall cumulative impact of the development in the context of the wider former Marchon site and nearby local plan sites would need to be considered. Whilst it is noted that modelling has been completed to inform the CTIS, any Transport Assessment for the site would need to consider actual flows, future baseline, and committed development at that time.

It is considered that due to the observed levels of on-street parking along this route, it may be necessary to deliver TROs alongside the site access to limit the impact of on



street parking on visibility and minimise the impact on two-way flows as this site, and other adjacent sites are brought forward. Overspill parking from the adjacent pharmacy was observed during the site visit.

The CTIS also identifies HWH4 as one site required to contribute towards traffic calming measures along High Road and Woodville Way, as well as delivery of widened footways on Ennerdale Terrace, Ginns to Kells Road, and Ginns to create a shared use footway/cycleway.

The Stagecoach 2 and 2a services into Whitehaven town centre operates on High Road along Ennerdale Terrace and Ginns to Kells Road. The nearest stop is approximately 150m from the site entrance. The site could deliver improved waiting facilities i.e. a shelter, subject to feasibility considerations at this, or other nearby stops.



# **Site Name and Local Plan Reference: Former Marchon Site North (HWH5)**

**Site Location: Whitehaven** 

### SITE DESCRIPTION:

This is a large brownfield site situated on the former Marchon chemical manufacturing complex. It lies adjacent to Woodville Way, approximately 2.0km south of the centre of Whitehaven.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	51	165
Walk / Cycle	17	63
Bus	2	18
Rail	0	2

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	163	80
Walk / Cycle	33	29
Bus	12	6
Rail	2	0

#### **SITE PHOTOGRAPHS:**



View of footpath 431037, part of the site extents.



Looking right on Woodville Way along the eastern site boundary.

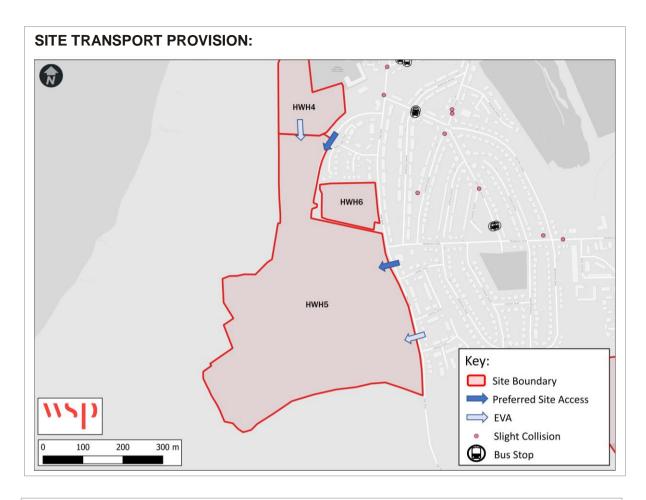


Looking left on Woodville Way along the eastern site boundary.



View of existing gated access at the eastern site boundary.





#### **WSP Comments:**

This site is proposed to serve 532no. dwellings. It is situated west of Woodville Way south west of Whitehaven town centre. Woodville Way/ High Road are classified unnumbered roads subject to a 30mph speed limit across the site frontage.

This number of dwellings would require the delivery of at least two 'primary roads' - as defined in the CDDG – to serve a maximum of 300no. dwellings each. These parcels would in turn need to provide a secondary point of access.

The eastern boundary aligns with Woodville Way, which is subject to a 30mph speed limit, which increases to a 40mph limit southbound. This could provide at least one of two primary access locations for the site. The private access road to the north could provide a second primary access point for the site. The latter would require the delivery of widened footways, surfacing, and street lighting. Access from the former would need to consider the vertical alignment of the road and the impact of on-street parking which may impede visibility. Siting of accesses here should also consider separation distances from the opposing residential cul-de-sacs, although it is considered that this could be achieved. The speed limit should be located to ensure that the site frontage is within a 30mph speed limit.

Secondary/ EVA access could be achieved through the adjacent site to the north, HWH4, and from other locations along Woodville Way. Similarly, these locations should consider separation distances from opposite junctions, on-street parking, and the vertical alignment of Woodville Way which may restrict visibility.



In terms of highways mitigation and improvement, this site is identified to deliver a number of schemes within the CTIS. This includes contributions towards capacity improvements at the Cleator Moor/ Overend Road junction, safety improvements at the St. Bees Road/ Mirehouse Road junction.

In addition to the above, given the scale of this site and surrounding development, the overall cumulative impact of the development in the context of the nearby local plan sites would need to be considered. Whilst it is noted that modelling has been completed to inform the CTIS, any Transport Assessment for the site would need to consider actual flows, future baseline, and committed development at that time. This may necessitate further mitigation not identified as part of the CTIS.

In terms of active travel this site has been identified to contribute towards traffic calming measures along High Road and Woodville Way, as well as delivery of widened footways on Ennerdale Terrace, Ginns to Kells Road, and Ginns to create a shared use footway/cycleway.

There are a number of existing coastal public footpaths to the west of the site which connect into Whitehaven to the town centre. These could provide desirable traffic-free routes for future residents. It may be appropriate to request that the footpaths are surfaced, widened, and upgraded to bridleway to permit cycling as part of this scheme. Street lighting should also be requested.

It is anticipated that a site of this scale would contribute a notable increase in demand for bus services, particularly those into Whitehaven, e.g. at Woodhouse Road, Ennerdale Terrace, and High Road. This site should therefore contribute to bus stop improvements in the form of covered shelters, for example.

Furthermore, the scale of additional traffic along Woodville Way High Road may necessitate the delivery of a controlled pedestrian crossing point to ensure safe access for more vulnerable users in particular, providing safe crossing opportunities to bus stops and shops in the adjacent residential estate(s).



# Site Name and Local Plan Reference: Land South of Waters Edge Close (HWH6)

Site Location: Whitehaven

 Size (ha): 1.41
 Dwellings: 35
 Collisions: SI: 11
 Se: 0
 F: 0

## SITE DESCRIPTION:

HWH6 is a small parcel adjacent to the larger former Marchon site adjacent to High Road. It is bound to the north by an existing residential estate; Waters Edge Close which is, in turn, immediately south of Seacliffe Pharmacy and St Marys Catholic Church and Primary School.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	3	11
Walk / Cycle	1	4
Bus	0	1
Rail	0	0

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)	
Total Vehicles	11	5	
Walk / Cycle	2	2	
Bus	1	0	
Rail	0	0	

### **SITE PHOTOGRAPHS:**



Looking right on High Road along the eastern site boundary.



Looking left on High Road along the eastern site boundary.

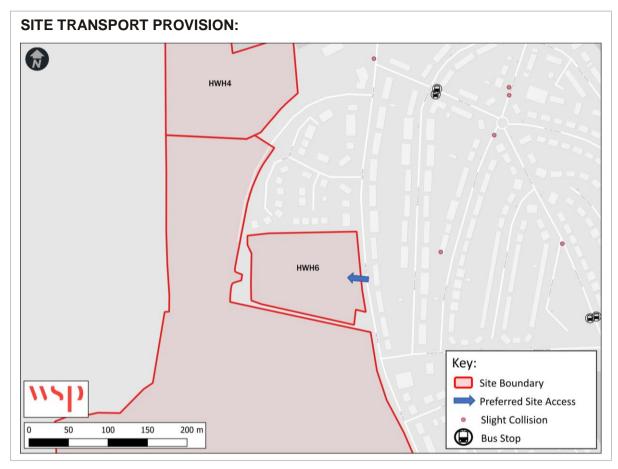


View of existing gated access into the site extents.



View of existing gated access from the eastern side of High Road.





### **WSP Comments:**

This proposed site would deliver 36no. residential dwellings. It would be accessed from High Road. High Road is subject to a 30mph speed limit in this location. There is an existing point of access that would provide a suitable location for the primary access to the site, located opposite existing dwellings with direct frontage and access onto High Road. It would however require reconfiguration to conform to CDDG standards.

The site would not require emergency or secondary access at the proposed scale of development.

Whilst this site would not in and of itself deliver a volume of traffic that could be considered to have a severe impact on the safety or operation of local junctions at this time (provided access is delivered to CDDG standards), the overall cumulative impact of the development in the context of the wider former Marchon site and nearby local plan sites would need to be considered. Whilst it is noted that modelling has been completed to inform the CTIS, any Transport Assessment for the site would need to consider actual flows, future baseline, and committed development at that time.

The CTIS also identifies a need for improvements at the junction of St Bees Road /Mirehouse Road, Whitehaven to improve safety conditions in this location.

It is considered that due to the observed levels of on-street parking along this route, it may be necessary to deliver TROs alongside the site access to limit the impact of on street parking on visibility and minimise the impact on two-way flows as this site, and other adjacent sites are brought forward.



The CTIS also identifies HWH6 as one site required to contribute towards traffic calming measures along High Road and Woodville Way, as well as delivery of widened footways on Ennerdale Terrace, Ginns to Kells Road, and Ginns to create a shared use footway/cycleway.

The Stagecoach 2 and 2a services into Whitehaven town centre operates on High Road along Ennerdale Terrace and Ginns to Kells Road. The nearest stop is approximately 400m from the site entrance. The site could deliver improved waiting facilities i.e. a shelter, subject to feasibility considerations.



## Site Name and Local Plan Reference: Land at Jacktrees Road (HCM1)

**Site Location: Cleator Moor** 

### SITE DESCRIPTION:

This site is located on Cleator Gate / Jacktrees Road at the southern edge of Cleator Moor between residential dwellings in the north and agricultural land to the south. It has direct interfaces with Cleator Gate, on approach to Cleator Moor, and Holden Place, a residential cul-de-sac.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	12	39
Walk / Cycle	4	15
Bus	1	4
Rail	0	0

M PEAK (DEP)
19
7
1
0

#### SITE PHOTOGRAPHS:



Visibility to the left from the preferred site access, looking along Jacktrees Road.



Visibility to the right from the preferred site access, looking along Jacktrees Road.



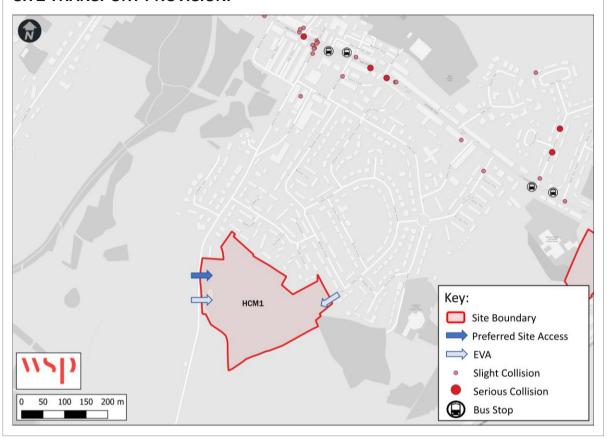
View of the site boundary from the western side of Jacktrees Road.



View of the site from the additional access from Holden Place.



#### SITE TRANSPORT PROVISION:



# **WSP Comments:**

The CTIS identifies a number of active travel infrastructure improvements associated with this site including the widening of footways to the northern boundary of the site, traffic calming measures along Jacktrees Road and upgrading of footpath 403015 to bridleway, with associated surfacing improvements.

The most suitable point of access is considered to be from Jacktrees Road itself north of the existing agricultural access within the existing 30mph speed limit.

Secondary access may be taken to the south, closer to the existing agricultural access which would benefit from being located on the outside of the bend. Moving the 30mph speed limit gateway may be appropriate, which would reduce the potential impacts on hedgerows of delivering visibility splays from any access in this location. Following forwards visibility of right turning traffic would also need to be considered in more detail for this location to avoid any need for acquisition of 3rd party land on the opposite side of Jacktrees Road. If necessary, access may be moved north, aided by the extension of the 30mph limit to the south, taking into account separation distance from the primary access.

A further secondary point of access is possible from Holden Place, although capacity on this route is limited by significant levels of on street parking in the vicinity, and distance from higher category/ capacity roads; being primarily served from narrow, residential streets.



The provision of footways along Jacktrees Road/ Cleator Gate from the site access would be necessary. As per the CTIS recommendations, active travel connections to the north at various locations would be necessary to minimise dependence on Cleator Gate/ Jacktrees Road and increase accessibility to Cleator Moor and bus services on the B5295.



# Site Name and Local Plan Reference: Land north of Dent Road (HCM2)

**Site Location: Cleator Moor** 

 Size (ha): 3.91
 Dwellings: 96
 Collisions: SI: 8
 Se: 4
 F: 0

## SITE DESCRIPTION:

This site is located in the north east of Cleator Moor, adjacent to the A5086. It would provide a northerly extension to existing residential areas lying north of the B5393 through Cleator Moor.

NO. OF TRIPS	AM PEAK (DEP)
9	30
3	11
0	3
0	0
	(ARR) 9 3

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	29	14
Walk / Cycle	6	5
Bus	2	1
Rail	0	0



Looking left on Frizington Road at the existing gate along the site boundary.



Looking right on Frizington Road at the existing gate along the site boundary.



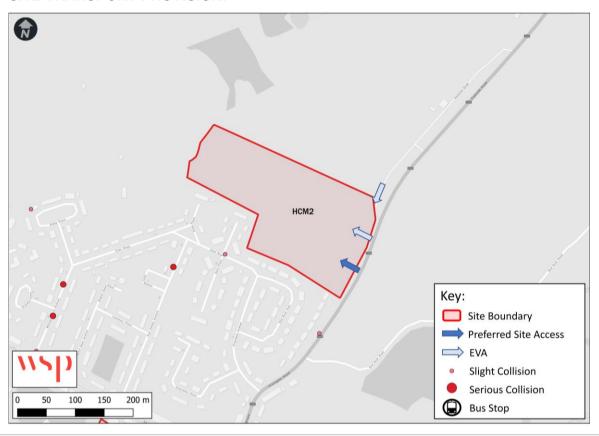
Existing gate at the site boundary on Frizington Road.



Looking left on Frizington Road further north from the existing gate along the site boundary.







The speed limit transitions to the national speed limit, from a 30mph section in close proximity to the southern boundary of the plot, where it meets the highway verge on Frizington Road A5086. There is an existing field gate access to this plot with established visibility splays, although these would not currently meet DMRB requirements for a 60mph road.

An emergency vehicle access would be required, which could be delivered further north on the A5086, or potentially via the adopted unclassified access track running parallel to the A5086. In any case the latter would provide a walking/cycling connection northbound.

It is considered that the 30mph should be relocated north to encompass the site access and ensure that MfS compliant visibility splays could be achieved.

The site benefits from connections to NCN71, a traffic-free route with connectivity to Cleator Moor. Improving infrastructure alongside the A5086/ Utilising Parkside Road and an unclassified parallel track could improve the sustainable credentials of the site, which is otherwise approximately 1.5km walking/ cycling distance from the centre of Cleator Moor. The nearest bus stops are situated 500m south of the site on Ennerdale Road B5295.

In any case, it is considered that improvements to the existing sub-standard width footway on the A5086 would be required (to minimum 2.0m) or 3.0m for shared footway cycleway.



# Site Name and Local Plan Reference: Former Ehenside School (HCM3)

**Site Location: Cleator Moor** 

## SITE DESCRIPTION:

This site is comprised of land that was formerly Ehenside School. It is within Cleator Moor, west of Wath Brow between Montreal Primary School and Towers Street, which serves a residential area.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	4	12
Walk / Cycle	1	5
Bus	0	1
Rail	0	0

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	12	6
Walk / Cycle	2	2
Bus	1	0
Rail	0	0



Looking right on Towerson Street along the site boundary.



Looking left on Towerson Street along the site boundary.

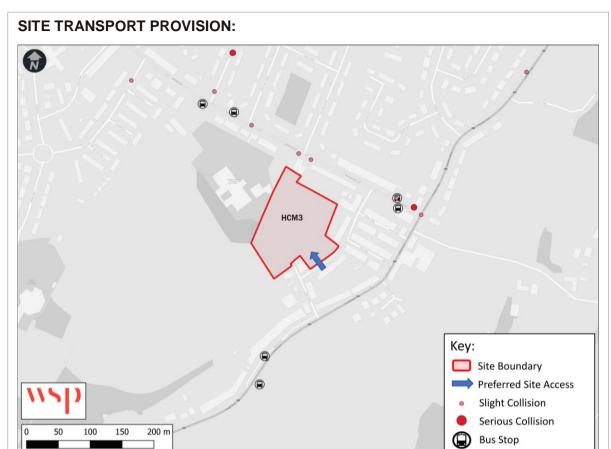


View of Roper Street potential access to the site.



View from access street for Montreal CofE Primary School towards Ennerdale Road.





This site, estimated to accommodate 40no. dwellings, could be accessed from Towerson Street, where the access to the former school site used to be. The site boundary is on the inside of a bend of the road, and thus the access should be located at the southern section of the site boundary with Towerson Street, ensuring that the minimum separation distance requirement from Roper Street is maintained.

During the site visit, on-street parking was observed, restricting the visibility. Any future detailed assessment should consider the impact of this parking in the context of additional traffic from the development, but it is not anticipated that it would be an overriding barrier to the site coming forward given the scale of the site.

The existing footway provision along the site boundary on Towerson Street is substandard based on the CDDG and would require widening to minimum 2.0m. This would provide safe connections to the nearest bus stops, approximately 200 meters from the site. The site could deliver improved waiting facilities at these stops, which are currently flag and pole type stops with no shelters.

The CTIS has also identified traffic calming measures along Towerson Street to be delivered in order to bring this site forward.

No secondary or emergency access is required for a development of this scale.



# Site Name and Local Plan Reference: Land north of Ashlea Road (HEG1)

**Site Location: Egremont** 

 Size (ha): 5.21
 Dwellings: 108
 Collisions: SI: 2
 Se: 1
 F: 0

#### SITE DESCRIPTION:

HEG1 is situated at the very west of Egremont, north of Grove Road; a classified unnumbered road connecting Egremont to St Bees in the west. A residential estate is located immediately to the east, served primarily from Ashlea Road.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	10	33
Walk / Cycle	3	13
Bus	0	4
Rail	0	0

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	33	16
Walk / Cycle	7	6
Bus	2	1
Rail	0	0



Looking right on Grove Road along the southern site boundary.



Looking left on Grove Road along the southern site boundary.

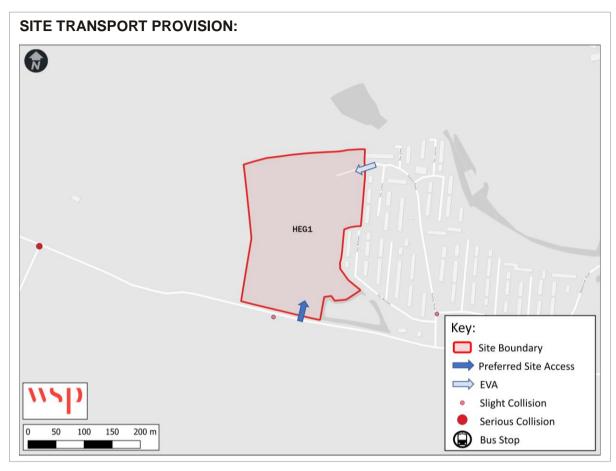


View of Ashlea Road dead end and eastern site boundary.



View of The Willows dead end in proximity to eastern site boundary.





This site, estimated to accommodate 108no. dwellings, could be accessed primarily from Grove Road with good lines of visibility, and therefore access could be provided at any point along the road. However, the site extents on Grove Road are subject to the national speed limit, so it is recommended that the current 30mph speed limit is extended west of the site to improve safety.

The good forward visibility on Grove Road along the site boundary is likely to encourage non-compliance even if the speed gateway is relocated, so introduction of traffic calming measures or gateway features along this section may be required to reduce speeds and improve conditions for pedestrians and cyclists. Provision of street lighting for the proposed access should also be considered.

Emergency Vehicle Access (EVA) is required in line with the CDDG standards. The only location that would not involve third party land is from Ashlea Road, providing a connection to the residential areas to the east.

A pedestrian footway should be provided on Grove Road along the southern boundary of the site. However, this would require also extending the footway provision through a third party land for continuity. A footway connecting the EVA with the existing footway on Ashlea Road should be provided. This would enable pedestrian connectivity to the nearest bus stops on Baybarrow Road. There is currently a footpath surrounding the eastern extents of the site from The Willows to Ashlea Road, which provides further pedestrian access, away from motorised traffic.

The CTIS has also recommended traffic calming measures on St Bridget's Lane and Baybarrow Road to connect to the site via Ashlea Road.



# Site Name and Local Plan Reference: Land at Gulley Flatts (HEG2)

**Site Location: Egremont** 

 Size (ha): 3.26
 Dwellings: 170
 Collisions: SI: 0
 Se: 0
 F: 0

### SITE DESCRIPTION:

HEG 2 is a greenfield parcel to the south west of site HEG3. It is bound to the east and west by Uldale View and Queens Drive respectively. It neighbours residential areas to the north including Royal Drive, an existing residential cul-de-sac.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	16	53
Walk / Cycle	5	20
Bus	1	6
Rail	0	1

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	52	26
Walk / Cycle	11	9
Bus	4	2
Rail	1	0



Looking right along the eastern side of Queens Drive. Site extents are on both sides of Queens Drive.



Looking left along the eastern side of Queens Drive. Site extents are on both sides of Queens Drive.

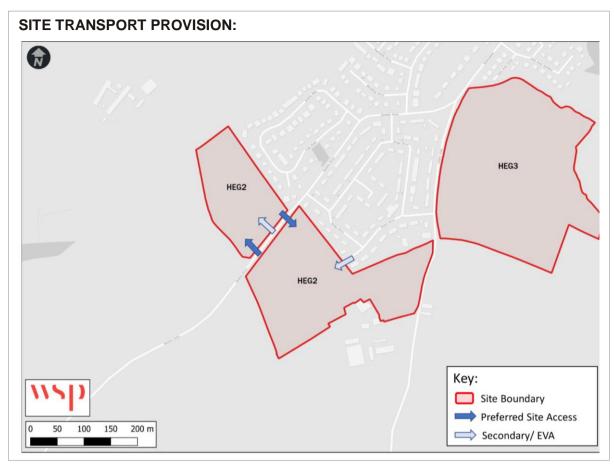


View of the northern site boundary from Royal Drive.



Visibility to the left Uldale View along the northeastern edge of the site boundary.





This is a proposed site for 170no. dwellings bisected by Queens Drive; a classified unnumbered road subject to a 30mph speed limit from approximately its junction with Kings Drive. West of the existing residential areas, Queens Drive becomes of a more rural character, being subject to the national speed limit for a single carriageway road and providing no street lighting, footways or centre lighting. The gradient of Queens Drive rises from east to west on approach to the development site frontages.

The northern parcel based on the assumed density could provide up to 55no. dwellings and would require an EVA. The southern parcel, which interfaces not only with Queens Drive but also Uldale View, would be required to provide a secondary access. For each site it is anticipated that primary access would be taken from Queens Drive. For the southern parcel, it appears secondary access may be achieved via an extension of the existing stub road on Royal Drive to the north east of the site, or via Uldale View. The latter is considered to be less suitable given existing carriageway width and forwards visibility and would therefore require upgrading of the existing access road to accommodate any increase in traffic associated with the development.

Achieving access from Queens Drive would necessitate moving the 30mph speed limit west of the site frontages, and the delivery of footways and street lighting across each frontage. These may be located to achieve the required separation distances.

The CTIS identified Bookwell and Main Street/ Castle Villas as roads of concern where capacity at local junctions was considered to be constrained. Whilst concerns over



managerial considerations (i.e. local acceptance, feasibility) led to their removal from the final scheme shortlist, any development on this site would need to consider the impact of this development and adjacent sites (e.g. HEG3) on these routes and identify any specific mitigation required at these junctions through a Transport Assessment.

In terms of active travel, the CTIS identifies a requirement for traffic calming and localised footway improvements on Brookwell.

The nearest bus stops are located around 800-1000m from the site in Egremont, serving the number 30 service between Egremont and Whitehaven. Therefore, discussions with the local bus operator to provide additional bus stops might be required.



# Site Name and Local Plan Reference: Land to south of Daleview Gardens (HEG3)

**Site Location: Egremont** 

 Size (ha): 7.74
 Dwellings: 141
 Collisions: SI: 2
 Se: 0
 F: 0

### SITE DESCRIPTION:

This site is a greenfield parcel situated east of Uldale View and 'Bookwell'; both classified unnumbered roads. Both serve a residential area to the west of the site.

NO. OF TRIPS (ARR)	AM PEAK (DEP)
13	44
5	17
1	5
0	0
	<b>(ARR)</b>

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	43	21
Walk / Cycle	9	8
Bus	3	2
Rail	0	0



Visibility to the right on Uldale View along the western site boundary.



Visibility to the left on Uldale View along the western site boundary.

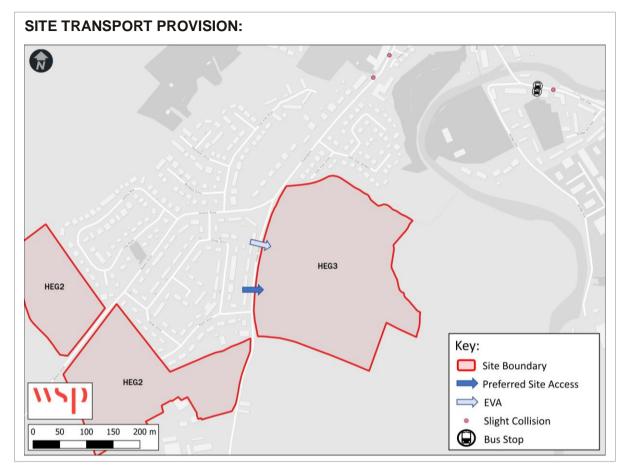


View of Uldale View and Queens Drive junction.



View of northern site boundary from Dale View Close.





This site is estimated to accommodate for 141no. dwellings and should be accessed from Uldale View to avoid third party land acquisition.

The site is located on the inside of a curve in the road, so the visibility along Uldale View from the site is slightly restricted by the horizontal alignment. There is currently a retaining wall, extending approximately 20 metres at the middle section of the western site boundary, which limits the visibility on Uldale View along the site boundary. Due to potential for conflicting movements at the junction with Bookwell and Queens Drive, the primary access is recommended to be located south of the retaining wall and north of Royal Drive.

A secondary or emergency access is required for a development of this scale, so the preferred point of access would be just north of the retaining wall along Uldale View. This would provide a safe distance from the junction with Bookwell.

Uldale View was observed to be subject to extensive on-street parking and it is recommended that any future detailed assessment considers the impact of this parking in the context of additional traffic from the development.

There is currently no pedestrian provision on the eastern side of Uldale View along the site boundary. Removal of the wall, along with vegetation clearance, is required for the provision of footway along the western site extents, which will also ensure maximum visibility at the accesses to the site. The provision of a footway will enable pedestrian access to the local amenities and services in Egremont. The nearest bus stop is approximately 700 metres from the site, and thus it is not very accessible by public transport. Therefore, discussions with the local bus operator to provide additional bus stops might be required.



# Site Name and Local Plan Reference: Land west of Grammerscroft (HMI1)

Site Location: Millom

 Size (ha): 4.28
 Dwellings: 107
 Collisions: SI: 1
 Se: 0
 F: 0

#### SITE DESCRIPTION:

HMI1, in Millom, is a greenfield plot to the west of a number of residential cul-de-sacs including Grammerscroft and Old Moor Gardens. It is bound to the south by the Cumbrian Coast railway line between Millom and Silecroft. It is approximately 750m from Millom town centre.

NO. OF TRIPS (ARR)	AM PEAK (DEP)
10	33
3	13
0	4
0	0
	<b>(ARR)</b>

NO. OF TRIPS (ARR)	PM PEAK (DEP)
33	16
7	6
2	1
0	0
	(ARR) 33 7



View of northern site boundary from Grammerscroft.



View of Grammerscroft and Croft Close junction from northern site boundary.

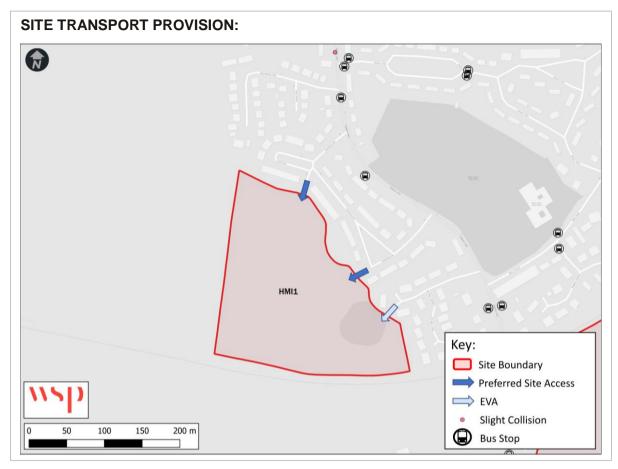


View of eastern site boundary from Grammerscroft.



View of eastern site boundary from Old Moor Gardens.





This site to the west of Grammerscroft in Millom is estimated to serve 107no. residential dwellings.

The site could be served from the stubs of two existing cul-de-sacs stemming from Grammerscroft, which appear to be well-suited for extension of the existing carriageways and footways. Based on the site boundary it is unclear whether 3rd party land is situated between the site and existing roads, and therefore whether the site promoter can achieve this connection.

At the junction of the cul-de-sac at Grammerscroft and Croft Close, the island with parking bays might require some realignment to provide a safe access to the site. At the southern cul-de-sac of Grammerscroft, traffic to the site currently does not have priority at the junction with Grammerscroft, which might cause confusion. An alternative access to the site may be possible from the cul-de-sac of Old Moor Gardens.

To provide pedestrian access, the footway should be extended, and this would connect to the nearest bus stops at Palmers Lane. Off-site improvements were identified as part of the CTIS, including pedestrian refuge crossing on Palmers Lane and traffic calming measures on Grammerscroft, Palmers Lane and Moor Terrace.



## **Site Name and Local Plan Reference: Moor Farm (HMI2)**

**Site Location: Millom** 

 Size (ha): 6.79
 Dwellings: 195
 Collisions: SI: 0
 Se: 0
 F: 0

### SITE DESCRIPTION:

HMI2, is a greenfield site to the west of a number of residential cul-de-sacs including Bassenthwaite Close, Ennerdale Close and Whinlatter Close. It is bound to the north by the Cumbrian Coast railway line between Millom and Silecroft. Haverigg Road lies to the west; a classified unnumbered road between Millom and Haverigg. The site is approximately 500m south of Millom town centre.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	19	60
Walk / Cycle	6	23
Bus	1	6
Rail	0	1

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	60	29
Walk / Cycle	12	11
Bus	4	2
Rail	1	0



Visibility to the left on Haverigg Road along the south western edge of the site boundary.



Visibility to the right on Haverigg Road along the south western edge of the site boundary.

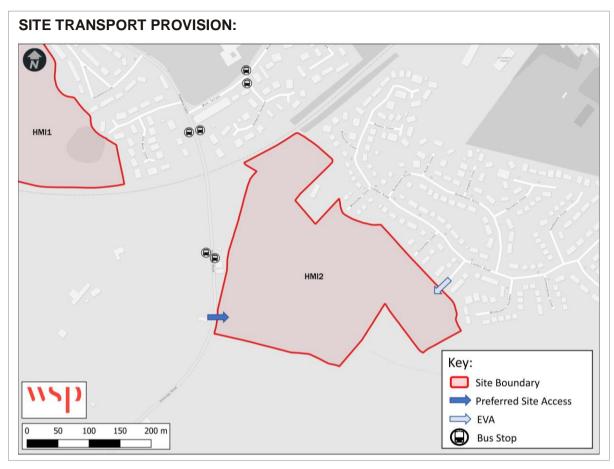


View of pedestrian level crossing leading to the northeastern edge of the site boundary and Church Walk.



View of eastern site boundary from Bassenthwaite Close.





This is a potential residential development site for up to 195no. dwellings. Given its size, a secondary point of access would be required.

The site is located to the west of unclassified residential cul-de-sacs including Whinlatter Close, Ennerdale Close, and Bassenthwaite Close. These roads are, in turn, accessed from Lowther Road. The site boundary also lies close to Haverigg Road, to the west, which is a classified unnumbered road subject to a 30mph speed limit.

Access via Haverigg Road is considered to be the most suitable point of primary access. It is considered that acceptable visibility could be achieved in this location. Any of the aforementioned cul-de-sacs could operate as a secondary point of vehicular access. In any case it is considered that cycling and pedestrian permeability should be encouraged through these residential areas to maximise accessibility and convenience for trips to services in Millom.

FP415007 bisects the site and these adjacent cul-de-sacs, running across the railway between Millom and Silecroft north west of the site.

Active travel infrastructure improvements identified as part of the CTIS associated with this site include the delivery of a TOUCAN crossing on St. George's Road in proximity to Church Walk, surfacing and upgrading of Church Walk to bridleway, and Surface improvements and changing of the designation of FP415007 to bridleway.

Similar improvements to the footway south of the site to provide a shared footway cycleway and upgrading of the existing footpath to bridleway with surfacing and widening (FP415008) would provide an off-road route towards Haverigg, which would promote a more inclusive active travel route south of the site.



There are no existing bus services in south Copeland. The CTIS identifies a need to provide a bus stop with shelter within 400m of the site, situated on Haverigg Road. This would serve a new bus service on this corridor. It is anticipated that developer funding or other subsidy would be required to make this service commercially viable.



# Site Name and Local Plan Reference: Land East of Arlecdon Road (HAR1)

**Site Location: Arlecdon** 

## SITE DESCRIPTION:

This site is situated east of Arlecdon Road, Arlecdon north east of Cleator Moor. The site was observed to currently be in use as part of works carried out by United Utilities' West Cumbria Supply Project.

NO. OF TRIPS (ARR)	AM PEAK (DEP)
4	11
1	4
0	1
0	0

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	11	6
Walk / Cycle	2	2
Bus	1	0
Rail	0	0



Looking left along site boundary on Arlecdon Road.



Looking right along site boundary on Arlecdon Road.



View at current works access from the western side of Arlecdon Road.



View at unclassified access track adjacent to 28 Arlecdon Road.



#### SITE TRANSPORT PROVISION:



# **WSP Comments:**

This site, for an estimated 37no. dwellings could be accessed directly from Arlecdon Road. United Utilities works were ongoing at the time of the site visit, demonstrating that temporary access has been deemed acceptable in this location.

Whilst acceptable access is considered to be achievable it was however noted that the site lies adjacent to the crest of a hill which may restrict visibility to the south. It is therefore recommended that any access is situated to ensure visibility from the site access of northbound vehicles to required standards. Arlecdon Road is subject to a 30mph speed limit in this location.

Footways on both sides of Arlecdon Road are of a sub-standard width and development of the site would require the provision of 2.0m minimum footways at least along the site frontage to provide connectivity with amenities located to the south in Arlecdon and the nearest bus stop situated at the junction of Arlecdon Parks Road (A5086) and Arlecdon Road, approximately 300m south of the site.

The CTIS has also identified traffic calming measures, and footway surface improvements along Arlecdon Road as schemes to be delivered in order to bring this site forward.



# Site Name and Local Plan Reference: Land South of Prospect View (HDI1)

**Site Location: Distington** 

**Size (ha):** 1.21 **Dwellings:** 30 **Collisions:** SI: 6 Se: 0 F: 1

### SITE DESCRIPTION:

This site is situated south west of Prospect View in south Distington; an existing residential cul-de-sac serving approximately 16no. dwellings. It lies south of industrial employment land uses accessed from Main Street, which bisects Distington itself.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	3	9
Walk / Cycle	1	4
Bus	0	1
Rail	0	0

NO. OF TRIPS (ARR)	PM PEAK (DEP)
9	5
2	2
1	0
0	0
	<b>(ARR)</b> 9



Prospect View section joining the junction with Main Street and B5306.



View of the site boundary from Prospect View.

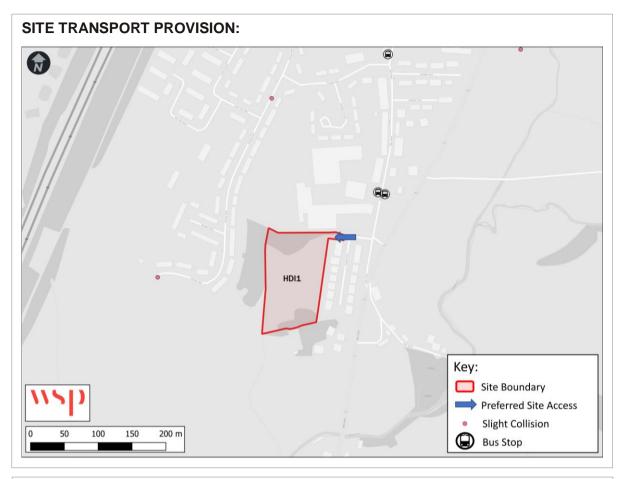


Potential access via Hinnings Road.



Visibility to the right from potential access via Hinnings Road.





There is an existing field gate in the north east corner of the proposed site, adjoining Prospect View. Prospect View is in turn accessed from Main Street, within a 40mph speed limit adjacent to a further junction with the B5306.

This existing access would appear to be the most suitable access for the development and would avoid the need for 3rd party land acquisition. Further feasibility work would be required to confirm the deliverability of a 4.8m secondary road carriageway with footways on each side along with the potential to meet the maximum gradient of 1 in 10. It would however appear possible to deliver at least one 2.0m footway alongside the carriageway with clearance of exiting vegetation. We note that the indicative development size of 30no. dwellings combined with the existing 16no. dwellings accessed from Prospect View would not exceed the 50no. dwellings that could necessitate widening of the existing carriageway adjoining Main Street, which appears to be around 5.0m width. No emergency access is required for 30no. dwellings.

Visibility southward, along Prospect View would be achievable with correct placement of the give-way markings further east onto Prospect View.

A bus stop is located approximately 100m north of the primary access on Main Street.

It is considered that a footway on the northern side of Prospect View, within the existing verge should be provided to connect with Main Street and improve connectivity with Distington Village centre and the aforementioned bus stop.



# Site Name and Local Plan Reference: Land south west of Rectory Place (HDI2)

**Site Location: Distington** 

### SITE DESCRIPTION:

This site is situated within an existing residential estate in Distington, west of the B5306. The site is bound along its western and northern edge by Barf's Road, and to the east by Rectory Place; unclassified residential access type roads. The land in question is currently recreational open space.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	6	20
Walk / Cycle	2	8
Bus	0	2
Rail	0	0

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	20	10
Walk / Cycle	4	3
Bus	1	1
Rail	0	0
Kall	U	U



View of the site from Kilnside.



Looking east along Barfs Road at junction with Kilnside Place.



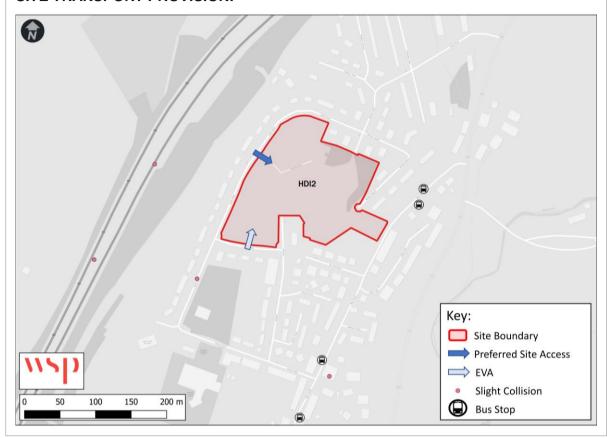
Looking west along Barfs Road at junction with Kilnside Place



View towards site from Rectory Place.



#### SITE TRANSPORT PROVISION:



# **WSP Comments:**

This site is located on open space within an existing residential estate. The CTIS identifies the introduction of traffic calming measures along with footway widening as schemes required to serve any residential development (for around 64no. homes) in this location.

The estate as a whole is served via Barf's Road at the north of Main Street, and Church Road, so the south; both via priority-controlled junctions.

Access using the existing Kilnside Place Junction from Barf's Road and a continuation of the existing cul-de-sac from it would act as a suitable primary access. Additional potential alternative access locations include the use of Rectory Place, and to a lesser extent, Glebe Road which has a narrower carriageway and is subject to more extensive on-street parking.

Footways across the existing development as a whole are of a sub-standard width and should be widened to 2.0m minimum where possible.

The addition of development traffic may necessitate the reconfiguration of existing junction arrangements such as the Rectory Place/ Barf's Road crossroads, and Kilnside/Barf's Road where give-way markings do not reflect existing kerblines. Footways could be widened in these locations to support junction amendments.

It would also be possible to serve dwellings directly with a frontage onto Barf's Road, which is consistent with many of the existing dwellings along Barf's Road.



Bus Stops are located to the north east of the site on Main Street which is most directly served by a footpath from Rectory Place. Footway widening on the section between the ramp/steps to the bus stops should be provided, if feasible (subject to carriageway widths) to improve conditions for pedestrians between the development and these bus facilities.

NCN72 is accessible to the west of the site and the layout of any proposals, including wayfinding and the provision of walking and cycling routes within the site layout, should support direct and coherent access to this route to maximise connections to, for example, the Lilyhall industrial area. This should include upgrading of the footpath (FP404010) to bridleway.



# Site Name and Local Plan Reference: Wray Head, Station Road (HDH2)

**Site Location: Drigg** 

 Size (ha): 0.87
 Dwellings: 22
 Collisions: SI: 0
 Se: 0
 F: 0

### SITE DESCRIPTION:

HDH2 is a small greenfield parcel situated at the junction of the B5344 and Station Road, the latter of which continues south towards Drigg train station and a level crossing.

NO. OF TRIPS (ARR)	AM PEAK (DEP)
22	2
1	3
0	1
0	0
	(ARR)

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	7	7
Walk / Cycle	1	1
Bus	1	0
Rail	0	0



Visibility to the right on Station Road along the eastern site boundary.



Visibility to the left on Station Road along the eastern site boundary.

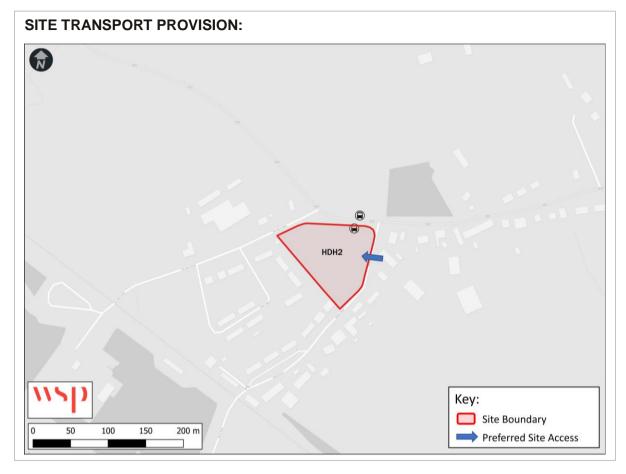


Visibility to the right on the B5344 from Old Shore Road, with the site extents on the right.



View of Old Shore Road from the B5344, with the site extents on the left.





This site is estimated to accommodate 22no. dwellings. Due to the proximity to the junctions with Station Road and Old Shore Road, an access from the B5344 would not be to CDDG standard and will result in potential safety implications. It is recommended that the access is located on Station Road, south of the existing field gate access and north of the speed bump. Removal of the speed bump, together with vegetation clearance, should be considered to improve the suitability of this access and achieve required visibility splays.

A pedestrian footway would need to be provided on Station Road along the site boundary. An uncontrolled crossing might be required to allow pedestrians to cross from the new footway to the existing footway on the eastern side of Station Road. This would provide a safe pedestrian connection to the Drigg train station, approximately 300 metres from the site. The nearest bus stops are at the B5344 junction with Station Road.

The delivery of the site may necessitate provision of safe crossing points on the B5344 to access this bus stop. The bus shelter could also be upgraded to serve this development.

The site benefits from connection to the NCN72 routing via the B5344, with further connections to Ravenglass to the south and Seascale and Whitehaven to the north. There is also an existing bridleway starting from the B5344 and Station Road junction and serving as a traffic-free route to the A595. Seascale and Sellafield.

An emergency access is not required for a site of this size.



Site Name and Local Plan Reference: Hill Farm, Holmrook (HDH3)

**Site Location: Holmrook** 

 Size (ha): 0.8
 Dwellings: 20
 Collisions: SI: 0
 Se: 2
 F: 0

### SITE DESCRIPTION:

HDH3 is a predominantly brownfield site to the south west of the junction of the A595 and B5344, rising from the River Irt towards the site.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	40	4
Walk / Cycle	1	5
Bus	0	1
Rail	0	0

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	12	12
Walk / Cycle	2	2
Bus	1	0
Rail	0	0



View of the B5344 from the junction with the A595.



View of existing private track, running along the north-eastern site boundary from the B5344.

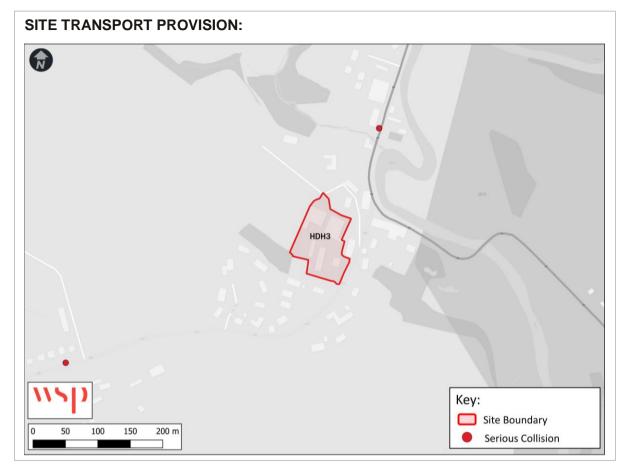


Visibility to the right on the B5344 along the eastern site boundary.



Visibility to the left on the B5344 along the eastern site boundary.





This is a potential residential development site that could accommodate up to 20no. dwellings. This would not require secondary or EVA access. The B5344 in this location, is at a notable gradient, rising away from the A595 to the north east. It is subject to a 30mph speed limit.

Whilst the crest of an adjacent bridge restricts visibility form the B5344/ A595 junction, there is no recent collision history that indicates an existing safety issue in this location.

Narrow footways (<1.0m) are intermittently present on both sides of the B5344. Existing infrastructure for pedestrians is therefore considered to be poor. It is understood there are no bus services currently in operation in south Copeland that could be accessed from the site.

Access would have to be taken from the B5344, using the section of site frontage south of the existing terraced cottages. Whilst forwards visibility is restricted, the gradient is likely to encourage higher vehicle speeds in this location. Adjacent 3rd party land and the gradient of this land, combined with the bend in the B5344, restrict the site's ability to deliver suitable visibility splays.

In any case, should the feasibility of access be delivered with visibility splays appropriate to the signed 30mph speed limit, any future planning application would be required to confirm actual vehicle speeds travelling eastbound to the A595

It is considered that it would be necessary to provide footways across the site frontage connecting to the existing footways on the B5344. Despite that, there are very limited local facilities and/or onwards transport connectivity that could be expected to present a realistic alternative to travel by the private car.



At this time, it is considered that further information is required to confirm the deliverability of acceptable access to this site.



# Site Name and Local Plan Reference: Land at Griffin Close (HFR1)

Site Location: Frizington

**Size (ha):** 1.24 **Dwellings:** 32 **Collisions:** SI: 8 Se: 2 F: 0

## SITE DESCRIPTION:

This site, in the north west of Frizington, is located north of Mill Street; an unclassified single two lane carriageway road of rural character leading to Whitehaven. It is situated south of agricultural areas of land and in close proximity to existing residential areas of Frizington to the south and east.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	3	10
Walk / Cycle	1	4
Bus	0	1
Rail	0	0

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	10	5
Walk / Cycle	2	2
Bus	1	0
Rail	0	0
Raii	Ü	U





Looking right on Mill Street along the site boundary.

Looking left on Mill Street along the site boundary.



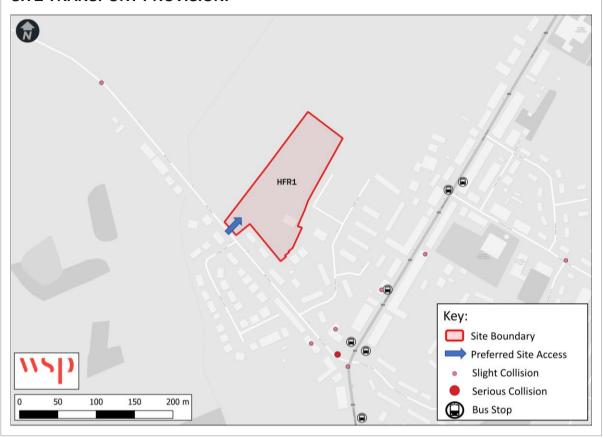
View at the site from Mill Street.



View from Greenvale Court leading to the site boundary.



#### SITE TRANSPORT PROVISION:



# **WSP Comments:**

This site, for an estimated 33no. dwellings offers two potential access locations; from Mill Street and Greenvale Court.

The required separation from the Lingley Fields/ Mill Street junction could not be achieved to CDDG standards from Mill Street, at around 20m. However, given the width of what is understood to be the highway verge it appears visibility splays commensurate with the 30mph speed limit could be achieved.

Access from Greenvale Court would require 3rd party land acquisition as it is not adopted highway and an existing turning head appears to be in private ownership, having previously been sheltered housing, since demolished. Griffin Close was observed to be subject to extensive on-street parking which often restricts it to one-way operation which would require mitigation, perhaps in the form of TROs, to ensure its continued safe and effective operation.

A pedestrian access to Greenville Court/ Griffin Close would be beneficial to provide a more direct and less traffic intensive route to, for example Greenvale Court surgery and amenities along Frizington Main Street.

The nearest bus stop is situated outside the Griffin Inn, at the junction of Mill Street and Main Street, approximately 200m east of the site. A footway should be provided along the site frontage with Mill Street to connect to existing eastbound nearside footways towards Frizington.



# Site Name and Local Plan Reference: Land adjacent Abbots Court (HSB1)

**Site Location: St Bees** 

 Size (ha): 2.33
 Dwellings: 58
 Collisions: SI: 0
 Se: 0
 F: 0

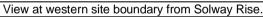
### SITE DESCRIPTION:

This site is located within St Bees between the Seacote caravan park and residential areas along its southern edge. It lies adjacent to Solway Rise, and Beach Road and Monks Hill, on its western, southern, and eastern boundaries respectively. Other relevant local land uses include the St. Bees nursery, accessed from Monks Road.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	6	18
Walk / Cycle	2	7
Bus	0	2
Rail	0	0

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	18	9
Walk / Cycle	4	3
Bus	1	1
Rail	0	0







View of path, extending from Solway Rise.

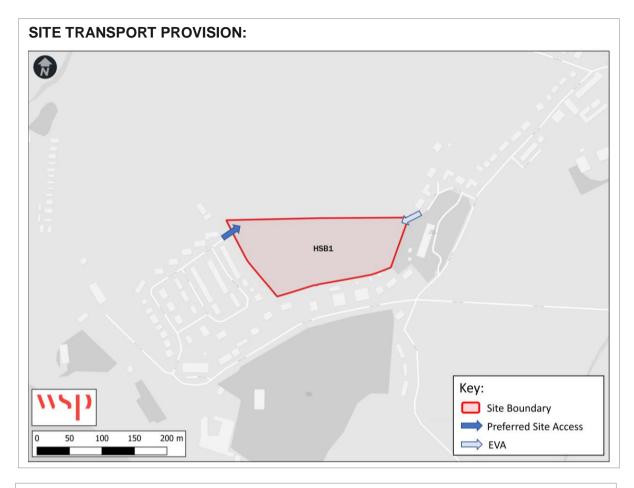


View at Solway Rise from western site boundary.



View at Monks Hill from the north-east edge of the





Primary access for this site would be achieved via an existing stub on Solway Rise, part of a residential estate north of the beachfront car parking areas. This estate is in turn, accessed via Beach Road. There appears to be no constraint that would prohibit the delivery of a standard of road commensurate with CDDG requirements.

An emergency access would be required for a development of this size (>50 dwellings). A potential access via a track extending to an existing field gate from Monks Hill may be suitable although it is unclear based on the site boundaries and extents of highways adoption whether further land acquisition may be required to deliver this.

It is noted that the existing estate served from Beach Road is comprised of 50 or more dwellings. Based on the CDDG, a secondary access would be required where more than 100 dwellings are located. The requirement for a secondary access could constrain the number of developments delivered at this site on this basis.

Extensive on-street parking was observed during the site visit and it is recommended that any future detailed assessment consider the impact of this parking in the context of additional traffic from the development. However, given the most quantum of trips that this scale of dwellings would generate it is anticipated that this would not represent an overriding barrier to the site coming forward.

There are opportunities for pedestrian connections to Beach Road and Abbots Way via existing pedestrian connections and a public footpath (Ref. 423016) which should be supported by the development layout to provide more direct alternative routes to the vehicular access(es).



Off-site improvements to this footpath connection between Abbots Court and Beach Road were identified as part of the CTIS, along with provision of a pedestrian crossing on Beach Road to the footway on south side of the carriageway.



# Site Name and Local Plan Reference: Adjacent Fairladies (HSB3)

**Site Location: St Bees** 

 Size (ha): 0.77
 Dwellings: 30
 Collisions: SI: 7
 Se: 1
 F: 0

## SITE DESCRIPTION:

This land, south of Fairladies in St. Bees, is a greenfield site that borders the B5345 and abuts the aforementioned Fairladies residential cul-de-sac. Agricultural land lies immediately to the east.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	19	2
Walk / Cycle	1	2
Bus	0	1
Rail	0	0

NO. OF TRIPS (ARR)	PM PEAK (DEP)
6	6
1	1
0	0
0	0
	(ARR)



View at northern site boundary from Fairladies.



View at western site boundary from existing access on Egremont Road.

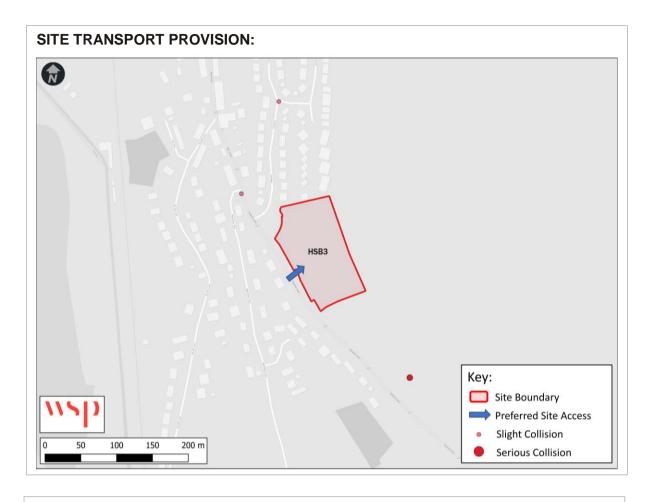


Looking right on Egremont Road from the western site extent.



Looking left on Egremont Road from the western site extent.





Access via Fairladies itself is not a realistic possibility to serve this site due to the existing retaining wall located at the end of this cul-de-sac. Access is therefore reliant on Egremont Road B5345 which is at a significant level difference to the site. This not only has an impact on the deliverability of an acceptable gradient for any site access but restricts forwards visibility in both directions, as well as visibility from any proposed site access.

The gradient of Egremont Road on approach to St. Bees is also likely to increase actual vehicle speeds above the 30mph limit, particularly for northbound traffic.

It is therefore considered that further feasibility work, based on actual vehicle speeds, would be required to demonstrate the possibility of delivering an acceptable access in for these sites.

CCC has provided comments to WSP and CBC that the site promoter has provided evidence to suggest that the site is accessible with mitigation and this evidence has been forwarded on to WSP & CBC. This material has been considered in the Phase 2 assessment for this site.

A continuation of the footways would be required to provide connectivity to St. Bees and the bus stops approximately 50m north of the site.



# Site Name and Local Plan Reference: Land to west of Santon Way (HSE1)

**Site Location: Seascale** 

 Size (ha): 2.31
 Dwellings: 45
 Collisions: SI: 3
 Se: 1
 F: 0

#### SITE DESCRIPTION:

HSE1, west of Santon Way, lies at the rear of the Co-op convenience store and fire service building in Seascale, served from Gosforth Road B5344. It is approximately 300m south east of Seascale train station.

NO. OF TRIPS (ARR)	AM PEAK (DEP)
4	14
1	5
0	1
0	0

NO. OF TRIPS (ARR)	PM PEAK (DEP)
14	7
3	2
1	0
0	0
	(ARR) 14



View of existing access track, alongside unclassified access road routing to the rear of Seascale Pharmacy.



View of Santon Way from Gosforth Road, with the site extents on the right.

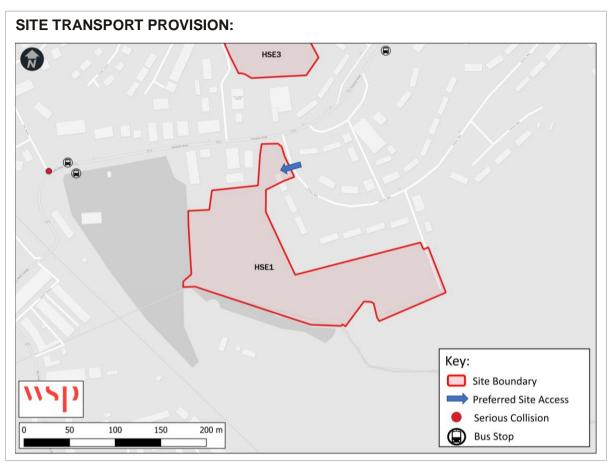


View to the west from Santon Way and Gosforth Road junction.



View of existing access track from Santon Way, leading to the north-eastern edge of the site extents.





This is a proposed site for up to 45no. dwellings in Seascale. This scale of development would not require EVA or secondary access.

The site is situated west of Santon Way, an unclassified road subject to a 30mph speed limit serving a residential estate. This in turn has a junction adjacent to the site with B5344 Gosforth Road which links this area to the beachfront at Seascale.

Access from Santon Way (U4095) is considered to be the preferred point of primary access. It is considered that a suitable separation distance could not be achieved from the existing fire station and pharmacy access or the B5344/ Santon Way junction. A primary access from Santon Way may be achieved at around 30m from this junction. Whilst this is within the SSD for the posted speed limit, and less than the specified junction spacing criteria in the CDDG, MfS2 acknowledges that spacing on this basis does not appear to be justified on safety grounds. It is therefore considered that siting an access in this location would be acceptable in highways terms.

It is noted that there is a pinch point within the site which may prevent the delivery of a secondary access road corridor with 4.8m/5.5m carriageway, 2.0m footways, and service margins. However, it is considered that a priority working arrangement or alternative road layout over this section would overcome this issue without affecting the adopted highway or safe operation of the site itself.

There are no bus services servicing the site, with the exception of the Village Wheels community transport initiative. The site is however located close to Seascale station. Whilst the southbound platform is accessible on footways, the railway bridge crossing is a barrier to accessing the northbound platform.



This site has been identified within the CTIS to contribute towards the delivery of a pedestrian crossing over the railway line to the west and traffic calming measures on Gosforth Road, to improve active travel infrastructure in Seascale.

There is a footpath on the eastern boundary of the site which should be reflected in the site layout to maximise permeability with the adjacent residential estate and amenities within Seascale to the east of the site.



# **Site Name and Local Plan Reference: Fairways Extension (HSE2)**

**Site Location: Seascale** 

#### SITE DESCRIPTION:

HSE2 entails an extension of Fairways in Seascale, west of Coniston Avenue and East of Links Crescent, both residential cul-de-sacs. This site formed part of a wider planning application, approved in 2015 (4/11/2568/0F1).

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	2	7
Walk / Cycle	1	3
Bus	1	5
Rail	N/A	N/A

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	7	3
Walk / Cycle	1	1
Bus	3	2
Rail	N/A	N/A



View of Links Crescent from the south-western edge of the site boundary.



View of the south-western corner of the site extents from Links Crescent.

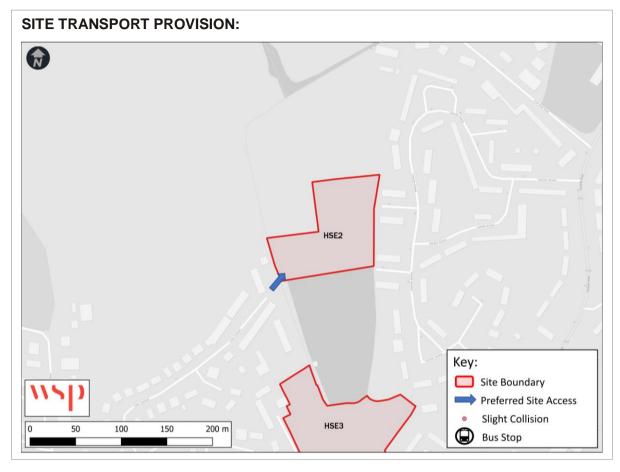


View of the eastern site boundary from Coniston Avenue spur, south of Eskdale Avenue.



View of the eastern site boundary from Coniston Avenue spur, north of Eskdale Avenue.





The Fairways Extensions for up to 22no. dwellings is located between Coniston Avenue and Fairways; both residential cul-de-sacs. A planning approval was granted 33no. dwellings (4/11/2568/0F1) in 2015, which included this parcel of land.

Access from the latter is constrained by the presence of 3rd party land between the end of the cul de sac and linked private driveways, and the development site. Shared surface roads are permitted to serve up to 20no. dwellings and access from either existing shared surface route would restrict the level of development to 20 units in these locations.

Due to the size of the existing estate Secondary Access is considered necessary. Secondary access may be possible from the Coniston Road cul-de-sac however the carriageway width serving these existing dwellings is approximately 3.0-3.5m for a length of around 35m, which is not accepted within the CDDG. However, there may be opportunity to widen this route, and or provide passing places with suitable visibility that could enable some level of development to be served from this location.



# Site Name and Local Plan Reference: Town End Farm East (HSE3)

**Site Location: Seascale** 

### SITE DESCRIPTION:

HSE3 is a site located north of St Joseph Catholic Church. The plot is currently accessed via a private track and public footpath between Gosforth Road and Links Crescent.

NO. OF TRIPS (ARR)	AM PEAK (DEP)
32	3
1	4
0	1
0	0
	(ARR)

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	10	10
Walk / Cycle	2	2
Bus	1	0
Rail	0	0



View of Links Crescent end at the northern side of the site extents.



View of north-western edge of the site boundary from public footpath 426003.

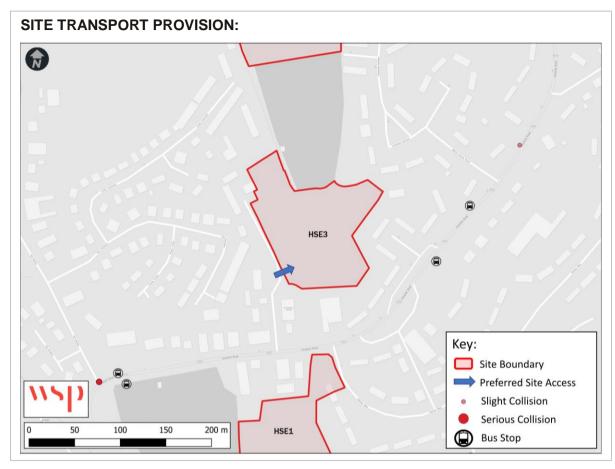


View of private track with the western site extents on the right.



View of private track with the western site extents on the left.





This site is situated to the north of St. Joseph's Church and would deliver 32no. dwellings.

The potential point of access is an existing private, unadopted access road to the west of the church which currently serves a small number of dwellings. This route is shared with a footpath (FP426003) which runs between Gosforth Road B5344 and Bridleway 426020 in the north.

This scale of dwellings would not require EVA access in itself however the scale of development would need to be mindful of the existing properties served in this location which may limit the scale of acceptable development; there does not appear to be opportunities to deliver EVA or secondary access in this location due to 3rd party land constraints. A maximum of 50no. dwellings from a single point of access would be acceptable.

The main risk to delivery of acceptable access in this location is ownership of the private road and ability to deliver an acceptable access road for this number of dwellings. A 4.8m carriageway would be required for this site, along with 2.0m footways and additional service strips. Based on site observations it appears that this could not be delivered taking into consideration the Church Land boundary and adjacent properties. Resurfacing, street lighting, and pedestrian facilities would be required for any development in this location.

Whilst alternative road layouts may be acceptable in line with Manual for Streets and Manual for Streets 2 principles, it is unclear at this time whether an acceptable



arrangement could be achieved taking into account 3rd party land boundaries. This may require the delivery of fewer dwellings on this site and further feasibility work at this stage.

There are no bus services servicing the site, with the exception of the Village Wheels community transport initiative. The site is however located close to Seascale station. Whilst the southbound platform is accessible on footways, the railway bridge crossing is a barrier to accessing the northbound platform. This site could be expected to contribute to traffic calming and the delivery of a pedestrian footbridge over the railway line, in line with the nearby sites in Seascale e.g. HSE1.



# Site Name and Local Plan Reference: Land to south of Thornhill (HTH1)

**Site Location: Thornhill** 

 Size (ha): 2.73
 Dwellings: 69
 Collisions: SI: 2
 Se: 0
 F: 0

## SITE DESCRIPTION:

HTH1, in Thornhill, lies south west of the settlement between the A595 and B5345 Cop Lane and the NCN72. It is an L-shaped greenfield parcel that abuts Wodow Road; an existing residential cul-de-sac.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	7	21
Walk / Cycle	2	8
Bus	0	2
Rail	0	0

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	21	10
Walk / Cycle	4	4
Bus	2	1
Rail	0	0

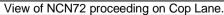


Visibility to the right from existing access track on Cop Lane.



Visibility to the left from existing access track on Cop Lane.

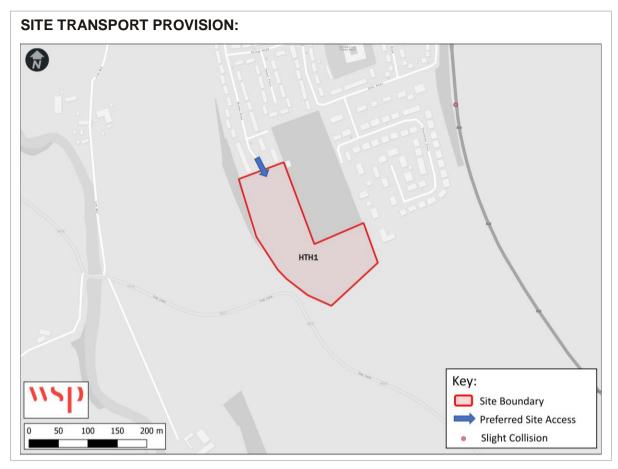






View of Wodow Road from northern site boundary.





This is a proposed development site for up to 69no. residential dwellings.

Access via Wodow Road, an existing residential cul-de-sac would appear to be the most suitable primary access. Extensive on-street parking was observed during the site visit. Due to the scale of the development, the CDDG requires a secondary/ EVA access.

3rd party land issues appear to prevent access to Cop Lane (B5345) which, in any case, is unlikely to provide an opportunity to deliver access to CDDG requirements. This road is subject to the national speed limit and where it may interact with the site is on a bend with very limited forwards visibility.

It is therefore considered that no secondary access could be achieved from the site. Unless further evidence can be provided as to how EVA access can be achieved this site would not be able to provide adequate access to CDDG standards for the indicative number of dwellings.

Furthermore, the potential increases in traffic flows arising from this number of dwellings, combined with the existing on-street parking could impede the safe operation of the existing estate roads.

In order to minimise the impact of this parking on the safe and effective flow of traffic through the existing estate, with additional development traffic it may be necessary for any future development to fund/ implement a scheme of localised TROs to ensure passing/ give-way opportunities exist on the route to the High Road/ A595. These would, however, be subject to a separate consultation process and their delivery could not be guaranteed.



Delivery of a smaller number of units, generating fewer vehicle trips, might be acceptable in highways terms provided that the developer/promoter can demonstrate that the number of additional trips on the existing estate roads would not have a significant detrimental impact on the safe operation of the highway; permitting sufficient opportunities for vehicles to pass safely and negotiate existing on-street parking. It is anticipated that a scheme in the region of 20no. dwellings would be of a suitable scale to avoid unacceptable impacts on the local highway network.

National Highways has confirmed no objection for this number of dwellings with regard to the impact on the A595.

The Ehen Road bus stop, for the 30 service is situated within the existing estate near playing fields approximately 400m from the northern boundary of the site. Should any development be brought forward, it should maximise connectivity to the adjacent NCN72 via a disused railway line at the south of the site.

Indeed, the CTIS identifies this connection, along with surfacing improvements, as active travel contributions associated with the delivery of housing in this location.

On top of this, the provision of footways to connect into the existing on Wodow Road would be required.



# Site Name and Local Plan Reference: Land north of Crofthouse Farm (HBE1)

**Site Location: Beckermet** 

 Size (ha): 1.97
 Dwellings: 46
 Collisions: SI: 1
 Se: 0
 F: 0

## SITE DESCRIPTION:

This is an agricultural greenfield parcel east of Sellafield Road in Beckermet. Sellafield Road serves a number of dwellings and agricultural buildings. To the north the plot lies adjacent to residential properties with a frontage onto Nursery Road.

NO. OF TRIPS (ARR)	AM PEAK (DEP)
4	14
1	5
0	2
0	0

NO. OF TRIPS (ARR)	PM PEAK (DEP)
14	7
3	2
1	1
0	0
	( <b>ARR</b> )



Visibility to the right on Sellafield Road along the western site boundary.



Visibility to the left on Sellafield Road along the western site boundary.

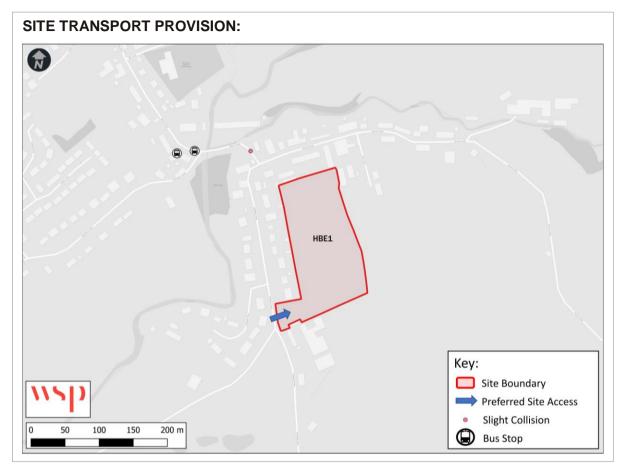


View of the western site boundary along Sellafield Road.



View of Sellafield Road to the south of the site extents, with the site on the left of the road.





This site for up to 46 no. dwellings would take primary access from Sellafield Road; a classified unnumbered road subject to a 30mph speed limit. Although the gateway is located to the south of the development parcel's frontage with Sellafield Road, the road reduces to a single track carriageway of rural character and it is anticipated that it is unlikely vehicles travelling northbound would be driving at or approaching the national speed limit. This would need to be confirmed by speed survey as part of any future Transport Assessment, but it is considered reasonable to base SSD requirements for visibility splays on a 30mph limit in either direction from the primary access.

In any case, the site frontage is limited, and it may be necessary to carry out further feasibility work to establish whether these splays could be delivered without interaction with land in 3rd party control.

The provision of footways would be required across the site frontage, along with a crossing point provided to allow crossings to the footway on the western side of the carriageway on Sellafield Road. This is consistent with the active travel scheme recommendations contained within the CTIS.



# Site Name and Local Plan Reference: Land adjacent to Mill Fields (HBE2)

Site Location: Beckermet

 Size (ha): 1.65
 Dwellings: 27
 Collisions: SI: 1
 Se: 1
 F: 0

## SITE DESCRIPTION:

HBE2 in Beckermet is located to the north of Mill Lane in the east of the settlement. It lies between Mill Fields and an existing farm approximately 500m west of the A595.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	3	8
Walk / Cycle	1	3
Bus	0	1
Rail	0	0

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	8	4
Walk / Cycle	2	1
Bus	1	0
Rail	0	0



Visibility to the right on Mill Lane along the southern site boundary.



Visibility to the left on Mill Lane along the southern site boundary.

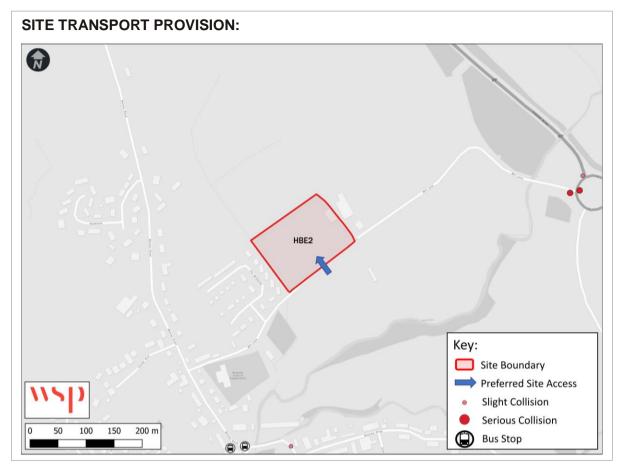


View of school zone and speed limit on Mill Lane to the south-west of the site extents.



View of existing field gate on the south-western corner of the site extents.





Access to this site, estimated to serve approximately 27no. dwellings, should be provided from Mill Lane, to the east of where the existing field gate to the site is situated. The east site boundary is bound by a private road, so locating the access centrally across the site frontage would limit the impact of the adjacent residential properties. This would provide maximum visibility, though vegetation on either side of the site might constrain the visibility. Vegetation clearance should be considered to improve the suitability of the access.

The location is currently subject to the national speed limit, so it is recommended that the speed limit gateway is extended to the east of the site extents to ensure reduced speeds on the approach of the access. This would also ensure speed reduction for the school zone, starting approximately 30 metres west of the site.

There is no existing footway on Mill Lane along the site boundary. It is recommended that new footway on the north side of Mill Lane is provided to connect to the existing footway, as per the CTIS infrastructure proposals. Due to carriageway width, footway provision will require vegetation removal.

The nearest bus stops are on Morass Road at the post office; however, due to lack of footway provision, the site is currently not safely accessible by public transport.

An emergency access is not required for a site of this size.



# Site Name and Local Plan Reference: Land north of Springfield Gardens (HBI1)

Site Location: Bigrigg

**Size (ha):** 2.60 **Dwellings:** 65 **Collisions:** SI: 14 Se: 3 F: 0

## SITE DESCRIPTION:

This greenfield site is one of three identified within Bigrigg, and is immediately south of HBI3 north of Bigrigg. It is bound immediately to the west by the A595.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	6	20
Walk / Cycle	2	8
Bus	0	2
Rail	0	0

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	20	10
Walk / Cycle	4	4
Bus	1	1
Rail	0	0



Looking right on the A595 from 9 St Johns Terrace.



Visibility to the left on the A595 from preferred site access along the site boundary.



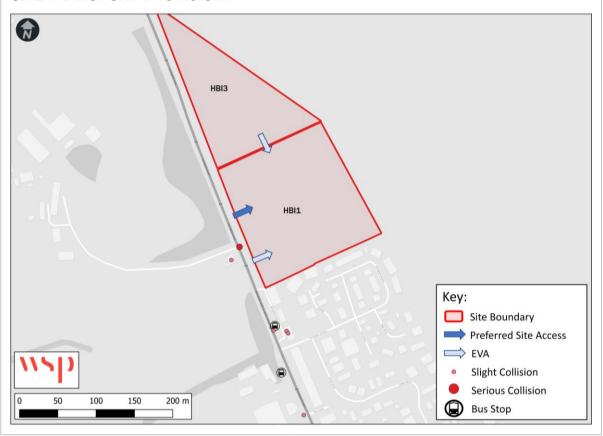
Visibility to the right on the A595 from preferred site access along the site boundary.



View of the northern side of the site from the A595.







This site, estimated to accommodate 65no. dwellings, could be accessed primarily from the A595. It is noted that this section of the A595 is identified in the CTIS as having a residential frontage, which would be increased by the proposals, and sections of narrow carriageway width.

Given the width of the existing verge, there is significant scope to provide a visibility splay to the required DMRB standards, noting that the site is bisected by a 40mph speed limit gateway for southbound traffic. North of this location is subject to the national speed limit. It is recommended that the speed limit gateway is relocated north of this site and if appropriate the adjacent site HBI3 to improve the pedestrian environment and minimise the need to tree and vegetation clearance on this section. In any case, locating the access centrally across the site frontage would limit the impact of the adjacent residential properties/ on-street parking on visibility.

In any case it is considered that the volume of traffic on the A595 is the key constraint for access in this location. During the site visit southbound queues were observed along the entire site frontage extending from what appeared to be the pedestrian crossing in Bigrigg. This may necessitate alternative access to simple priority arrangements. Further consideration of typical traffic flows on the A595, against proposed development traffic would be necessary to establish the likely operation of a junction in this location.



Footways on the site frontage are substandard and would require widening to serve the development and facilitate access to the bus stops located around 150m south of the site on the A595.

The nearest formal crossing location is approximately 300m south on the A595.

Emergency access could be taken from the adjacent site or via an alternative access onto the A595.



# Site Name and Local Plan Reference: Land west of Jubilee Gardens (HBI2)

**Site Location: Bigrigg** 

# SITE DESCRIPTION:

This greenfield site is located to the west of Jubilee Gardens; a residential cul-de-sac which itself is served from the A595 through Bigrigg.

NO. OF TRIPS (ARR)	AM PEAK (DEP)
2	6
1	2
0	1
0	0
	(ARR)

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	6	3
Walk / Cycle	1	1
Bus	0	0
Rail	0	0
Kall	U	U



View of the site boundary from Jubilee Gardens.



View of Jubilee Gardens from the site boundary.



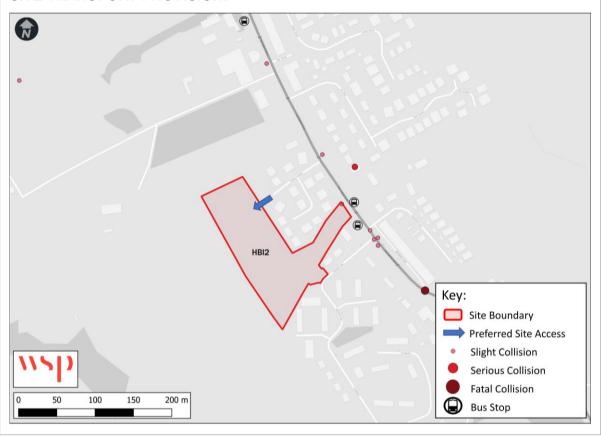
Looking right on Springfield Road from Jubilee Gardens.



Looking left on Springfield Road from Jubilee Gardens.







This site for around 35no. dwellings could be served from the stub of an existing cul-desac; Jubilee Gardens which serves around 15no. residential properties currently. This location appears well-suited for extension in this way via a continuation of the existing carriageway and footways, which are of a CDDG 'secondary road' standard having 4.8m carriageway and 2.0m footways. There is no requirement for secondary or emergency access as per the CDDG thresholds. It is noted that the site previously held outline planning permission for residential development, approved in 1997.

National Highways are not supportive of access the site directly from the A595.

It was however noted that crossing opportunities along the A595 in this area are limited south of Jubilee Gardens, and with the desire line towards nearby bus stops it may be prudent to request a contribution towards a future pedestrian crossing along this section of the A595.

The provision of a shared use path along the eastern side of the A595 was also identified as part of the CTIS, to improve connections to NCN72.



# Site Name and Local Plan Reference: Springfield Farm (HBI3)

**Site Location: Bigrigg** 

**Size (ha):** 1.55 **Dwellings:** 44 **Collisions:** SI: 13 Se: 2 F: 0

# SITE DESCRIPTION:

This triangular greenfield site is one of three identified within Bigrigg, and is immediately north of HBI1 north of Bigrigg. It is bound immediately to the west by the A595.

NO. OF TRIPS (ARR)	AM PEAK (DEP)
4	14
1	5
0	1
0	0

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	13	7
Walk / Cycle	3	2
Bus	1	0
Rail	0	0



Visibility to the right from preferred site access along the A595.



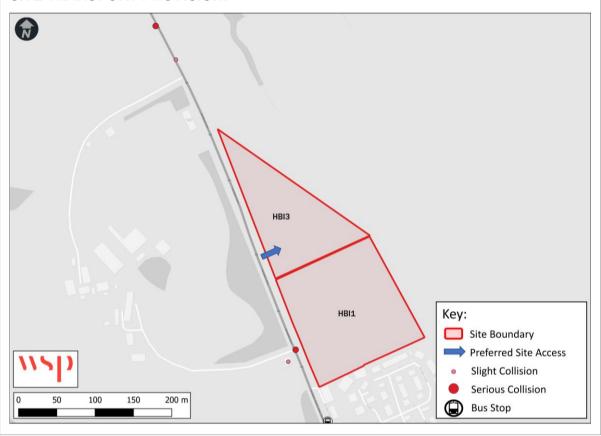
Visibility to the left from preferred site access along the A595.



Vegetation at the western site extent.







This site, estimated to accommodate 44no. dwellings, could be accessed primarily from the A595. It is noted that this section of the A595 is identified in the CTIS as having a residential frontage, which would be increased by the proposals, and sections of narrow carriageway width.

This location is subject to the national speed limit. It is recommended that the speed limit gateway is relocated north of this site to improve the pedestrian environment and minimise the need to tree and vegetation clearance on this section. There is also a layby situated at the northern end of the site, which when occupied could obscure visibility. Locating the site access close to the southern boundary of the site would assist in minimising the impact of this layby but would need to consider the proximity to any access delivered to serve HBI1. In any case, locating the access centrally across the site frontage would limit the impact of the adjacent residential properties/ on-street parking on visibility.

As with HBI1 it is considered that the volume of traffic on the A595 is the key constraint for access in this location. During the site visit southbound queues were observed along the entire site frontage extending from what appeared to be the pedestrian crossing in Bigrigg. This may necessitate alternative access to simple priority arrangements. Further consideration of typical traffic flows on the A595, against proposed development traffic would be necessary to establish the likely operation of a junction in this location.

Footways on the site frontage are sub-standard and would require widening to serve the



development and facilitate access to the bus stops located around 250m south of the site on the A595. The nearest formal crossing location is approximately 300m south on the A595.

Emergency access is not required for a site of this size however this site may serve as a potential alternative access to the adjacent site HBI1.



# Site Name and Local Plan Reference: Land to north of social club (HMR1)

**Site Location: Moor Row** 

### SITE DESCRIPTION:

HMR1 is situated to the north of the existing Moor Row Working Men's Club, via Scalegill Road; a classified unnumbered road adjoins the A595 approximately 500m to the west of the site.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	4	11
Walk / Cycle	1	4
Bus	0	1
Rail	0	0

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	11	6
Walk / Cycle	2	2
Bus	1	0
Rail	0	0



Visibility to the right on Scalegill Road from the Moor Row Working Mens Club access.



Visibility to the left on Scalegill Road from the Moor Row Working Mens Club access.



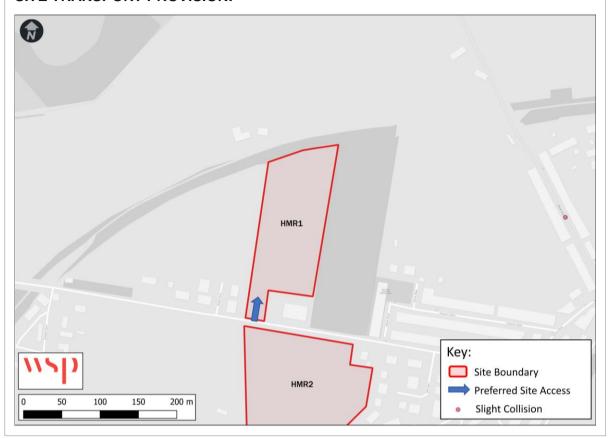
View from Scalegill Road towards the southern site boundary.



Public footpath starting from Scalegill Road and running along the western and northern site boundary.



#### SITE TRANSPORT PROVISION:



## **WSP Comments:**

This site to the rear of the Moor Row Working Men's Club could serve up to 37no. residential dwellings.

This site is currently the subject of a planning application (ref. 4/21/2360/001). At the time of writing, this planning application is yet to be determined. This planning application includes the parcel of green space located to the west of the working men's club car park.

No secondary or emergency access is required for a development of this scale and the preferred point of access is directly onto Scalegill Road. As part of the planning application, evidence has been provided to demonstrate that MfS complaint visibility splays could be achieved in this location.

Any planning application should include a connection into the NCN72 to the north of the site. This could be delivered by upgrading the adjacent public footpath to bridleway and accommodating widening within the western edge of the development site.

Bus stops are located to the west, on the A595, which is served by a footway on one side of Scalegill Road. Much of this section of Scalegill Road does not benefit from street lighting and is subject to the national speed limit. The long unrestrained length of straight road with good forwards visibility from the A595 is to likely encourage non-compliance with the signed 30mph speed limit. The introduction of traffic calming measures along this section may be requested to reduce speeds and improve conditions for pedestrians and cyclists, particularly with the presence of a nearby school.

No specific interventions were identified as part of the CTIS however it is noted that concerns over the use of Scalegill Road and Dalzell Street during busy periods on



the A595 and safety concerns at the junction of Scalegill and the A595 were noted. It is considered that the modest volume of traffic generated by this proposal, when distributed from the site would not, in itself, necessitate safety improvements at this junction.

However, in order to promote the use of sustainable modes of transport (i.e. existing bus stops) the developers of this site, along with HMR2 may be required to deliver street lighting along Scalegill Road.



# Site Name and Local Plan Reference: Land to south of Scalegill Road (HMR2)

**Site Location: Moor Row** 

 Size (ha): 1.8
 Dwellings: 41
 Collisions: SI: 3
 Se: 1
 F: 0

### SITE DESCRIPTION:

HMR2 is located on a greenfield site opposite the Moor Row Working Mens Club, via Scalegill Road; a classified unnumbered road adjoins the A595 approximately 500m to the west of the site. Its western edge runs parallel to a private access track serving an agricultural use.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	4	13
Walk / Cycle	1	5
Bus	0	1
Rail	0	0

(ARR)	(DEP)
13	6
3	2
1	0
0	0



Visibility to the right on Scalegill Road from preferred site access along the northern site boundary.



Visibility to the left on Scalegill Road from preferred site access along the northern site boundary.

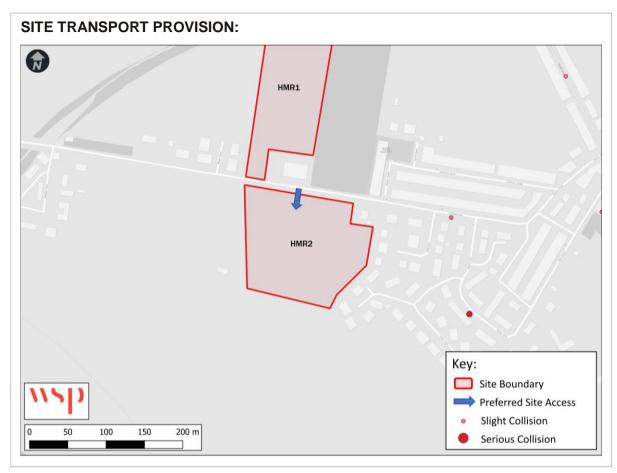


Private access track along the western edge of the



Public footpath connecting further to NCN72 across Scalegill Road from private access track.





This site, opposite the Moor Row Working Mens Club could serve up to 41no. residential dwellings.

No secondary or emergency access is required for a development of this scale and the preferred point of access is directly onto Scalegill Road. Manual for Streets compliant visibility splays appear to be achievable however consideration would have to be given for the siting of access to site HMR1 to ensure that a minimum separation distance requirement is maintained. Locating this a suitable distance east of the existing working men's club access would achieve this.

Bus stops are located to the west, on the A595, which is served by a footway on one side of Scalegill Road. Much of this section of Scalegill Road does not benefit from street lighting and is subject to the national speed limit. The long unrestrained length of straight road with good forwards visibility from the A595 is likely encourage non-compliance with the signed 30mph speed limit. The introduction of traffic calming measures along this section may be requested to reduce speeds and improve conditions for pedestrians and cyclists, particularly with the presence of a nearby school.

No specific interventions were identified as part of the CTIS however it is noted that concerns over the use of Scalegill Road and Dalzell Street during busy periods on the A595 and safety concerns at the junction of Scalegill and the A595 were noted. It is considered that the modest volume of traffic generated by this proposal alongside HMR1, when distributed from the site would not necessitate delivery of safety improvements at this junction, although it may be appropriate for HMR1 and HMR2 to contribute proportionately to the delivery of these improvements.



However, in order to promote the use of sustainable modes of transport (i.e. existing bus stops) the developers of this site, along with HMR1 may be required to deliver street lighting along Scalegill Road.



# Site Name and Local Plan Reference: Solway Road (HLO1)

Site Location: Lowca

**Size (ha):** 0.90 **Dwellings:** 22 **Collisions:** SI: 6 Se: 3 F: 0

### SITE DESCRIPTION:

This site, in Lowca, is situated north of Solway Road and 'Blomfields Woodland Nurseries', forming an extension to existing residential areas to the north. Solway Road is not part of the adopted highway and the site is bound along all but its eastern edge by public rights of way.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	2	7
Walk / Cycle	1	3
Bus	0	1
Rail	0	0

7	3
1	1
1	0
0	0
	1 0



Looking west on Solway Road from the south-west edge of the site.



Looking east on Solway Road at the south-west edge of the site and at junction with Stamford Hill Avenue.



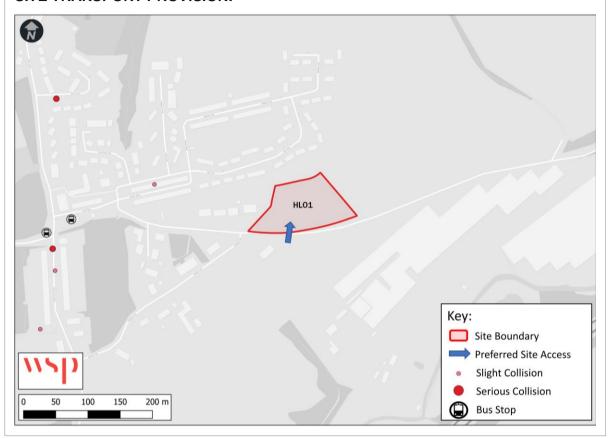
Looking east on Solway Road at the PROW.



Access road behind residential housing on Vale View.



#### SITE TRANSPORT PROVISION:



### **WSP Comments:**

Solway Road at the south of the site may be accessed from an existing field gate. A primary access located slightly to the west of this existing point of access would be most suitable, facilitating – with hedgerow removal – suitable visibility splays as well as appropriate separation from the Nursery access opposite.

Solway Road is not part of the adopted highway and was observed to be in a poor state of repair. Housing developments of this scale would typically be subject to adoption via s38 agreement.

The site is well served by the NCN72 which runs along Solway Road in an east-west alignment. A footpath along its western boundary provides a connection to areas of housing and a rear garage site to the north.

Access via Vale View would not appear suitable due to the presence of adjacent 3rd party land restricting it to single width with poor forwards visibility. This route would, however, provide a suitable active travel link, which would provide a link between existing residential areas and the NCN72, not currently permitted via the existing footpath.

The nearest bus stops are situated approximately 300m from the site, near High Lowca's junction with East Road. No footways are present on either side of Solway Road and it would be necessary to provide footway connections along Solway Road to ensure that services within Lowca, including these bus facilities, are accessible on foot for any future residents.



# Site Name and Local Plan Reference: Round Close Farm (Mp010)

**Site Location: Moresby Parks** 

 Size (ha): 12.26
 Dwellings: 43
 Collisions: SI: 2
 Se: 1
 F: 0

### SITE DESCRIPTION:

This site is situated between Red Lonning and Moresby Park Road at its western and eastern extents respectively. To the north lies residential properties within the settlement of Moresby Park. Whitehaven Golf Club lies south of the site.

NO. OF TRIPS (ARR)	AM PEAK (DEP)
4	13
1	5
0	1
0	0

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	13	6
Walk / Cycle	3	2
Bus	1	0
Rail	0	0



Looking south on Red Lonning along the site boundary.



Looking north on Red Lonning along the site boundary.



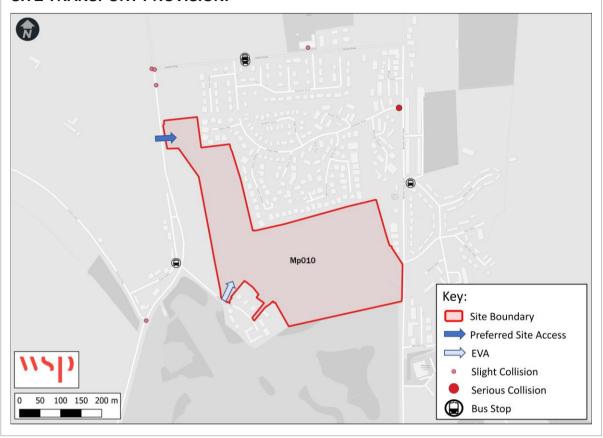
Visibility to the right on Round Close Park along the site boundary.



Footpath and visibility to the north on Moresby Road at the south-east edge of the site boundary.



#### SITE TRANSPORT PROVISION:



### **WSP Comments:**

It is understood that this site could accommodate around 43no. dwellings based on a lower than typical density, due to the provision of landscaping and open space. It is anticipated that primary access would be achievable from Red Lonning in the north west of the overall site. It will however be necessary to demonstrate this against actual traffic speeds for DMRB standard/ CDDG SSD, due to the proximity of 3rd party land north and south of this access. This feasibility work should also consider the gradient at any access in this location, due to the level difference from the site at this point. A maximum of 1:10 is permitted for a secondary road serving up to 100 dwellings.

A potential secondary/emergency access could be provided along Round Close Park. Again, due to adjacent 3rd party land it will be necessary to confirm actual speeds along this section to conform with visibility splay SSD requirements.

The CTIS recommends the delivery of a new bus service along Moresby Parks Road, along with a shared footway/cycleway path; interventions associated with the Whitehaven Commercial Park Site (MP022). In order to benefit from these the site should provide active travel connections to the east onto Moresby Parks Road.



# Site Name and Local Plan Reference: Summergrove (HSU1)

**Site Location: Westlakes Science Park** 

 Size (ha): 8.49
 Dwellings: 80
 Collisions: SI: 3
 Se: 0
 F: 0

## SITE DESCRIPTION:

This site, situated to the north east of the Westlakes Science and Technology Park, is a greenfield plot which borders Summergrove Park, a residential estate of approximately 50no. dwellings.

NO. OF TRIPS (ARR)	AM PEAK (DEP)
8	25
3	10
0	3
0	0
	(ARR) 8

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	24	12
Walk / Cycle	5	4
Bus	2	1
Rail	0	0



Visibility to the right on Dalzell Street along the eastern site boundary.



Visibility to the left on Dalzell Street along the eastern site boundary.



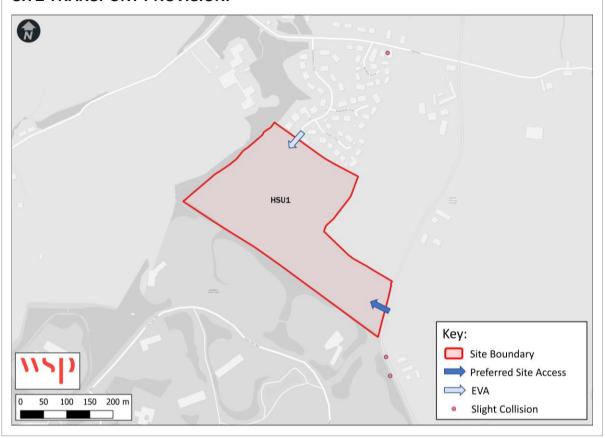
View at northern site boundary from Summergrove Park.



View at Summergrove Park from northern site boundary.



#### SITE TRANSPORT PROVISION:



### **WSP Comments:**

This site directly interacts with the adopted highway at Dalzell Street, in the south east corner of the site, and Summergrove Park, at its northern boundary. The former is a rural classified unnumbered road subject to the national speed limit. It provides no footways or street lighting. Summergrove Park is an unclassified road serving a residential estate. This is in turn accessed from Galemire, an unclassified road subject to the national speed limit. Footways are intermittently provided along Galemire, without street lighting.

WSP notes that a planning application for 194 dwellings was submitted in 2019 and withdrawn in December 2020.

Primary access could be provided via an existing road stub located at the terminus of Summergrove Park. Given the size of the existing estate and proposed development it would be necessary to provide a secondary access. This could be achieved from Dalzell Street.

For the primary access it would be necessary to reduce the speed limit to 30mph to ensure visibility splays are appropriate and to improve conditions for walking and cycling. For secondary access onto Dalzell Street it will be necessary to confirm actual speeds to ensure that acceptable visibility splays can be achieved. Use of Galemire, and Whinney Hill would appear to be the best route in terms of directness and traffic speeds/ flows to serve Cleator Moor and access local Bus Stops.



Notwithstanding the above comments it is considered that primary vehicular access from Dalzell Street would also be acceptable in highways terms in principle. The applicant would need to demonstrate that acceptable visibility splays could be achieved. Due to the rural nature of this section it may not be appropriate or effective to amend the speed limit. This option would also necessitate the delivery of pedestrian connections to connect with nearby bus stops.

The nearest bus stops are located some distance from the site, in Moor Row, and along the A595. Routes to these stops are not direct (e.g. through the existing Summergrove Park estate) and do not offer designated pedestrian facilities (i.e. footways, crossing locations) along the most direct existing routes. It is anticipated that these would constrain likely walking and cycling trips and increase dependency on the private car from this location.

Whilst bus services within Westlakes Science Park may be geographically closer, confirmation is required as to whether public access from Dalzell Street to the science park could be achieved to access these bus stops.

Traffic from the development may necessitate improvements/ contributions to schemes identified within the CTIS at the Moor Row/ A595 Junction, B5292 junction, and Main Street/ Moresby Road/ Cleator Moor Road Mini-Roundabout Junction. It is also noted that concerns have been raised about the volume of traffic using Scalegill Road, through Moor Row at peak times to avoid congestion of the A595. It may therefore be necessary for the developer of this site to contribute to measures to reduce rat running along this section to accommodate development traffic safely.

Whilst suitable access for vehicles is achievable in principle it is considered that improvements to pedestrian and cycle infrastructure would be required to ensure sustainable alternative modes are realistic alternatives to the private car. Development of this scale is likely to require improvements to the local highway network either through s278 or financial contributions identified in the CTIS. Changes to speed limits near both points of access may be necessary along with additional mitigation measures at more local junctions (i.e. those not identified in the CTIS) to cater for additional development traffic.



# 2.3 EMPLOYMENT SITE PRO FORMA(S)

Local Plan 2021-2038 Project No.: 70086983 | Our Ref No.: 70086983 - Copeland LPSAA Copeland Borough Council



# Site Name and Local Plan Reference: Furnace Row (ES8)

**Site Location: Distington** 

**Size (ha):** 2.25 **Dwellings:** N/A **Collisions:** SI: 10 Se: 1 F: 0

# SITE DESCRIPTION:

This potential employment site is located at the northernmost extent of Copeland Borough Council's administrative boundary, which bisects Furnace Row itself; an unclassified road which forms one of five arms of the A595/ A597/ B5306 roundabout, and abuts the northern edge of the site. It is situated to the south of an existing residential area and east of a car dealership. To the west, it is bound by a private access track serving an agricultural dwelling.

MODE	NO. OF TRIPS (ARR)	AM PEAK (DEP)
Total Vehicles	65	24
Walk / Cycle	3	2
Bus	2	0
Rail	0	0

NO. OF TRIPS (ARR)	PM PEAK (DEP)
16	64
3	6
0	2
0	0
	(ARR) 16 3

# **SITE PHOTOGRAPHS:**



Visibility to the left from the preferred site access, looking along Furnace Row.



Visibility to the right from the preferred site access, looking along Furnace Row.

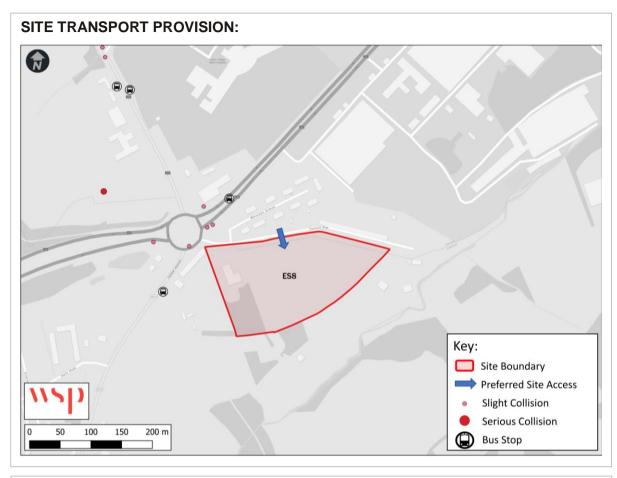


View along the northern site boundary from Furnace Row, looking towards the private access track.



View of unclassified road between site boundary and car dealership.





## **WSP Comments:**

This proposed employment site is situated south of Furnace Row, which is subject to a 30mph speed limit. There is an existing field gate on Furnace Row situated to the west of a row of residential dwellings on its eastern section which would allow, with the removal of hedgerows and other vegetation, the ability to deliver compliant visibility splays for a 30mph speed limit subject to the below comments. This would also ensure separation from both the private accesses located to the west and residential properties to the north east.

Winscales Avenue, becoming Furnace Row, forms one of five arms on the adjacent A595/A597/B5306 roundabout. It is approximately 6.0m wide to its junction with Winscales Avenue however from that point it becomes considerably narrower, to single width carriageway.

In order to serve an employment use, and to facilitate two-way HGV movements, it would be necessary to widen this section to a minimum 6.0m carriageway, utilising land within the site. No footways are present on this section of Furnace Row and this would be necessary in order to provide access. Tactile crossing points should be provided at crossings on both sides of Furnace Row including the two access points west of the site, and the Winscales Avenue Junction. The latter appears to be unnecessarily wide and reducing the junction radii and width would improve conditions for pedestrians.

The surrounding areas appear to be subject to a notable level of on-street parking as a consequence of the absence of off-street parking at local residential properties, and overspill nearby existing employment uses, including a car showroom/ dealership. Any future development would need to provide an appropriate level of parking to minimise the



potential for on-street overspill parking and/or introduce TROs to ensure that the safe operation of the surrounding highway is not compromised by inconsiderate parking, which is an issue common to industrial estates type uses.

The CTIS identified the provision of footways to the adjacent roundabout and upgrading of the existing A595 Puffin crossing to a TOUCAN as schemes required to support the development of this site. In addition to this, it is considered that any future Transport Assessment should consider the ability of pedestrians to cross (with consideration of likely demand, presence of vulnerable users, traffic speeds, and traffic flows, the B5306 safely in order to access bus stops located on this road approximately 200-400m south west of the proposed site.



# 2.4 OPPORTUNITY SITE PRO FORMA(S)

Local Plan 2021-2038 Project No.: 70086983 | Our Ref No.: 70086983 - Copeland LPSAA Copeland Borough Council



# Site Name and Local Plan Reference: Cleator Mills (OCL1)

**Site Location: Cleator** 

# SITE DESCRIPTION:

This site, located south of Trumpet Terrace, within Cleator comprises land currently partly used for agricultural grazing and disused industrial/employment development. There are also live industrial/ commercial activities located on the eastern side of the site. The entire site is served by an existing spine road and an additional rear access route via bridge over the River Ehen.

NO. OF TRIPS (ARR)	AM PEAK (DEP)
44	30
3	7
1	2
0	0
	(ARR) 44

MODE	NO. OF TRIPS (ARR)	PM PEAK (DEP)
Total Vehicles	24	46
Walk / Cycle	5	6
Bus	1	2
Rail	0	0

### SITE PHOTOGRAPHS:



Looking right on Trumpet Terrace from existing spine road.



View from Trumpet Terrace of existing spine road serving the site.



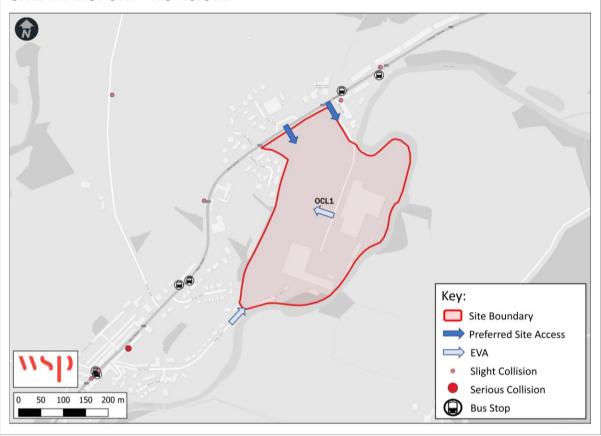
View of River Eden acting as a boundary to the site extents.



View of Mill Street connecting to the rear of the site.







## **WSP Comments:**

This opportunity site has been considered on the basis that it would cater for both residential and employment uses, at a 50/50 share of the site. There is currently a planning application in for residential development on part of this site (west of the existing access road) for 115no. dwellings (Ref. 4/21/2360/001). The east of the site was in use as a large car park (part of the Park & ride permitted under Ref. 4/18/2312/0F1) during the site visit, although it was not experiencing a high level of usage. WSP is aware of other permissions on the site relating to further residential development and office uses (Ref. 4/14/2480/001) have been granted in the past.

It is noted that unlike other sites within this study where an industrial estate type use has been forecast, office development has been assumed to take place in this location as part of the CTIS. This reflects permissions granted to date, as above, and our understanding of the site promoter's intention for employment uses. For that reason, an additional number of trips is shown to reflect an office scenario, which reflects the earlier work completed as part of the CTIS. On this basis, it could be expected to generate >500no. vehicular trips in each of the peak periods.

The A5086 at the northern frontage of the site is subject to a 30mph speed limit. Access to the site is currently provided via Cleator Mills, an unadopted industrial-character access road leading to Cleator Mills itself. The site also interacts with the adopted network via Mill Street/ Hilden Road/ Kiln Brow at the south-western corner; these roads eventually connecting to the A5086 to the west via priority junction with constrained visibility and small turning radii.



It is considered that separate access for any residential development, onto the A5086, would be suitable to minimise interaction between this and the employment element and reduce the capacity burden on the existing junction. The site frontage permits an adequate separation distance to do so. EVA could be taken onto Cleator Mills itself. It will be important to provide pedestrian and cycle permeability on the eastern edge of any development in this area to provide direct connectivity between adjacent employment opportunities and residential dwellings. Any development should provide footways and cycle infrastructure along the site frontage with the A5086. Actual vehicle speeds are not known; however, given the rural character of the A5086 to the west, and good forwards visibility towards Cleator, it is anticipated that speeds may exceed the posted limit. Surveys should confirm this and if necessary, provide traffic calming measures to improve compliance.

It is considered that access via Mill Street should be minimised to very low levels of vehicular traffic, potential emergency vehicle access (subject to swept path analysis at the Main Street junction), and walking and cycling trips. This is due to the narrow carriageway widths, absence of footways, poor forwards visibility, limited junction capacity and visibility safety concerns, and volume of on-street parking that currently takes place.

The CTIS identifies improvements to Footpath FP403013 as active travel measures required to bring this site forward. This would involve changing the designation of the footpath to a bridleway (to permit use by cyclists) and surfacing improvements.

Cleator Mills is not part of the adopted highway network. Existing footways on Cleator Mills are substandard and given that a mixed residential and employment use would bring pedestrians and cyclists into conflict with additional goods vehicle traffic and increased vehicle speeds on Cleator Mills it is considered necessary to maximise footways and cycling provision (segregated and off-road if necessary, conforming to LTN1/20 requirements) to ensure that safety is not compromised and that these modes remain safe and attractive options for residents of all ages and abilities.

In addition to those measures identified as part of the CTIS it is considered that the significant increases in traffic volumes, and connectivity via the footpath to Cleator Moor and associated facilities (nearby primary school, residential areas, and other shops and services) may necessitate the provision of crossing facilities suited to cyclists and pedestrians. This would also serve the existing bus stop north east of the site, approximately 50m from the existing junction. Local stops do not currently provide shelters, and development should seek to fund and deliver improvements to stops in these locations.

In terms of any employment element, it is considered that use, and upgrading of the existing Cleator Mills/ A5086 junction would be appropriate. However, the cumulative impact of potential and proposed/ permitted development is considered likely to necessitate capacity upgrade. This should consider aforementioned pedestrian and cycling crossing opportunities. Reconfiguration of the junction may provide opportunities to increase the separation distance from Brookside and improve visibility splays, which were observed to be impeded by parked vehicles to the east.



# 3 PHASE 2 ASSESSMENT

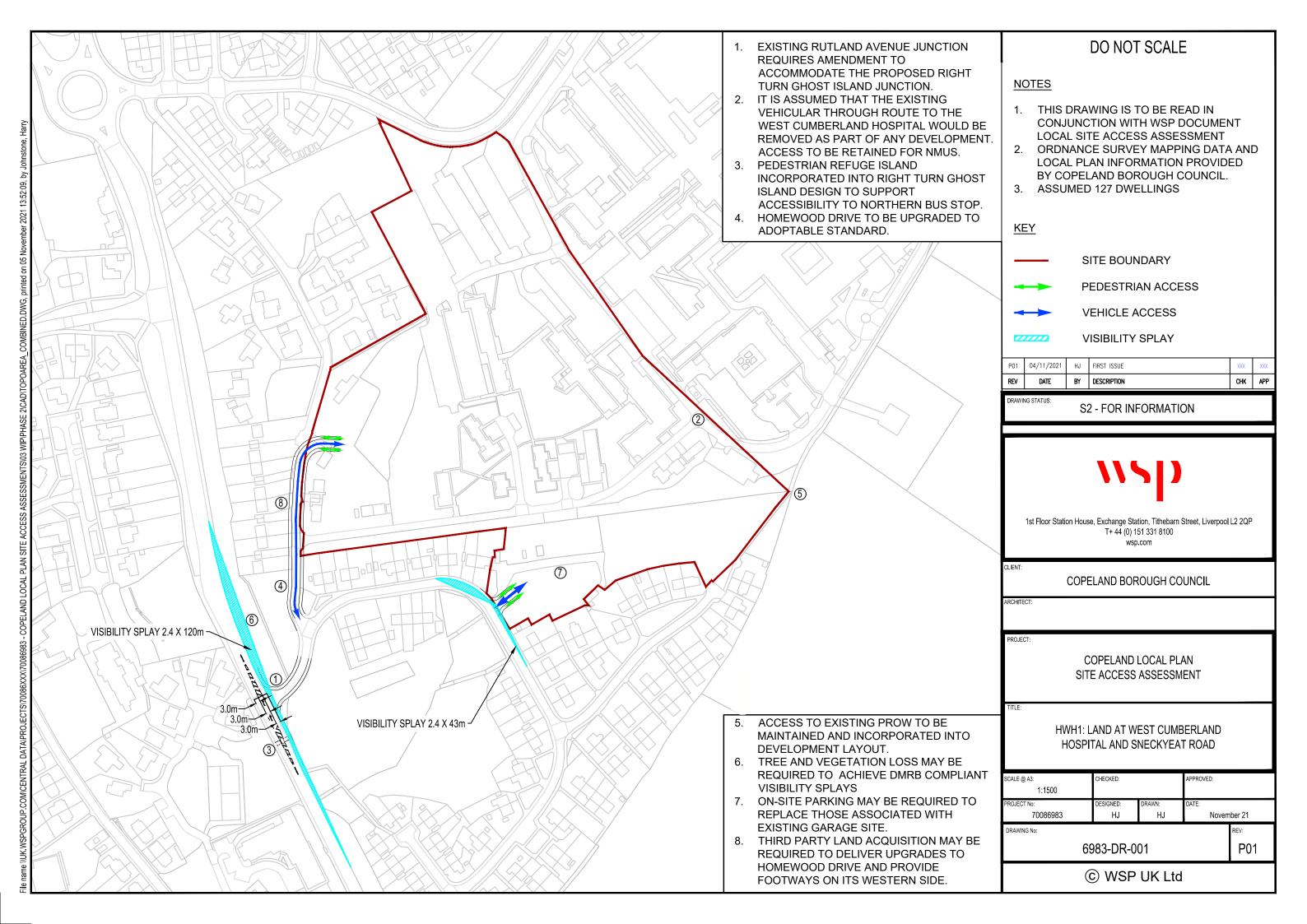
- 3.1.1. Six sites were identified in Phase 1 as requiring additional assessment of potential access arrangements to ensure that the sites were deliverable in terms of safety and accessibility. It entailed a more detailed consideration of how vehicular and pedestrian access could be safely achieved at each site, with development of outline design proposals. The sites are listed below.
  - HWH1: Land at West Cumberland Hospital and Snekyeat Rd, Whitehaven
  - HSB1: Land Adjacent Abbots Court, St. Bees
  - HSB3: Land Adjacent Fairladies, St.Bees
  - HSE3: Town End Farm East, Seascale
  - HDH3: Hill Farm, Holmrook
  - HBI1: Land North of Springfield Gardens, Bigrigg
- 3.1.2. Safe vehicular and pedestrian access to the development sites together with any adjacent affected sites have been considered in accordance with CCC's CDDG, MfS/MfS2 and DMRB, where applicable.
- 3.1.3. The design review has considered the junction visibility and stopping sight distance for vehicular drivers for each access and this is noted accordingly within each drawing, together with the implications of achieving the required visibility. Pedestrian crossing locations, access to bus stop facilities have also been considered and implications noted on each site drawing. For HSB3 the phase 2 assessment also comprises a review of feasibility information provided by the site promoter to CCC.
- 3.1.4. Consultation with National Highways, in the form of a focused meeting on 4<sup>th</sup> November 2021 has informed the access proposals presented in Phase 2.
- 3.1.5. Drawings of the outline design proposals have been produced to provide an indication of the proposed access arrangements. These are provided in **Appendix A**.

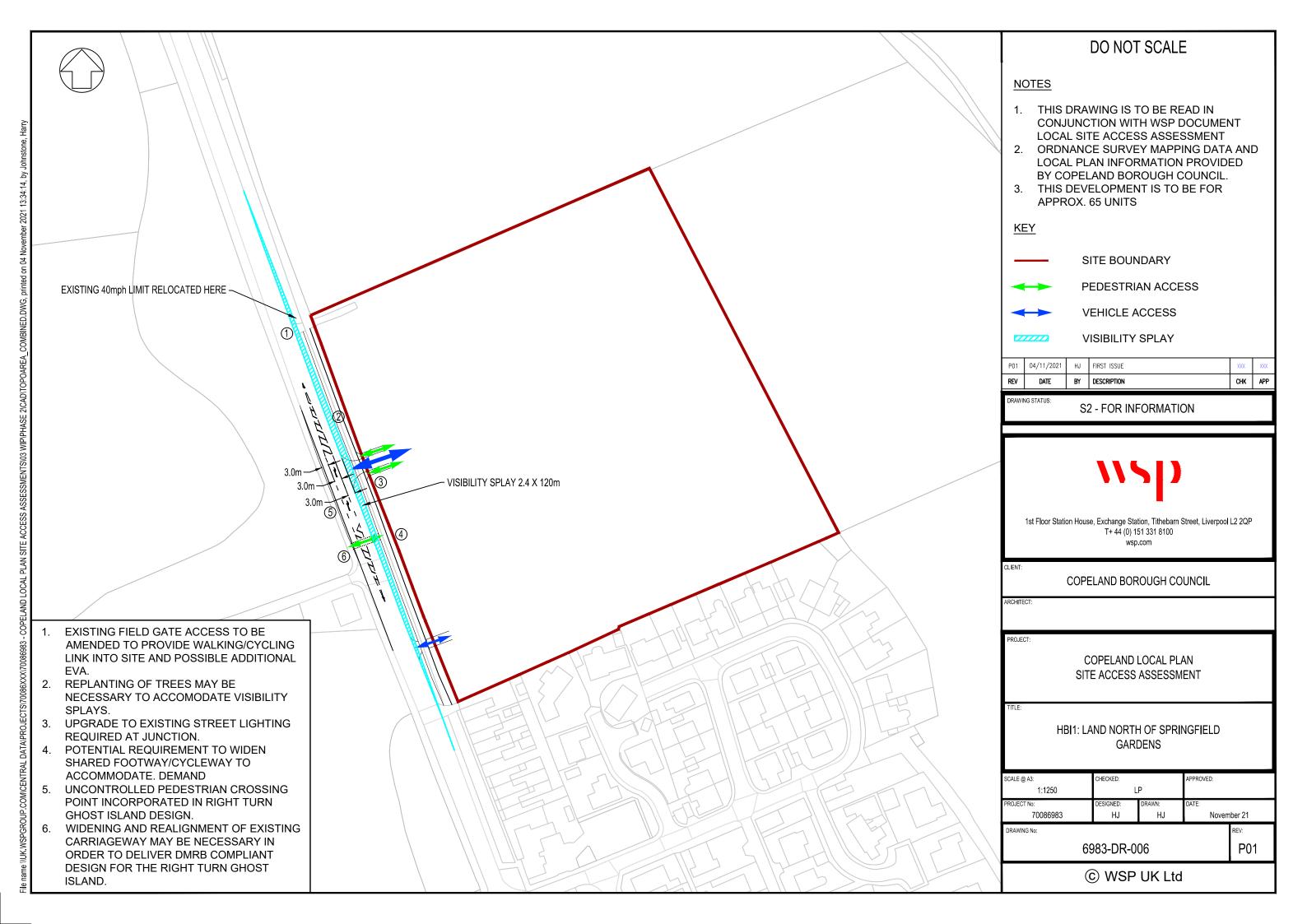
Local Plan 2021-2038 Project No.: 70086983 | Our Ref No.: 70086983 - Copeland LPSAA Copeland Borough Council

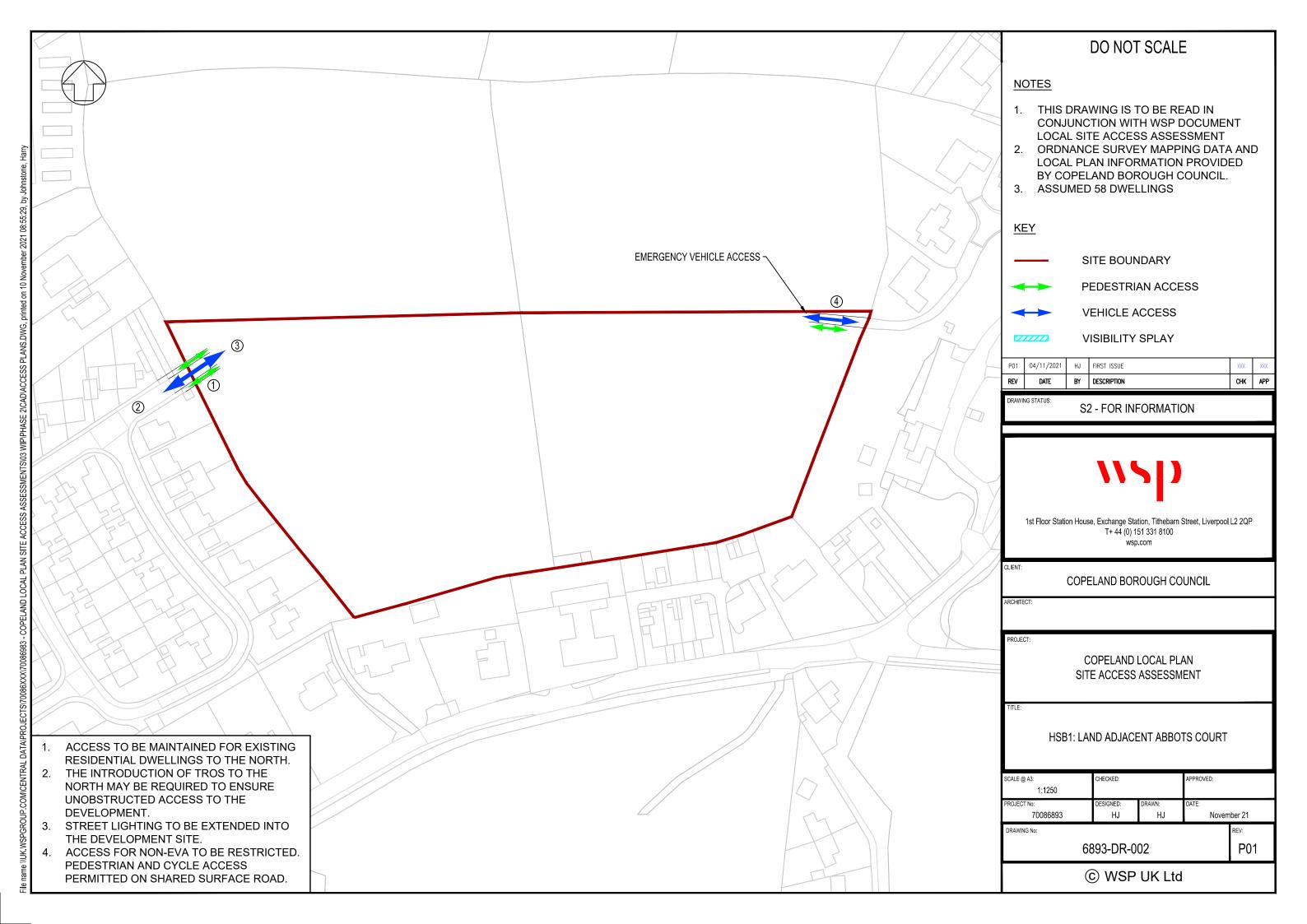
# Appendix A

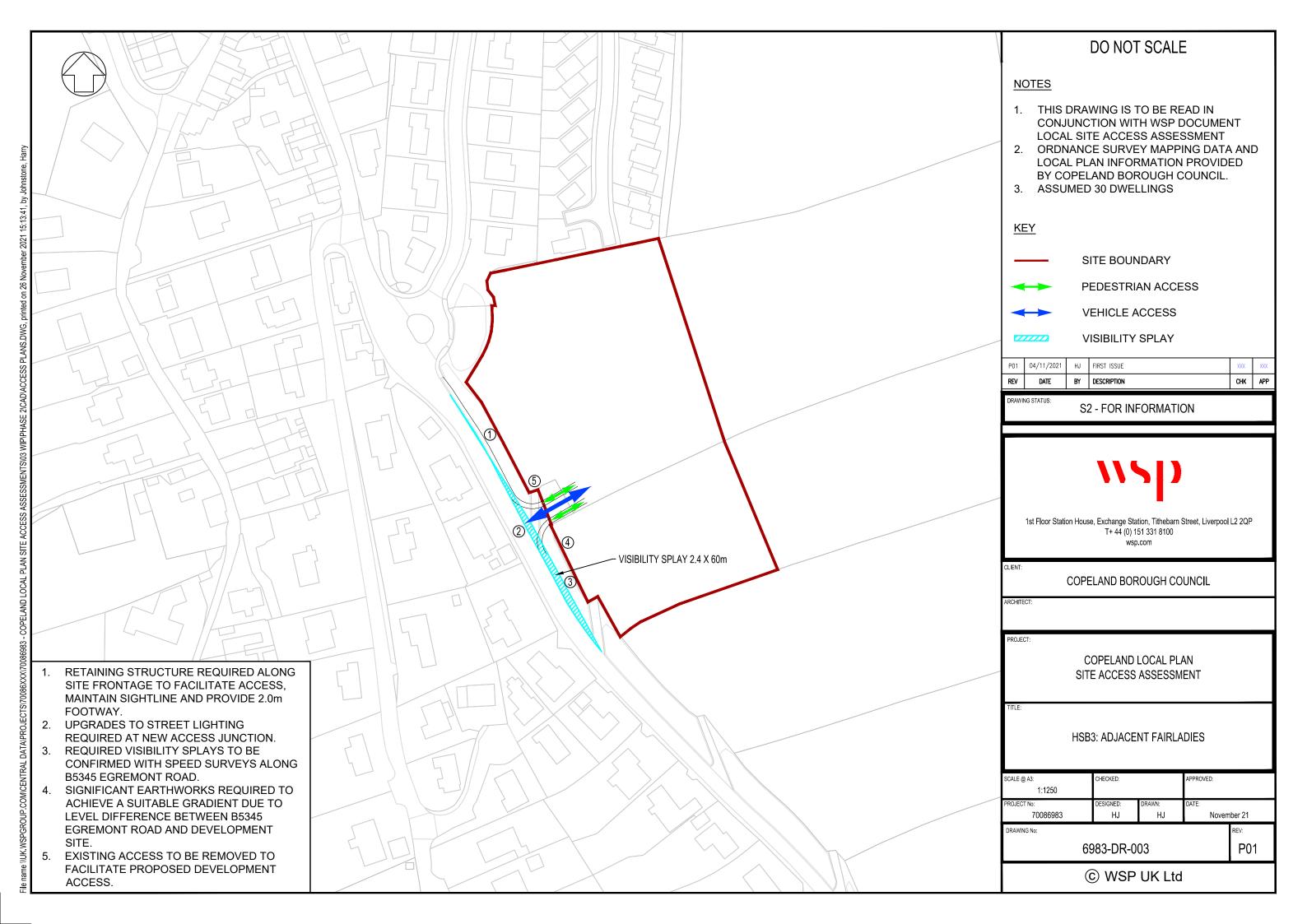
PHASE 2 OUTLINE ACCESS PROPOSALS

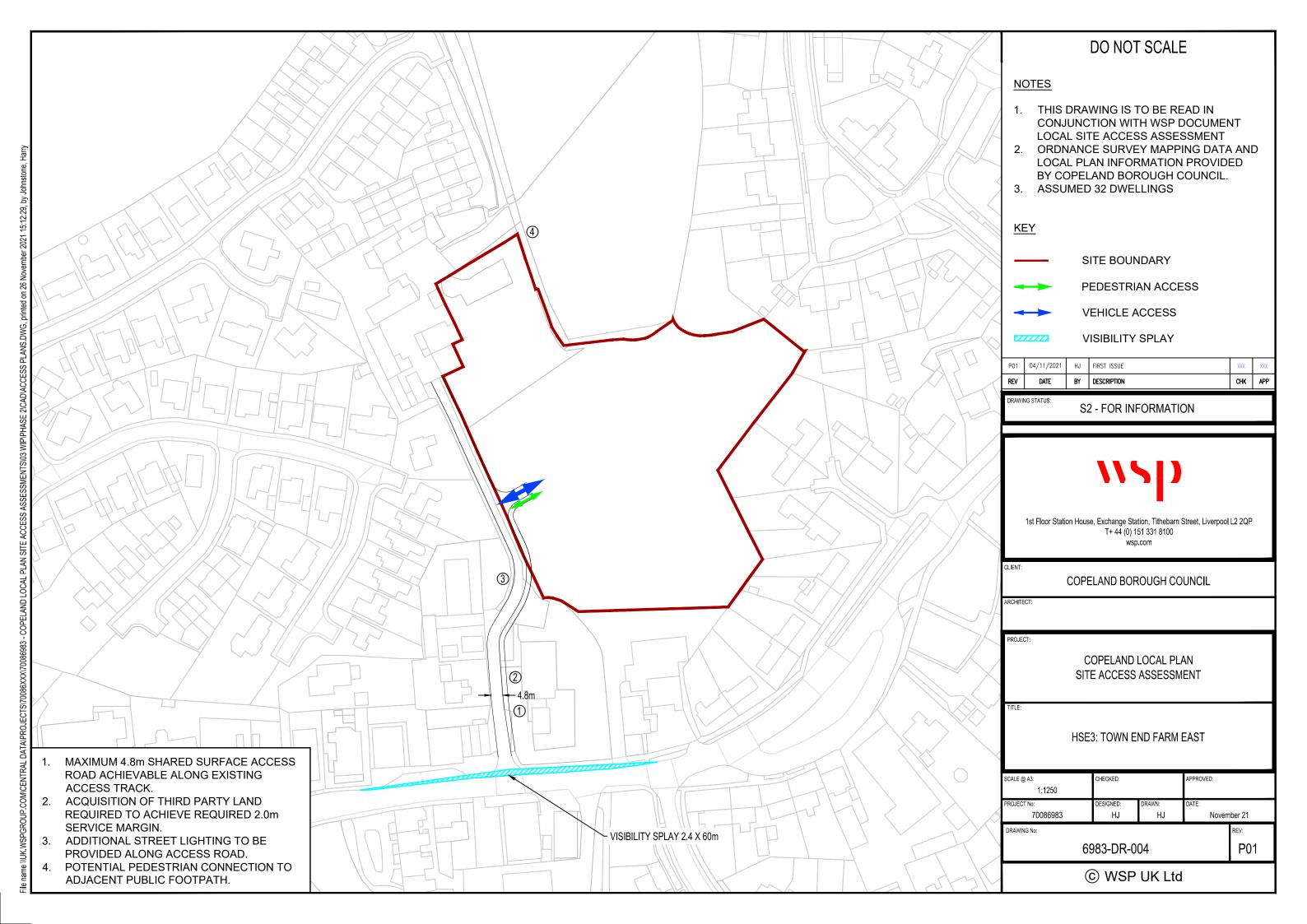


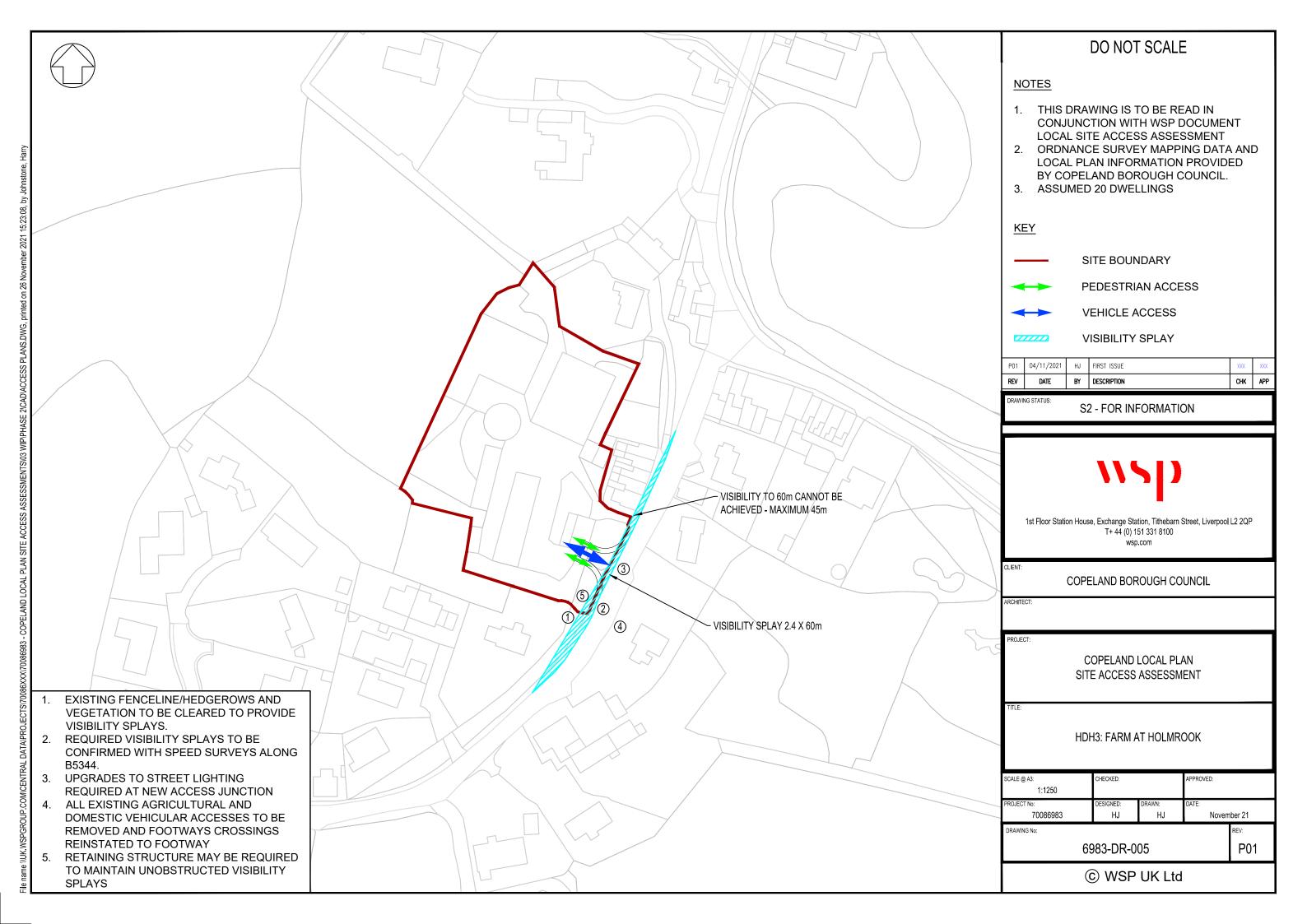












# Appendix B

**TRICS OUTPUTS** 



Wednesday 08/09/21 Page 1

Calculation Reference: AUDIT-100323-210908-0939

WSP Queen Street Manchester Licence No: 100323

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL

Category : M - MIXED PRIVATE/AFFORDABLE HOUSING

MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

SOUTH EAST EAST SUSSEX 7 days ES HAMPSHIRE HC 1 days **OXFORDSHIRE** OX 1 days WS WEST SUSSEX 3 days SOUTH WEST DC DORSET 1 days **DEVON** 1 days DV WL WILTSHIRE 1 days

04 EAST ANGLI A
CA CAMBRIDGESHIRE 1 days
NF NORFOLK 5 days

06 WEST MIDLANDS

WK WARWICKSHIRE 2 days

08 NORTH WEST

MS MERSEYSIDE 2 days

10 WALES

03

CM CARMARTHENSHIRE 1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

#### Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings Actual Range: 16 to 395 (units: ) Range Selected by User: 9 to 600 (units: )

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

#### Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 19/10/20

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

 Monday
 1 days

 Tuesday
 4 days

 Wednesday
 7 days

 Thursday
 7 days

 Friday
 7 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count 26 days
Directional ATC Count 0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre) 4
Edge of Town 18
Neighbourhood Centre (PPS6 Local Centre) 4

Page 2

WSP Queen Street Manchester Licence No: 100323

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

#### Selected Location Sub Categories:

Industrial Zone 1
Residential Zone 20
Village 4
Out of Town 1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

#### Use Class:

26 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

#### Population within 500m Range:

#### All Surveys Included

#### Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	10 days
5,001 to 10,000	7 days
10,001 to 15,000	7 days
15,001 to 20,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

#### Population within 5 miles:

5,001	to 25,000	5 days
25,001	to 50,000	10 days
50,001	to 75,000	11 days

This data displays the number of selected surveys within stated 5-mile radii of population.

#### Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	18 days
1.6 to 2.0	2 davs

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

#### Travel Plan:

Yes	18 days
No	8 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

#### PTAL Rating:

No PTAL Present 26 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 CA-03-M-01 MI XED HOUSES & FLATS CAMBRI DGESHI RE

BANNOLD ROAD WATERBEACH

Edge of Town Residential Zone

Total No of Dwellings: 52

Survey datē: WEDNESDAY 20/06/18 Survey Type: MANUAL
2 CM-03-M-02 HOUSES & FLATS CARMARTHENSHIRE

COLLEGE ROAD CARMARTHEN

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 49

Survey date: TUESDAY 14/10/14 Survey Type: MANUAL

3 DC-03-M-02 TERRACED & BUNGALOWS DORSET

KINGS ROAD DORCHESTER FORDINGTON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 37

Survey date: FRIDAY 16/09/16 Survey Type: MANUAL

4 DV-03-M-02 MI XED HOUSES & FLATS DEVON

SAINT PETER' SQUAY

**TOTNES** 

Edge of Town Residential Zone

Total No of Dwellings: 90

Survey date: FRIDAY 29/03/19 Survey Type: MANUAL

ES-03-M-05 HOUSES & FLATS EAST SUSSEX

A26 CROWBOROUGH RD

NEAR UCKFIELD

FIVE ASH DOWN VILLAGE

Neighbourhood Centre (PPS6 Local Centre)

Village

Total No of Dwellings: 138

Survey date: MONDAY 30/06/14 Survey Type: MANUAL

6 ES-03-M-09 DETACHED/SEMI-DETACHED EAST SUSSEX

STATION ROAD NORTHIAM

Neighbourhood Centre (PPS6 Local Centre)

Village

Total No of Dwellings: 16

Survey date: WEDNESDAY 17/05/17 Survey Type: MANUAL

7 ES-03-M-11 MI XED HOUSES & FLATS EAST SUSSEX

HEMPSTEAD LANE

HAILSHAM

UPPER HORSEBRIDGE

Edge of Town Residential Zone

Total No of Dwellings: 354

Survey date: WEDNESDAY 13/07/16 Survey Type: MANUAL

8 ES-03-M-12 MI XED HOUSES & FLATS EAST SUSSEX

PARK ROAD

HAILSHAM

Edge of Town

Residential Zone

Total No of Dwellings: 93

Survey date: THURSDAY 21/06/18 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9 ES-03-M-15 MIXED HOUSES EAST SUSSEX

FIELD END MARESFIELD

Edge of Town Residential Zone

Total No of Dwellings: 80

Survey date: WEDNESDAY 13/03/19 Survey Type: MANUAL

O ES-03-M-16 MI XED HOUSES & FLATS EAST SUSSEX BARNHORN ROAD

BEXHILL

LITTLE COMMON Edge of Town Residential Zone

Total No of Dwellings: 119

Survey date: WEDNESDAY 10/07/19 Survey Type: MANUAL

11 ES-03-M-17 MI XED HOUSES & FLATS EAST SUSSEX

NEW ROAD HAILSHAM AMBERSTONE Edge of Town Residential Zone

Total No of Dwellings: 91

Survey date: THURSDAY 07/11/19 Survey Type: MANUAL

12 HC-03-M-10 MIXED HOUSES & FLATS HAMPSHIRE

RAWLINGS LANE

ALTON

Edge of Town Residential Zone

Total No of Dwellings: 176

Survey date: TUESDAY 05/03/19 Survey Type: MANUAL

3 MS-03-M-02 TERRACED MERSEYSIDE

LOVEL ROAD LIVERPOOL SPEKE Edge of Town Residential Zone

Total No of Dwellings: 27

Survey date: FRIDAY 21/06/13 Survey Type: MANUAL

14 MS-03-M-03 SEMI DETACHED/TERRACED MERSEYSIDE

LOVEL ROAD LIVERPOOL SPEKE Edge of Town Residential Zone

Total No of Dwellings: 24

Survey date: FRIDAY 21/06/13 Survey Type: MANUAL

15 NF-03-M-01 MIXED HOUSES & FLATS NORFOLK

LONG LANE NEAR NORWICH MULBARTON

Neighbourhood Centre (PPS6 Local Centre)

Village

Total No of Dwellings: 173

Survey date: FRIDAY 20/09/19 Survey Type: MANUAL

16 NF-03-M-02 MI XED HOUSES NORFOLK

CAWSTON ROAD AYLSHAM

> Edge of Town Out of Town

Total No of Dwellings: 250

Survey date: TUESDAY 17/09/19 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

17 NF-03-M-04 MI XED HOUSES & FLATS NORFOLK

HUNSTANTON ROAD HUNSTANTON

Edge of Town Residential Zone

Total No of Dwellings: 70

Survey date: THURSDAY 19/09/19 Survey Type: MANUAL

18 NF-03-M-14 MI XED HOUSES & FLATS NORFOLK

NORWICH COMMON WYMONDHAM

Edge of Town Residential Zone

Total No of Dwellings: 321

Survey date: THURSDAY 19/09/19 Survey Type: MANUAL

19 NF-03-M-39 MI XED HOUSES NORFOLK

LONDON ROAD

ATTLEBOROUGH

Edge of Town Residential Zone

Total No of Dwellings: 61

Survey date: WEDNESDAY 14/10/20 Survey Type: MANUAL

20 OX-03-M-01 MIXED HOUSES OXFORDSHI RE

WENMAN ROAD

THAME

Edge of Town Industrial Zone

Total No of Dwellings: 100

Survey date: THURSDAY 28/06/18 Survey Type: MANUAL

21 WK-03-M-01 MI XED HOUSES & FLATS WARWIĆKŚHIRE

BIRMINGHAM ROAD

STRATFORD UPON AVON

Edge of Town Residential Zone

Total No of Dwellings: 395

Survey date: FRIDAY 29/06/18 Survey Type: MANUAL

22 WK-03-M-02 MI XED HOUSES WARWI CKSHI RE

BISHOPTON LANE STRATFORD UPON AVON BISHOPTON

Edge of Town Residential Zone

Total No of Dwellings: 130

Survey date: FRIDAY 29/06/18 Survey Type: MANUAL

23 WL-03-M-03 MI XED HOUSES & FLATS WILTSHIRE

WARNEFORD CRESCENT NEAR SALISBURY

LONGHEDGE

Neighbourhood Centre (PPS6 Local Centre)

Village

Total No of Dwellings: 260

Survey date: TUESDAY 09/10/18 Survey Type: MANUAL

Wednesday 08/09/21 Page 6

WSP Queen Street Manchester Licence No: 100323

LIST OF SITES relevant to selection parameters (Cont.)

24 WS-03-M-04 HOUSES & FLATS WEST SUSSEX

SUMMERSDALE ROAD

CHICHESTER

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 214

Survey date: THURSDAY 08/05/14 Survey Type: MANUAL

25 WS-03-M-16 MI XED FLATS & HOUSES WEST SUSSEX

BROYLE ROAD CHICHESTER

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 252

Survey date: WEDNESDAY 21/03/18 Survey Type: MANUAL

26 WS-03-M-21 MIXED HOUSES WEST SÚSSÉX

CLAPPERS LANE BRACKLESHAM BAY

Edge of Town Residential Zone

Total No of Dwellings: 57

Survey date: THURSDAY 14/11/19 Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

Licence No: 100323

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING

MULTI-MODAL TOTAL VEHICLES Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS			Į	DEPARTURES	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	26	140	0.071	26	140	0.286	26	140	0.357
08:00 - 09:00	26	140	0.095	26	140	0.310	26	140	0.405
09:00 - 10:00	26	140	0.106	26	140	0.166	26	140	0.272
10:00 - 11:00	26	140	0.113	26	140	0.128	26	140	0.241
11:00 - 12:00	26	140	0.127	26	140	0.132	26	140	0.259
12:00 - 13:00	26	140	0.148	26	140	0.133	26	140	0.281
13:00 - 14:00	26	140	0.138	26	140	0.145	26	140	0.283
14:00 - 15:00	26	140	0.139	26	140	0.154	26	140	0.293
15:00 - 16:00	26	140	0.227	26	140	0.151	26	140	0.378
16:00 - 17:00	26	140	0.241	26	140	0.149	26	140	0.390
17:00 - 18:00	26	140	0.306	26	140	0.151	26	140	0.457
18:00 - 19:00	26	140	0.289	26	140	0.138	26	140	0.427
19:00 - 20:00	1	119	0.126	1	119	0.008	1	119	0.134
20:00 - 21:00	1	119	0.101	1	119	0.017	1	119	0.118
21:00 - 22:00				`					
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.227			2.068			4.295

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.

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#### Parameter summary

Trip rate parameter range selected: 16 - 395 (units: )
Survey date date range: 01/01/13 - 19/10/20

Number of weekdays (Monday-Friday): 26
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 4
Surveys manually removed from selection: 0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Licence No: 100323

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING

MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			[	DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00										
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00										
05:00 - 06:00										
06:00 - 07:00										
07:00 - 08:00	26	140	0.004	26	140	0.011	26	140	0.015	
08:00 - 09:00	26	140	0.004	26	140	0.012	26	140	0.016	
09:00 - 10:00	26	140	0.003	26	140	0.004	26	140	0.007	
10:00 - 11:00	26	140	0.003	26	140	0.003	26	140	0.006	
11:00 - 12:00	26	140	0.003	26	140	0.006	26	140	0.009	
12:00 - 13:00	26	140	0.004	26	140	0.004	26	140	0.008	
13:00 - 14:00	26	140	0.004	26	140	0.004	26	140	0.008	
14:00 - 15:00	26	140	0.004	26	140	0.004	26	140	0.008	
15:00 - 16:00	26	140	0.010	26	140	0.005	26	140	0.015	
16:00 - 17:00	26	140	0.007	26	140	0.005	26	140	0.012	
17:00 - 18:00	26	140	0.015	26	140	0.010	26	140	0.025	
18:00 - 19:00	26	140	0.012	26	140	0.007	26	140	0.019	
19:00 - 20:00	1	119	0.000	1	119	0.000	1	119	0.000	
20:00 - 21:00	1	119	0.000	1	119	0.000	1	119	0.000	
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.073			0.075			0.148	

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING

MULTI-MODAL PEDESTRIANS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS		Į.	DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00										
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00										
05:00 - 06:00										
06:00 - 07:00										
07:00 - 08:00	26	140	0.020	26	140	0.040	26	140	0.060	
08:00 - 09:00	26	140	0.028	26	140	0.107	26	140	0.135	
09:00 - 10:00	26	140	0.035	26	140	0.031	26	140	0.066	
10:00 - 11:00	26	140	0.024	26	140	0.028	26	140	0.052	
11:00 - 12:00	26	140	0.026	26	140	0.029	26	140	0.055	
12:00 - 13:00	26	140	0.030	26	140	0.023	26	140	0.053	
13:00 - 14:00	26	140	0.032	26	140	0.034	26	140	0.066	
14:00 - 15:00	26	140	0.033	26	140	0.037	26	140	0.070	
15:00 - 16:00	26	140	0.102	26	140	0.047	26	140	0.149	
16:00 - 17:00	26	140	0.059	26	140	0.037	26	140	0.096	
17:00 - 18:00	26	140	0.047	26	140	0.044	26	140	0.091	
18:00 - 19:00	26	140	0.040	26	140	0.039	26	140	0.079	
19:00 - 20:00	1	119	0.008	1	119	0.008	1	119	0.016	
20:00 - 21:00	1	119	0.000	1	119	0.000	1	119	0.000	
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.484			0.504			0.988	

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING

MULTI-MODAL BUS/TRAM PASSENGERS Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			[	DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00										
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00										
05:00 - 06:00										
06:00 - 07:00										
07:00 - 08:00	26	140	0.004	26	140	0.024	26	140	0.028	
08:00 - 09:00	26	140	0.004	26	140	0.033	26	140	0.037	
09:00 - 10:00	26	140	0.008	26	140	0.012	26	140	0.020	
10:00 - 11:00	26	140	0.008	26	140	0.010	26	140	0.018	
11:00 - 12:00	26	140	0.009	26	140	0.011	26	140	0.020	
12:00 - 13:00	26	140	0.009	26	140	0.013	26	140	0.022	
13:00 - 14:00	26	140	0.011	26	140	0.012	26	140	0.023	
14:00 - 15:00	26	140	0.013	26	140	0.010	26	140	0.023	
15:00 - 16:00	26	140	0.026	26	140	0.013	26	140	0.039	
16:00 - 17:00	26	140	0.032	26	140	0.013	26	140	0.045	
17:00 - 18:00	26	140	0.023	26	140	0.011	26	140	0.034	
18:00 - 19:00	26	140	0.020	26	140	0.009	26	140	0.029	
19:00 - 20:00	1	119	0.000	1	119	0.000	1	119	0.000	
20:00 - 21:00	1	119	0.000	1	119	0.000	1	119	0.000	
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.167			0.171			0.338	

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING

MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

		ARRIVALS		[	DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	26	140	0.000	26	140	0.004	26	140	0.004
08:00 - 09:00	26	140	0.000	26	140	0.003	26	140	0.003
09:00 - 10:00	26	140	0.000	26	140	0.001	26	140	0.001
10:00 - 11:00	26	140	0.000	26	140	0.002	26	140	0.002
11:00 - 12:00	26	140	0.001	26	140	0.001	26	140	0.002
12:00 - 13:00	26	140	0.001	26	140	0.000	26	140	0.001
13:00 - 14:00	26	140	0.001	26	140	0.001	26	140	0.002
14:00 - 15:00	26	140	0.001	26	140	0.000	26	140	0.001
15:00 - 16:00	26	140	0.001	26	140	0.000	26	140	0.001
16:00 - 17:00	26	140	0.004	26	140	0.000	26	140	0.004
17:00 - 18:00	26	140	0.003	26	140	0.000	26	140	0.003
18:00 - 19:00	26	140	0.002	26	140	0.001	26	140	0.003
19:00 - 20:00	1	119	0.000	1	119	0.000	1	119	0.000
20:00 - 21:00	1	119	0.000	1	119	0.000	1	119	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.014			0.013			0.027

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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WSP Queen Street Manchester Licence No: 100323

# Filtering Summary

PTAL Rating

Filter by Site Operations Breakdown

Land Use	02/D	EMPLOYMENT/INDUSTRIAL ESTATE
Selected Trip Rate Calculation Parameter Rang	e 552-100000 sqm GFA	
Actual Trip Rate Calculation Parameter Range	2900-84575 sqm GFA	
Date Range	Minimum: 01/01/13	Maximum: 10/10/19
Parking Spaces Range	All Surveys Included	
Days of the week selected	Tuesday Thursday Friday	5 2 1
Main Location Types selected	Edge of Town Centre Suburban Area (PPS6 Out of Centre) Edge of Town	1 2 5
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	5,001 to 10,000 10,001 to 15,000 15,001 to 20,000	4 3 1
Population <5 Mile ranges selected	25,001 to 50,000 50,001 to 75,000 75,001 to 100,000	5 1 2
Car Ownership <5 Mile ranges selected	0.6 to 1.0 1.1 to 1.5	2 6

No PTAL Present

All Surveys Included

8

Calculation Reference: AUDIT-100323-210908-0908

#### TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : D - INDUSTRIAL ESTATE
MULTI-MODAL TOTAL VEHICLES

#### Selected regions and areas:

02	SOUT	TH EAST	
	EX	ESSEX	1 days
06	WEST	「 MI DLANDS	
	HE	HEREFORDSHIRE	1 days
	WK	WARWICKSHIRE	1 days
	WO	WORCESTERSHIRE	1 days
07	YORK	SHIRE & NORTH LINCOLNSHIRE	
	NY	NORTH YORKSHIRE	1 days
10	WALE	ES	
	CM	CARMARTHENSHIRE	1 days
11	SCOT	LAND	
	AG	ANGUS	1 days
	FA	FALKIRK	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

#### Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area

Actual Range: 2900 to 84575 (units: sqm) Range Selected by User: 552 to 100000 (units: sqm)

Parking Spaces Range: All Surveys Included

#### Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 10/10/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

#### Selected survey days:

Tuesday 5 days Thursday 2 days Friday 1 days

This data displays the number of selected surveys by day of the week.

#### Selected survey types:

Manual count 8 days
Directional ATC Count 0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

#### Selected Locations:

Edge of Town Centre	1
Suburban Area (PPS6 Out of Centre)	2
Edge of Town	5

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

#### Selected Location Sub Categories:

Industrial Zone	2
Residential Zone	1
Out of Town	2
No Sub Category	3

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

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WSP Queen Street Manchester

Secondary Filtering selection:

Use Class:

Not Known 8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

#### Filter by Site Operations Breakdown:

All Surveys Included

#### Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000 4 days 10,001 to 15,000 3 days 15,001 to 20,000 1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

#### Population within 5 miles:

25,001	to 50,000	5 days
50,001	to 75,000	1 days
75,001	to 100,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

#### Car ownership within 5 miles:

 0.6 to 1.0
 2 days

 1.1 to 1.5
 6 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

## Travel Plan:

No 8 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

#### PTAL Rating:

No PTAL Present 8 days

This data displays the number of selected surveys with PTAL Ratings.

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#### LIST OF SITES relevant to selection parameters

Site(1): AG-02-D-02 Site area: 30.07 hect Development Name: INDUSTRIAL ESTATE Gross floor area: 78500 sam Location: **ARBROATH** Parking spaces: 1270 No of Employees: Postcode: DD11 2NJ 875 Main Location Type: Edge of Town Survey Date: 25/04/17 Sub-Location Type: No Sub Category Survey Day: Tuesday PTAL: Site(2): CM-02-D-03 Site area: 1.80 hect Development Name: **WORKSHOPS** 2900 sqm Gross floor area: Location: **AMMANFORD** Parking spaces: 150 No of Employees: Postcode: **SA18 2ET** 59 Main Location Type: Edge of Town Centre Survey Date: 14/10/14 Sub-Location Type: No Sub Category Survey Day: Tuesday PTAL: n/a

EX-02-D-04 Site area: 7.85 hect Site(3): Development Name: INDUSTRIAL ESTATE Gross floor area: 37130 sqm WITHAM Parking spaces: Location: 455 Postcode: CM8 3SX No of Employees: 850 Main Location Type: 10/05/18 Edge of Town Survey Date: Survey Day: Thursday

Sub-Location Type: Industrial Zone PTAL:

Site(4): FA-02-D-02 3.48 hect Site area: **INDUSTRIAL ESTATE** Development Name: Gross floor area: 21250 sqm Location: FALKIRK Parking spaces: 190 Postcode: FK2 7PE No of Employees: 115

Suburban Area (PPS6 Out of Centre) 30/05/13 Main Location Type: Survey Date: Survey Day: Thursday

Sub-Location Type: Residential Zone

PTAL: n/a

Site(5): HE-02-D-02 Site area: 0.50 hect Development Name: **BUSINESS PARK** Gross floor area: 5214 sqm Location: **HEREFORD** Parking spaces: 68 No of Employees: Postcode: HR4 9JQ 67

22/10/13 Main Location Type: Suburban Area (PPS6 Out of Centre) Survey Date:

Survey Day: Sub-Location Type: Industrial Zone Tuesday

PTAL: n/a

NY-02-D-02 Site(6): Site area: 11.15 hect 35183 sqm Development Name: INDUSTRIAL ESTATE Gross floor area: Location: **RICHMOND** Parking spaces: 553 **DL10 4TG** No of Employees: 675 Postcode: Main Location Type: Edge of Town Survey Date: 12/03/19

Sub-Location Type: Out of Town Survey Day: Tuesday PTAL: n/a

4.86 hect Site(7): WK-02-D-04 Site area: Development Name: INDUSTRIAL ESTATE Gross floor area: 17500 sam

Location: ATHERSTONE Parking spaces: 349 Postcode: CV9 2QX No of Employees: 250 27/09/19 Main Location Type: Edge of Town Survey Date: Sub-Location Type: No Sub Category Survey Day: Friday PTAL: n/a

WO-02-D-03 27.00 hect Site(8): Site area: Development Name: INDUSTRIAL ESTATE Gross floor area: 84575 sqm

1744 Location: **EVESHAM** Parking spaces: Postcode: WR11 1GR No of Employees: 1499 26/06/18 Main Location Type: Edge of Town Survey Date: Sub-Location Type: Out of Town Survey Day: Tuesday

PTAL:

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WSP Queen Street Manchester

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL TOTAL VEHICLES Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[	DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	17500	0.029	1	17500	0.006	1	17500	0.035
06:00 - 07:00	1	17500	0.160	1	17500	0.046	1	17500	0.206
07:00 - 08:00	8	35282	0.409	8	35282	0.110	8	35282	0.519
08:00 - 09:00	8	35282	0.527	8	35282	0.197	8	35282	0.724
09:00 - 10:00	8	35282	0.349	8	35282	0.219	8	35282	0.568
10:00 - 11:00	8	35282	0.286	8	35282	0.223	8	35282	0.509
11:00 - 12:00	8	35282	0.283	8	35282	0.244	8	35282	0.527
12:00 - 13:00	8	35282	0.280	8	35282	0.341	8	35282	0.621
13:00 - 14:00	8	35282	0.314	8	35282	0.277	8	35282	0.591
14:00 - 15:00	8	35282	0.251	8	35282	0.311	8	35282	0.562
15:00 - 16:00	8	35282	0.221	8	35282	0.332	8	35282	0.553
16:00 - 17:00	8	35282	0.213	8	35282	0.435	8	35282	0.648
17:00 - 18:00	8	35282	0.130	8	35282	0.513	8	35282	0.643
18:00 - 19:00	8	35282	0.094	8	35282	0.174	8	35282	0.268
19:00 - 20:00	1	17500	0.029	1	17500	0.040	1	17500	0.069
20:00 - 21:00	1	17500	0.023	1	17500	0.017	1	17500	0.040
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.598			3.485			7.083

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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#### Parameter summary

Trip rate parameter range selected: 2900 - 84575 (units: sqm) Survey date date range: 01/01/13 - 10/10/19

Number of weekdays (Monday-Friday):

Number of Saturdays:

Number of Sundays:

Surveys automatically removed from selection:

0

Surveys manually removed from selection:

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

0

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WSP Queen Street Manchester

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL CYCLISTS Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	;		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00							_		
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	17500	0.000	1	17500	0.000	1	17500	0.000
06:00 - 07:00	1	17500	0.006	1	17500	0.000	1	17500	0.006
07:00 - 08:00	8	35282	0.009	8	35282	0.002	8	35282	0.011
08:00 - 09:00	8	35282	0.005	8	35282	0.001	8	35282	0.006
09:00 - 10:00	8	35282	0.002	8	35282	0.001	8	35282	0.003
10:00 - 11:00	8	35282	0.000	8	35282	0.000	8	35282	0.000
11:00 - 12:00	8	35282	0.000	8	35282	0.001	8	35282	0.001
12:00 - 13:00	8	35282	0.002	8	35282	0.001	8	35282	0.003
13:00 - 14:00	8	35282	0.004	8	35282	0.001	8	35282	0.005
14:00 - 15:00	8	35282	0.002	8	35282	0.004	8	35282	0.006
15:00 - 16:00	8	35282	0.002	8	35282	0.010	8	35282	0.012
16:00 - 17:00	8	35282	0.001	8	35282	0.004	8	35282	0.005
17:00 - 18:00	8	35282	0.005	8	35282	0.012	8	35282	0.017
18:00 - 19:00	8	35282	0.006	8	35282	0.001	8	35282	0.007
19:00 - 20:00	1	17500	0.000	1	17500	0.000	1	17500	0.000
20:00 - 21:00	1	17500	0.000	1	17500	0.000	1	17500	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.044			0.038			0.082

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

Licence No: 100323

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL PEDESTRIANS Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[	DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	17500	0.000	1	17500	0.006	1	17500	0.006
06:00 - 07:00	1	17500	0.000	1	17500	0.000	1	17500	0.000
07:00 - 08:00	8	35282	0.016	8	35282	0.010	8	35282	0.026
08:00 - 09:00	8	35282	0.019	8	35282	0.013	8	35282	0.032
09:00 - 10:00	8	35282	0.013	8	35282	0.007	8	35282	0.020
10:00 - 11:00	8	35282	0.010	8	35282	0.007	8	35282	0.017
11:00 - 12:00	8	35282	0.005	8	35282	0.008	8	35282	0.013
12:00 - 13:00	8	35282	0.028	8	35282	0.032	8	35282	0.060
13:00 - 14:00	8	35282	0.027	8	35282	0.029	8	35282	0.056
14:00 - 15:00	8	35282	0.019	8	35282	0.022	8	35282	0.041
15:00 - 16:00	8	35282	0.011	8	35282	0.011	8	35282	0.022
16:00 - 17:00	8	35282	0.012	8	35282	0.015	8	35282	0.027
17:00 - 18:00	8	35282	0.021	8	35282	0.033	8	35282	0.054
18:00 - 19:00	8	35282	0.009	8	35282	0.011	8	35282	0.020
19:00 - 20:00	1	17500	0.011	1	17500	0.086	1	17500	0.097
20:00 - 21:00	1	17500	0.006	1	17500	0.000	1	17500	0.006
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.207			0.290			0.497

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

Licence No: 100323

TRIP RATE for Land Use 02 -  $\ensuremath{\mathsf{EMPLOYMENT/D}}$  -  $\ensuremath{\mathsf{INDUSTRIAL}}$  ESTATE

MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	17500	0.000	1	17500	0.000	1	17500	0.000
06:00 - 07:00	1	17500	0.000	1	17500	0.000	1	17500	0.000
07:00 - 08:00	8	35282	0.027	8	35282	0.000	8	35282	0.027
08:00 - 09:00	8	35282	0.017	8	35282	0.000	8	35282	0.017
09:00 - 10:00	8	35282	0.003	8	35282	0.001	8	35282	0.004
10:00 - 11:00	8	35282	0.002	8	35282	0.000	8	35282	0.002
11:00 - 12:00	8	35282	0.002	8	35282	0.001	8	35282	0.003
12:00 - 13:00	8	35282	0.012	8	35282	0.017	8	35282	0.029
13:00 - 14:00	8	35282	0.018	8	35282	0.009	8	35282	0.027
14:00 - 15:00	8	35282	0.003	8	35282	0.010	8	35282	0.013
15:00 - 16:00	8	35282	0.002	8	35282	0.023	8	35282	0.025
16:00 - 17:00	8	35282	0.002	8	35282	0.004	8	35282	0.006
17:00 - 18:00	8	35282	0.001	8	35282	0.016	8	35282	0.017
18:00 - 19:00	8	35282	0.001	8	35282	0.005	8	35282	0.006
19:00 - 20:00	1	17500	0.000	1	17500	0.000	1	17500	0.000
20:00 - 21:00	1	17500	0.000	1	17500	0.000	1	17500	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.090			0.086			0.176

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

Licence No: 100323

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[	DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	17500	0.000	1	17500	0.000	1	17500	0.000
06:00 - 07:00	1	17500	0.000	1	17500	0.000	1	17500	0.000
07:00 - 08:00	8	35282	0.000	8	35282	0.000	8	35282	0.000
08:00 - 09:00	8	35282	0.002	8	35282	0.000	8	35282	0.002
09:00 - 10:00	8	35282	0.000	8	35282	0.000	8	35282	0.000
10:00 - 11:00	8	35282	0.000	8	35282	0.000	8	35282	0.000
11:00 - 12:00	8	35282	0.000	8	35282	0.000	8	35282	0.000
12:00 - 13:00	8	35282	0.000	8	35282	0.000	8	35282	0.000
13:00 - 14:00	8	35282	0.000	8	35282	0.000	8	35282	0.000
14:00 - 15:00	8	35282	0.000	8	35282	0.000	8	35282	0.000
15:00 - 16:00	8	35282	0.000	8	35282	0.000	8	35282	0.000
16:00 - 17:00	8	35282	0.000	8	35282	0.000	8	35282	0.000
17:00 - 18:00	8	35282	0.000	8	35282	0.001	8	35282	0.001
18:00 - 19:00	8	35282	0.000	8	35282	0.000	8	35282	0.000
19:00 - 20:00	1	17500	0.000	1	17500	0.000	1	17500	0.000
20:00 - 21:00	1	17500	0.000	1	17500	0.000	1	17500	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.002			0.001			0.003

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.



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