MOTT MACDONALD

Wirral Local Plan

Urban Sites: Accessibility & Utilities

February 2022

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Wirral Borough Council

Wirral Local Plan

Urban Sites: Accessibility & Utilities

February 2022

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
A	28 Feb 2022	JM	DC	PW	First issue
B	04 May 2022	JM	DC	PW	Second issue

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Information class: Standard

Contents

1 Introduction

This document provides a compilation of the work undertaken to initially review the potential access and utility implications of bringing forward major residential and employment sites associated with Wirral Borough Council's update to their 2037 Local Plan.

Within the initial review of each of the sites, recommendations are also made of improvements that may need to be made should the sites come forward for development. However, these recommendations will require further detailed assessment and discussion during the preparation of the planning applications for each of the sites.

2 Residential Sites

Within this section are the assessment proformas for the following large residential sites:

- RES-SA4.1 Land at Civic Way, Bebington
- RES-SA4.2 Former MoD, Old Hall Road, Bromborough
- RES-SA4.6 Former Croda, Prices Way, Bromborough Pool
- RES-SA4.7 Former D1 Oils, Dock Road South, Bromborough
- RES-SA4.11 Unilever Research and Development Site, Quarry Road East, Bebington
- RES-SA4.3 (Part A) Land at Riverside Park, Riverwood Road, Bromborough
- RES-SA4.3 (Part B) Land at Riverside Park, Riverwood Road, Bromborough
- RES-SA5.1 and SA5.7 Land at Knutsford Road, Moreton
- RES-SA5.3 East of Typhoo, Reeds Lane, Moreton
- RES-SA5.4 Former Foxfield School, Moreton
- RES-SA6.4 Land at Grange Hill Farm, Grange Old Road, West Kirby
- RES-RA2.1 Scotts Quay, Land East of Birkenhead Road (North)
- RES-RA2.2 Scotts Quay, Land East of Birkenhead Road (South)
- RES-RA3.4 Rose Brae, Church Street, Woodside
- RES-RA9.1 Former Municipal Buildings, Seaview Road, Liscard
- RES-RA11.5 100 New Chester Road, New Ferry

Site ref: RES-SA4.1 – Land at Civic Way, Bebington

SITE

Area	0.84 ha
Location	Land at Civic Way, Bebington, Wirral
Proposed land use	Residential – approximately 60 dwellings

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The site currently comprises an open-air car park, although noted to be in a poor condition, but is otherwise vacant grassed land. Formerly, the site was used for offices.
- Surrounding land use can be described as residential to the north and west while civic and commercial to the south and east, including the Bebington Civic Centre and Central library. A number of amenities are available along The Village/Church Road to the south (local shops, restaurants, pubs, church)
- It should be noted that the Local Plan identifies the site as a site of archaeological importance
- The site is bounded by Heath Road to the north, the B5136 The Village to the east, Civic Way to the south and an access road/existing car park to the west
- All surrounding roads run a 30mph single carriageway, with a small amount of on-street parking provided along the B5136 The Village, adjacent to the site access
- A 5-year Road Traffic Collision (RTC) analysis (2015-2019) shows two serious and two slight incidents on the immediate surrounding road network, however, none of these incidents are clustered around a specific location. It should be noted that three of the four incident involved vulnerable road users (2 pedestrians, 1 cyclist). However, upon consideration of traffic volumes along these links and the lack of any incident clusters, the analysis indicates there is no significant road safety issues in immediate proximity to the site
- Three comments are noted on the Wirral Liveable Streets website at the proposed site:
  - x2 comments concerning high vehicle speeds through B5136/Heath Road roundabout) (link) (link)
  - Unattractive public space at Civic Centre and Library to the south of the site (link)

Vehicular access

- The site is accessed via Civic Way which connects to the B5136 The Village local distributor via a T-junction approximately 100m to the east
- Visibility splays at the T-junction are good, while sufficient width and road markings are in place to facilitate two-way access. The junction is also protected by double yellow lines
- It is noted that double yellow lines are in force along the south side of this access, however, vehicles are observed to park along the north side
- It should be noted that site is also connected to The Highcroft to the west via Wirral Evolutions, where vehicles are currently permitted one way westbound. The Highcroft however is a very narrow cul-de-sac with residential properties to either side. It is noted that The Highcroft is unadopted with the official access to Wirral Evolutions being via Civic Way from the east

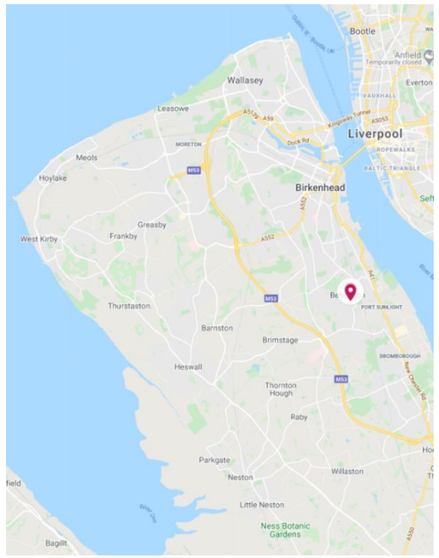
Walking / Cycling connectivity

- Land to the northeast of the site is existing greenspace, with a number of internal footways linking the northern, eastern and southern boundaries of the site. Some of these footways are made from natural stone slabs which become extremely slippy and unsafe when wet.
- A public right of way runs to the south of Heath Road along The Highcroft, providing a connection to Highcroft Avenue.
- Conditions of pavements is noted to be poor, particularly along Civic Way.
- Signalised pedestrian crossing adjacent to Mayer Hall with would facilitate direct access to the proposed development site and aligning well with the vehicular access point via Civic Way. The crossing also benefits from tactile paving.
- Dropped kerbs support the crossing of Civic Way at the B5136 junction, but do not provide tactile paving.
- While there is street lighting along Civic Way, provision along some of the other pedestrian access routes is noted as poor
- There are no significant barriers to movement.
- The site does not benefit from any immediate existing cycle lane infrastructure. The nearest off-road cycle route can be accessed by pavement approximately 600 meters to the south-east, providing cycling access into the Wirral Business Park and the Wirral Circular Trail. This would also connect to the A41 LCWIP corridor if the scheme comes forward.

Public Transport connectivity

- Bus stops available adjacent to Civic Way on the B5136 The Village, accessible directly via pavement and a signalised crossing point. The bus stops benefit from shelters and seating provision and are served by the following routes:

Location

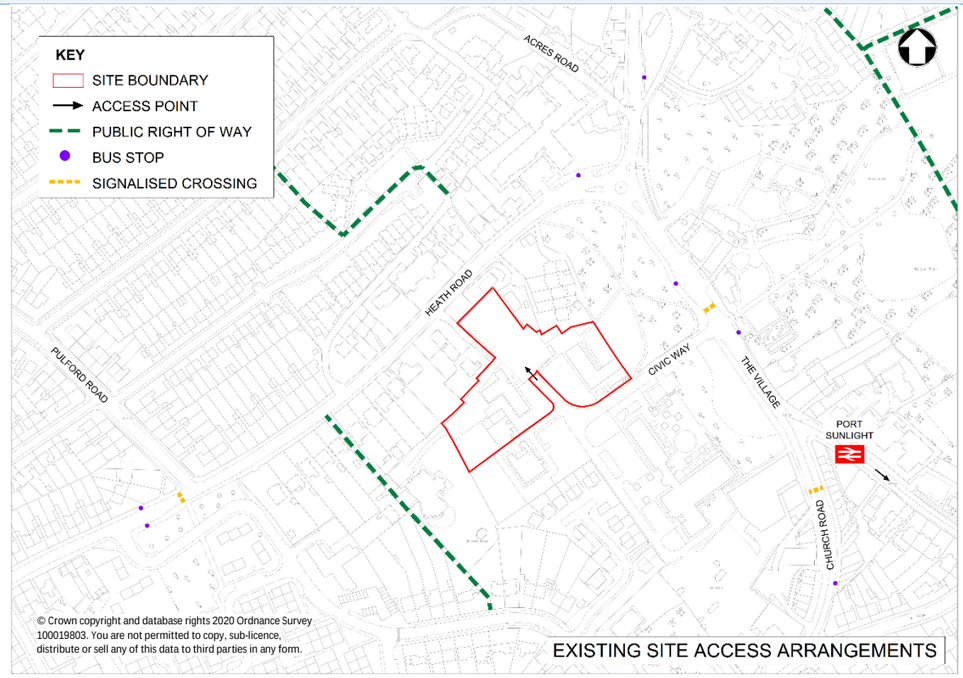


Source: Google Maps

5-Year Accident Analysis

Source: CrashMap

Site Plan



Source: Mott MacDonald

PROPOSED SCENARIO

- 73 → Heswall – Poulton Lancelyn Circular
- 410 → New Brighton – Clatterbridge Hospital
- 487 → Liverpool – Little Neston, Ness Gardens or Parkgate
- 605 → St John Plessington - Eastham
- 603, 612 & 704 → School/ College routes

- Port Sunlight Rail Station is located to the south-east, approximately a 10-minute walk from the site with pavement provision along the route. The station is served by both the Liverpool-Chester and Liverpool to Ellesmere Port Merseyrail lines, each running 4 trains per hour during peak times. The station does not provide any car parking but benefits from 60 secure cycle parking spaces. The station is not deemed wheelchair accessible. Bebington Station to the north is a similar walk distance.

RAG Status of Existing Transport Scenario		Commentary	No significant issues were noted at this site. Site appears well suited for residential uses

Proposed development and network impact

- The Council controlled site is subject to a joint venture partnership with the developer. The current trajectory for development would see 30 dwellings erected in 2022/23 and a further 30 in 2023/24, based on developer assessment, which has been verified by independent consultants.
- The class of housing to be erected has not yet been made publicly known
- However, applying the 60-dwelling density to trip rate factors generated within the TRICS database, indicates the likely AM and PM peak trip generation shown to the right
- This trip generation anticipated to be incurred by the development is not expected to have a material impact on the operation of the surrounding road network, although this analysis must be revisited upon compilation of a Transport Assessment.

Trip Generation Analysis

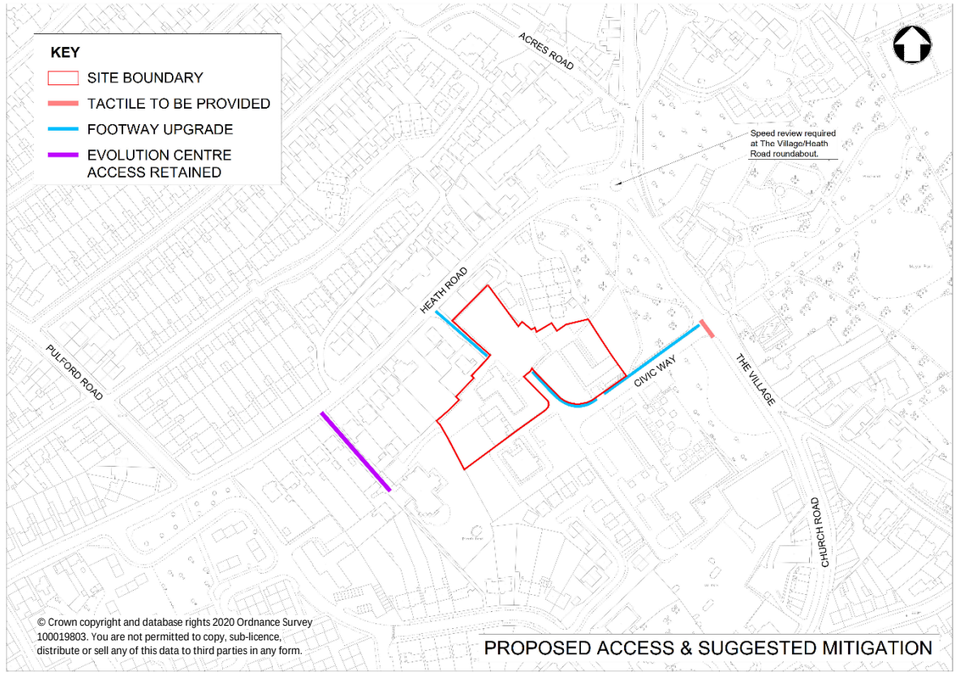
	Trip Rates* *(per dwelling)*			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.138	0.385	0.523	8	23	31
PM peak (17:00-18:00)	0.363	0.175	0.538	22	11	32

**Trip rates derived from TRICS surveys for land use: 'Residential – Private'*

Comments and assumptions

- Parking proposals have not yet been made available for this site.
- A need to provide mitigation in support of sustainable transport is not considered at this site due to strong public transport connectivity by both bus and train and sufficient pedestrian connectivity including signalised crossing across primary roads.
- Site access it assumed to be proposed solely from Civic Way, connecting the B5136 The Village to the east as described in the plan to the right. This is thought to be a suitable access, complying with minimum width and visibility requirements, as set out in the Manual for Streets.
- A vehicle and pedestrian route is available to the south along Civic Way to close to the Church Road / The Wiend junction. However, this should not be encouraged as it passes through a council car park and there are no footways.
- It is noted that properties on the northern edge of the site have gate access to the Civic Way car park, however there is no formal arrangement for this to be maintained.

Possible Site Access Arrangement Plan



Source: Mott MacDonald

Conclusions and suggested mitigation

Summary of issues:

- No significant issues were noted at this site

Recommendations:

- A review of parking provision will be required to clearly identify requirement for off-street parking to mitigate on-street parking overspill onto the surrounding residential streets
- May need to review speed of traffic through the B5136 The Village/ Heath Road roundabout following two comments on the Wirral Liveable Street website (link, link). Could warrant traffic calming measures
- Improvements to pavements and footways is recommended, particularly along Civic Way and redundant accesses made good to footway. Civic Way carriageway may need to be refurbished to make good damage caused during construction.
- Maintain pedestrian connection to Heath Road
- A review of cycling provision is recommended around the site
- Access to Wirral Evolutions must be retained from Civic Way through the site as the Highcroft is unadopted
- Street lighting will need to be provided within the site, and possibly improved along Civic Way
- Highways within the site will need to be constructed to adoptable standard.
- Tactile paving across east end of Civic Way is recommended to complement dropped kerb crossing

		Cost estimate for off-site works for site ref: 1610: • Footway and carriageway improvements / repairs, Civic Way: £75,000 • Street lighting improvements: £20,000 • Civic Way / The Village junction improvement: £10,000				
		Prepared by: Daniel Blakey	Checked by: James McManus	Approved by: Duncan Crockett	Date: 12/01/21	Project Details	Wirral Local Plan Support: Additional sites review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

North:

- Utility apparatus doesn't appear to be within study area.

East:

- Utility apparatus doesn't appear to be within study area.

South

- Potable Water – 1 no. 140mm PE within Northern footway of Civic Way.
- Electricity – 1 no. LV cable within Northern footway of Civic Way.
- Wastewater and Gas apparatus don't appear to be within study area.

West

- Gas – 1 no. LP 90mm PE bisects site to South-West corner.
- Potable Water, Wastewater and Electricity apparatus don't appear to be within study area.

Potentially Affected Utilities

1 no. LP gas (90mm PE).

Scottish Power Energy Network Budget Estimate

- The findings of the SPEN study indicate that the site will require 480kVA, with the existing LV network unable to accommodate this. Thus, the site will require 1x HV Y-type substation, an extension of the LV main and 60x LV services. LV reinforcement is also required to facilitate connection.
- The approximate cost for the full works is estimated at £190,000

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, only one minor diversion needed to progress with proposed works, diversion approximately £5,000.. However, the SPEN study suggests the site will require a HV substation at a cost of £190,000. In addition to this, it may also require 1x HVY-type substations, extension of LV Main, 60x LV services, and LV Reinforcement to facilitate connection. This will need to be confirmed as planning for the site progresses.

RAG Status of Existing Utility Apparatus		Commentary	*Minor diversion required.*

Site Visit Photos

Source: Mott MacDonald

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 12/01/21*	Project Details	Wirral Local Plan Support: Additional sites review

Site ref: RES-SA4.2 Former MoD, Old Hall Road, Wirral International Business Park

EXISTING SCENARIO

Area	8.00ha
Location	Land adjacent to Old Hall Road.
Proposed land use	Residential – 255 houses

Existing highway network

- The site is located on Old Hall Road, east of a signalised junction with Chester Road. The site is located within Wirral International Business Park, with the surrounding highway roads predominantly providing access to surrounding existing employment land uses.
- A roundabout, east of the site, joins Old Hall Street, Riverwood Road and Bassendale Road.
- Old Hall Road features a wide carriageway with footways on both sides and has a speed limit of 30mph.
- Within the last 5 years, there have been 2 slight PIAs recorded on the roundabout connecting into Old Hall Road and Bassendale Road. There has also been 1 serious and 3 slight PIAs recorded on Old Hall Road close to the junction with Hardknott Road.

Vehicular access

- There is an existing access point into the site from Old Hall Road.
- There could be potential for an additional access into the west of the site from Hardknott Road and/or Grisedale Road. A private, narrow access serving Leverhulme Sports Field runs to the east of the site, next to Riverside Park.

Walking / Cycling connectivity

- Pedestrian footways are segregated by linear green space on both sides of Old Hall Road, providing a buffer for pedestrians from the carriageway.
- There is a pedestrian controlled crossing at the junction of Old Hall Road and the A41 New Chester Road, approximately 220m to the west.
- The Old Hall Road/Riverwood Road roundabout features uncontrolled pedestrian crossing islands.
- There are cycle lanes provided on Bassendale Road along both sides of the carriageway, as well as a segregated route along the footway of Riverwood Road, east of the site which connects to the Wirral Circular Trail.

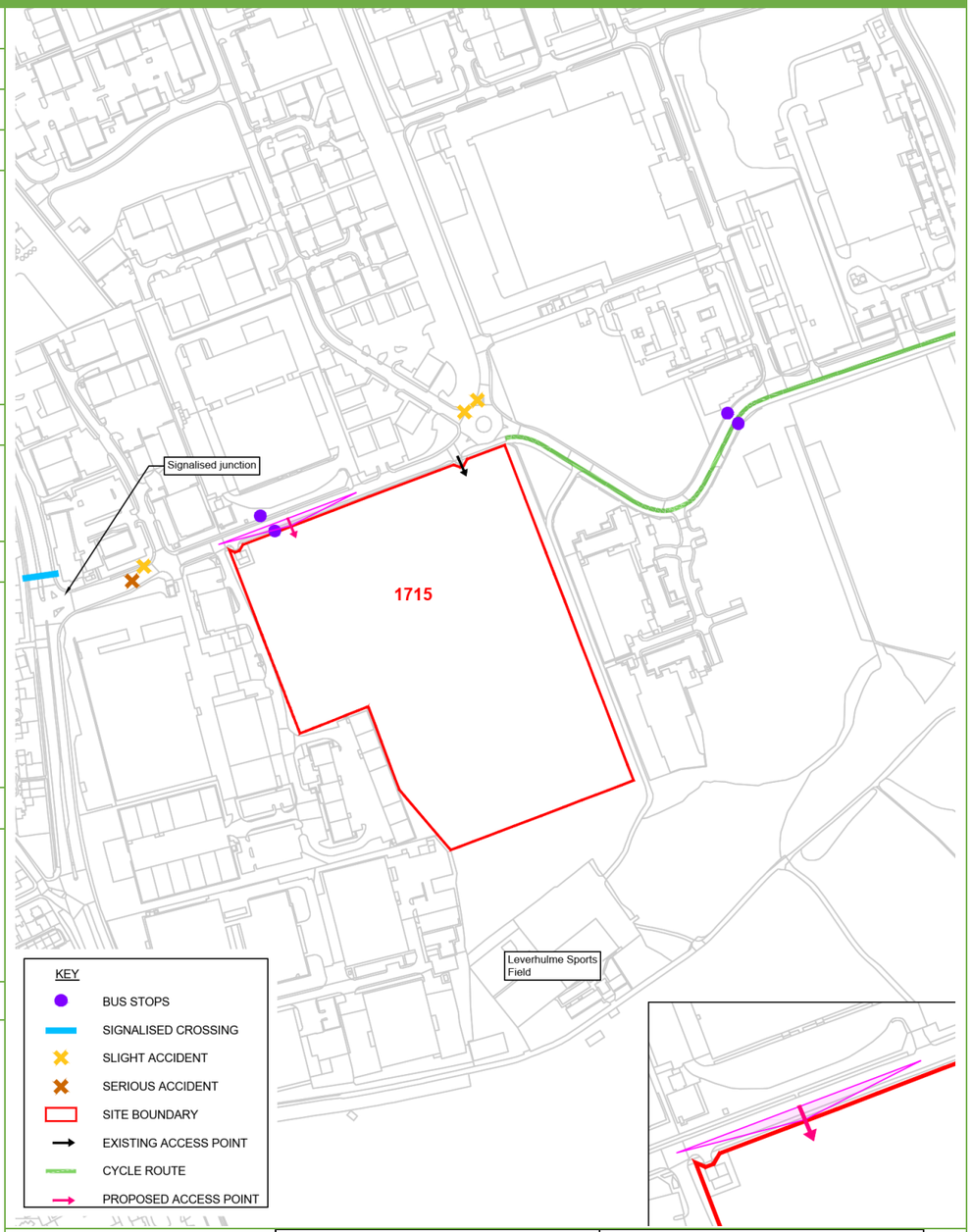
Public Transport connectivity

- The nearest bus stops are on Old Hall Street adjacent to the site boundary. These are simple stops with no shelters.
- The bus services provide access to Birkenhead and Eastham Ferry every 30 minutes daily during the daytime periods and every 60 minutes daily for night-time services.
- The nearest rail station is Bromborough Rake situated 1.5km to the west of the sites. It has regular services every 15 minutes between Liverpool and Chester/Ellesmere Port. This station is suitable for wheelchair and pram access.

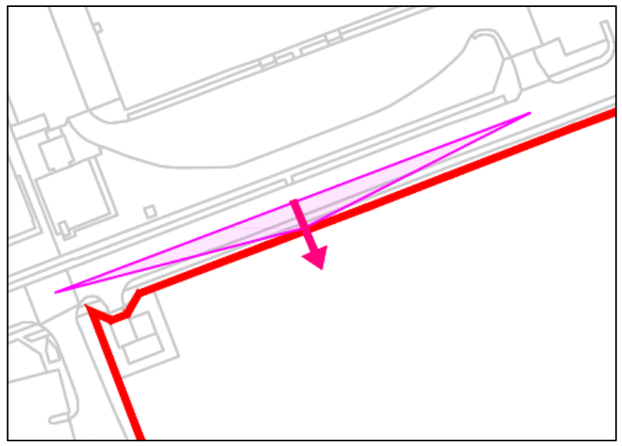
PROPOSED SCENARIO

Proposed development and network impact

- The site layout suggests 255 units (23 x 2 bed houses; 141 x 3 bed houses; 91 x 4 bed houses) with 487 parking spaces.
- Applying this density to the suburban houses trip rate provides the level of trip generation as shown right.
- Parking for the properties is suggested in accordance with the Wirral Parking Standards SPD.



1715	*Trip rates*			*Trip generation (rounded)*		
Time period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.117	0.335	0.452	30	85	115
PM peak (17:00-18:00)	0.307	0.153	0.46	78	39	117

	Comments and assumptions				
	• The site is accessed via one existing access points to the eastern end of Old Hall Road, with a new, second access to the western end. • The visibility splays on Old Hall Road are sufficient to accommodate these access points. • The junction of Old Hall Road / A41 experiences capacity issues during the AM and PM peaks which may be exacerbated by the proposed development.				
	Conclusions and suggested mitigation	GREEN			
	• The bus stops on Old Hall Road should be upgraded to Category F (basic shelter), with 2 required. Contributions towards enhanced bus services may be necessary. • Whilst the speed on Old Hall Road is 30mph, this may require traffic calming measures as given its straight, wide nature, it is likely to attract faster speeds in reality. This would require review and has therefore not been costed for at this stage. • It is also suggested that a crossing is provided on Old Hall Road to facilitate access to the bus stops. One pelican crossing has been assumed. • The level of housing in the area is likely to require additional bus services providing. Cost per annum as a state subside for new bus service is £150,000 p.a. (not included in the below). • The existing access point would be utilised, but an allowance for upgrade of this into a suitable residential access point has been allowed for. • A second access point would be required to serve the site. An indicative cost for this has been included for. Cost summary for 1715 • 2 x bus stop upgrades on Old Hall Road • 1 x pelican crossing on Old Hall Road • Upgrade of existing access point • New access point on Old Hall Road • Total (including mark ups) = £319.7k Cost per annum for a state subsided new bus service is £150,000 p.a. (not included in the above).				 Old Hall Road site access visibility splay (Site 1715)
	Prepared by: C. Reddington	*Checked by: C. Sherratt*	*Approved by: D. Crockett*	*Date:* 25/09/2019	*413660 – Wirral Urban Brownfield Site Residential Potential Assessment – Stage 2, Transportation*

Site ref: RES-SA4.2 Former MoD, Old Hall Road, Wirral International Business Park

EXISTING SCENARIO

Location	Former MOD, Wirral International Business Park
Proposed land use	Residential – 255 mixed family houses

Existing Utility Apparatus

North:
- 33kV, 11kV Cables within Southern footpath of Old Hall Road. 33kV Cables terminate at sub-station adjacent to North-Western site boundary
- Foul Sewer (150mm) originates within Southern footpath of Old Hall Road at North-East corner of site
- Highway Sewer (600mm) originates within Southern footpath of Old Hall Road at North-East corner of site

East:
- Trunk main - Water (315mm PE) along Eastern perimeter of site boundary
- 11kV Cables along Eastern perimeter of site boundary
- CLH Fuel Pipeline (SJ3582) spans along Eastern site boundary. Pipeline appears to enter site boundary at North-East corner and exits at South-East corner.

South:
- 11kV Cables adjacent to South-Eastern and South-Western corners of site boundary
- 33kV, LV Cables adjacent to South-West corner of site boundary. Cables terminate at sub-station adjacent to site boundary

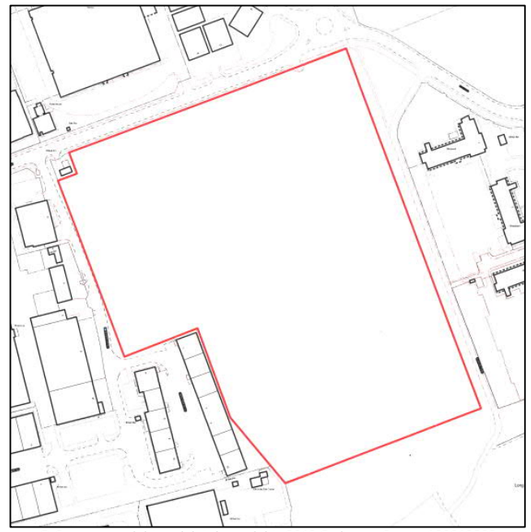
West:
- Potable water (6" PV) within Eastern footpath of Hardknott Road
- LV Cables span Western perimeter of site boundary
- LV, 11kV, 33kV Cables within Eastern footpath of Hardknott Road. HV Cables terminate at sub-station adjacent to North-Western corner of site boundary

Potentially Affected Utilities

North:
- Should entrance to development be gained from Riverwood Road, 33kV Cables may be affected.

East:
- CLH Fuel Pipeline (SJ3582) spans along Eastern site boundary. Pipeline appears to enter site boundary at North-East corner and exits at South-East corner.

RAG Status of Existing Utility Apparatus:		Commentary:	Alignment of existing CLH Pipeline will form a major constraint to the development of the plot along the Eastern edge. It is recommended that no works are done which would result in apparatus having to be diverted.



PROPOSED SCENARIO

Proposed utilities demand calculations

Electric: 1020kVA. Electric load estimation:
- Houses with gas heating and no EV – 2kW per a house (estimated from SPEN). 255 houses on site
- EV estimated as 3kW (SPEN EV Handbook). Estimated that 1 EV charger per a house and/or 50% of apartment parking.

Gas:
- Total gas input for the whole site is estimated at 2,992,910 kWh/annum
- Estimated gas peak input of 1,701 kW
- It is assumed that all apartments have no gas and are therefore electrically heated

Water:
- Annual water consumption for the whole site is estimated to be 49,645 m^3/annum
- Peak flow rate for the entire site is estimated to be 18.89 l/s

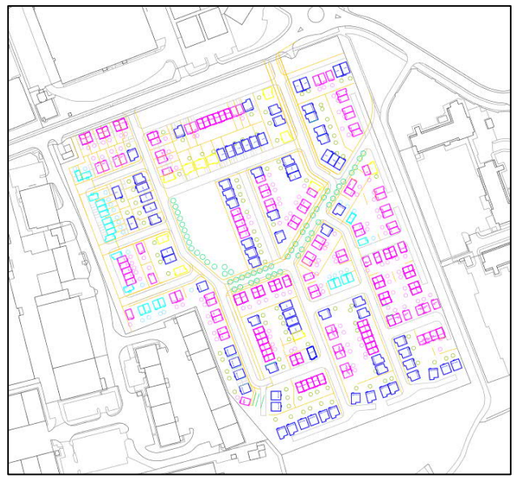
Commentary on available capacity and high-level budget costs estimates for upgrades (as required)

Electric:
Existing LV network cannot accommodate the proposed site. 2x HV X-Type substation to be installed. Approximate Costing from SPEN £400K.

Gas:
Initial contact with Cadent, suggests no issues with capacity for the sites. Further information is not available free of charge.

Water:
Initial contact with United Utilities (UU), suggests no issues with capacity for the sites. We have made online applications to obtain costs and the total budget cost estimate from UU for this site is £300,390.00

Development Masterplan:



Source: OPEN

Prepared by: J. Joinson	*Checked by: J. Ingram*	*Approved by: C. Sherratt*	*Date: 13.12.19*	*413660 – Wirral Urban Brownfield Site Residential Potential Assessment – Stage 2, Utilities*

Site ref: RES-SA4.3 (Part A), Land at Riverside Park, Riverwood Road, Bromborough

EXISTING SCENARIO

Area	3.37ha
Location	Land adjacent to Old Hall Road and Riverwood Road at Wirral International Business Park.
Proposed land use	Residential - 107 houses

Existing highway network

- The site is situated along Riverwood Road east of the roundabout with Old Hall Road. These roads form part of the local roads within Wirral International Business Park which surrounds the site to the north.
- Old Hall Road links with the A41 New Chester Road at a signalised junction to the west of the site.
- Riverwood Road is a single carriageway, 30mph road and features a footway on the south side of the carriageway only, but which also accommodates a cycle lane.
- Within the last 5 years, there have been 2 slight PIAs recorded on the roundabout connecting into Old Hall Road and Bassendale Road. There has also been 1 serious and 3 slight PIAs recorded on Old Hall Road close to the junction with Hardknott Road.

Vehicular access

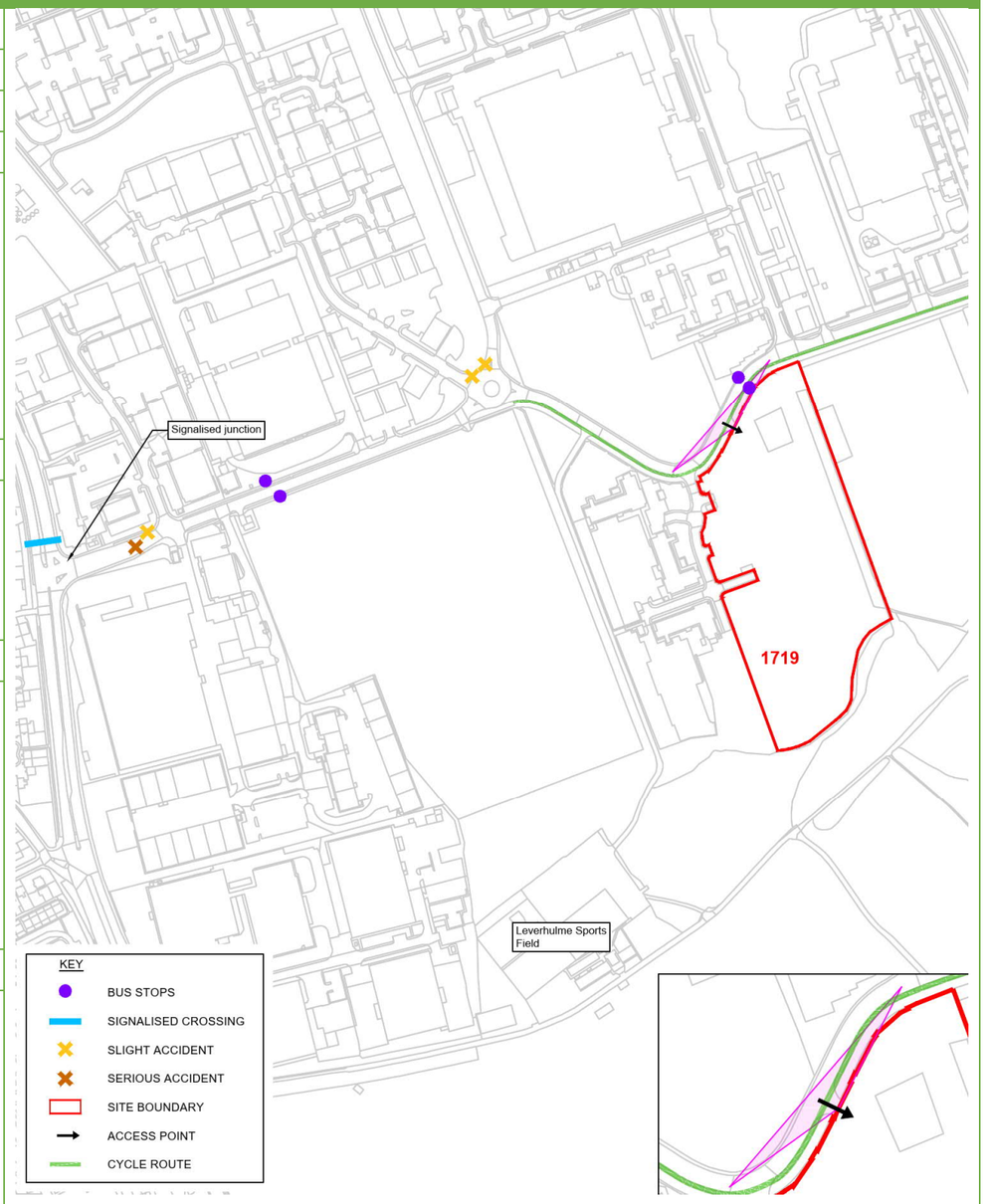
- There is an existing access point into the site from Riverwood Road. The visibility splay of this acvess was assessed and it was found to be sufficient for a 30mph road.
- The site could also be accessed from the adjacent Riverside Business Park site which has its own access from Riverwood Road, although this appears to be unadopted.

Walking / Cycling connectivity

- There is a footway on the southern side of Riverwood Road only, with footways on both sides of Old Hall Road, providing a connection to the A41
- There is a pedestrian controlled crossing at the junction of Old Hall Road and the A41 New Chester Road, approximately 640m to the west.
- The Old Hall Road/Riverwood Road roundabout features uncontrolled pedestrian crossing islands.
- There are cycle lanes provided on Bassendale Road along both sides of the carriageway, as well as a segregated route along the footway of Riverwood Road.
- The Wirral Circular Trail is located to the east of the site.

Public Transport connectivity

- The nearest bus stops are on Riverwood Road that are immediately adjacent to the northern side of the site. These are simple stops with no shelters.
- The bus services provide access to Birkenhead and Eastham Ferry every 30 minutes daily during the daytime periods and every 60 minutes daily for night-time services.
- The nearest rail station is Bromborough Rake situated 1.5km to the west of the sites. It has regular services every 15 minutes between Liverpool and Chester/Ellesmere Port. This station is suitable for wheelchair and pram access.

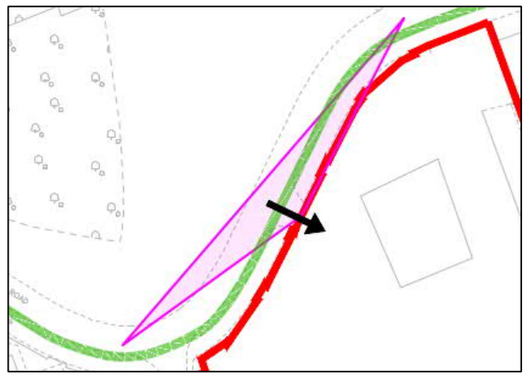


PROPOSED SCENARIO

Proposed development and network impact

- The site layout suggests 107 units (7 x 2 bed houses; 45 x 3 bed houses; 55 x 4 bed houses) with 207 parking spaces.
- Applying this density to the suburban houses trip rate provides the level of trip generation as shown right.
- Parking for the properties is suggested in accordance with the Wirral Parking Standards SPD.

1719	*Trip rates*			*Trip generation (rounded)*		
Time period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.117	0.335	0.452	13	36	48
PM peak (17:00-18:00)	0.307	0.153	0.46	33	16	49

	Comments and assumptions				
	• The site would be accessed via an existing access point which currently serves Riverside Business Park. It is not confirmed if this access road is adopted highway, and it appears it may be private. • The visibility splay for the existing access point on Riverside Road which serves the site directly (although not proposed to be used) has been assessed and can be achieved (see right) as an alternative to access which would not share access with the Business Park. This is not currently suggested by the masterplan however. • The junction of Old Hall Road / A41 experiences capacity issues during the AM and PM peaks which may be exacerbated by the proposed development.				
	Conclusions and suggested mitigation		GREEN		
	• The bus stops on Riverwood Road should be upgraded to Category F (basic shelter), with 2 required. Contributions towards enhanced bus services may be necessary. • It is not assumed that a crossing would be required on Riverwood Road to ensure access to both bus stops, as the volume of traffic is lower than that on Old Hall Road. • If the route is to be adopted, a traffic regulation order (TRO) would be required to formalise this. This would also require option the highway to be upgraded to an acceptable standard (which has not been costed for at this stage). • The existing access point would be utilised, but an allowance for upgrade of this into a suitable residential access point has been allowed for. Cost summary 1719 • 2 x bus stop upgrades on Riverside Road • TRO to adopt access to Riverside Business Park (note no upgrade of carriageway proposed at this point) • Upgraded access point • Total (including mark ups) = £133.2k Cost per annum for a state subsided new bus service is £150,000 p.a. (not included in the above).				 Riverwood Road site access visibility splay (Site 1719)
	Prepared by: C. Reddington	*Checked by: C. Sherratt*	*Approved by: D. Crockett*	*Date:* 25/09/2019	*413660 – Wirral Urban Brownfield Site Residential Potential Assessment – Stage 2, Transportation*

Site ref: RES-SA4.3 (Part A), Land at Riverside Park, Riverwood Road, Bromborough

EXISTING SCENARIO

Location	Land at Riverside Park, Wirral International Business
Proposed land use	Residential – 107 mixed family houses

Existing Utility Apparatus

North:
- 33kV Cables within Southern footpath of Riverwood Road
- Potable water (160mm PE) within Southern footpath of Riverwood Road
- Foul Sewer (150mm) within Southern footpath of Riverwood Road
- Highway Sewer (675mm) within Southern footpath of Riverwood Road

East:
- 3 Nos. 33kV Circuits along site boundary
- EHV 132kV O/H Cables along site boundary. Pylon Q231 adjacent to site boundary. O/H lines intersect site boundary at South-East of site
- ESSAR Crude Oil pipeline adjacent to Eastern site boundary. Pipeline appears to intersect the site boundary at South-East corner.

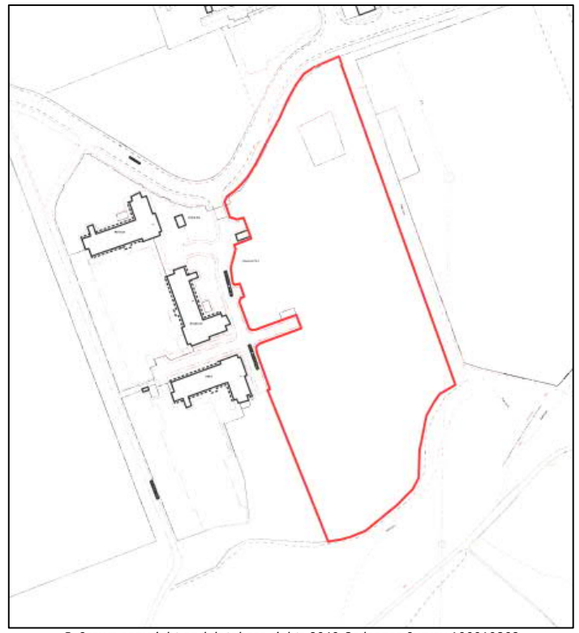
South:
- 33kV Cables along site boundary

West:
- LV Cables within Eastern footpath of Southwood Road
- Existing and proposed Potable Water (160mm PE) within Eastern footpath of Southwood Road

Potentially Affected Utilities

East:
- ESSAR Crude Oil pipeline adjacent to Eastern site boundary. Pipeline appears to intersect the site boundary at South-East corner.

RAG Status of Existing Utility Apparatus:		Commentary:	Alignment of existing ESSAR Oil pipeline will form a major constraint to the development of the plot along the Eastern edge. It is recommended that no works are done which would result in apparatus having to be diverted.



PROPOSED SCENARIO

Proposed utilities demand calculations

Electric: 430kVA. Electric load estimation:
- Houses with gas heating and no EV – 2kW per a house (estimated from SPEN). 107 houses on site
- EV estimated as 3kW (SPEN EV Handbook). Estimated that 1 EV charger per a house and/or 50% of apartment parking.

Gas:
- Total gas input for the whole site is estimated at 1,225,848 kWh/annum
- Estimated gas peak input of 714 kW
- It is assumed that all apartments have no gas and are therefore electrically heated

Water:
- Annual water consumption for the whole site is estimated to be 20,133 m^3/annum
- Peak flow rate for the entire site is estimated to be 7.66 l/s

Commentary on available capacity and high-level budget costs estimates for upgrades (as required)

Electric:
Existing LV network cannot accommodate the proposed site. 2x HV substation to be installed, 132kV diversions and EHV diversions. Approximate Costing from SPEN £1.22M. This costing is in in conjunction with site 1715 due to proximity.
Gas:
Initial contact with Cadent, suggests no issues with capacity for the sites. Further information is not available free of charge.
Water:
Initial contact with United Utilities (UU), suggests no issues with capacity for the sites. The total budget cost estimate from UU for this site is £130,968.00

Development Masterplan:

Source: OPEN

Prepared by: J. Joinson	*Checked by: J. Ingram*	*Approved by: C. Sherratt*	*Date: 13.12.19*	*413660 – Wirral Urban Brownfield Site Residential Potential Assessment – Stage 2, Utilities*

Site ref: RES-SA4.3 (Part B), Land at Riverside Park, Riverwood Road, Bromborough

Area	TBC
Location	Riverwood Business Park, Riverwood Road.
Proposed land use	Residential – 72 houses

EXISTING SCENARIO

Existing highway network

- The site is situated along Riverwood Road east of the roundabout with Old Hall Road. These roads form part of the local roads within Wirral International Business Park which surrounds the site to the north.
- Old Hall Road links with the A41 New Chester Road at a signalised junction to the west of the site.
- Riverwood Road is a single carriageway, 30mph road and features a footway on the south side of the carriageway only, but which also accommodates a cycle lane.
- Within the last 5 years, there have been 2 slight PIAs recorded on the roundabout connecting into Old Hall Road and Bassendale Road. There has also been 1 serious and 3 slight PIAs recorded on Old Hall Road close to the junction with Hardknott Road.

Vehicular access

- There is an existing access point into the site from Riverwood Road which serves the currently occupied Riverwood Business Park.
- Visibility is sufficient in directions from the site.

Walking / Cycling connectivity

- There is a footway on the southern side of Riverwood Road only, with footways on both sides of Old Hall Road, providing a connection to the A41
- There is a pedestrian controlled crossing at the junction of Old Hall Road and the A41 New Chester Road approximately 640m to the west.
- The Old Hall Road/Riverwood Road roundabout features uncontrolled pedestrian crossing islands.
- There are cycle lanes provided on Bassendale Road along both sides of the carriageway, as well as a segregated route along the footway of Riverwood Road.
- The Wirral Circular Trail is located to the east of the site.

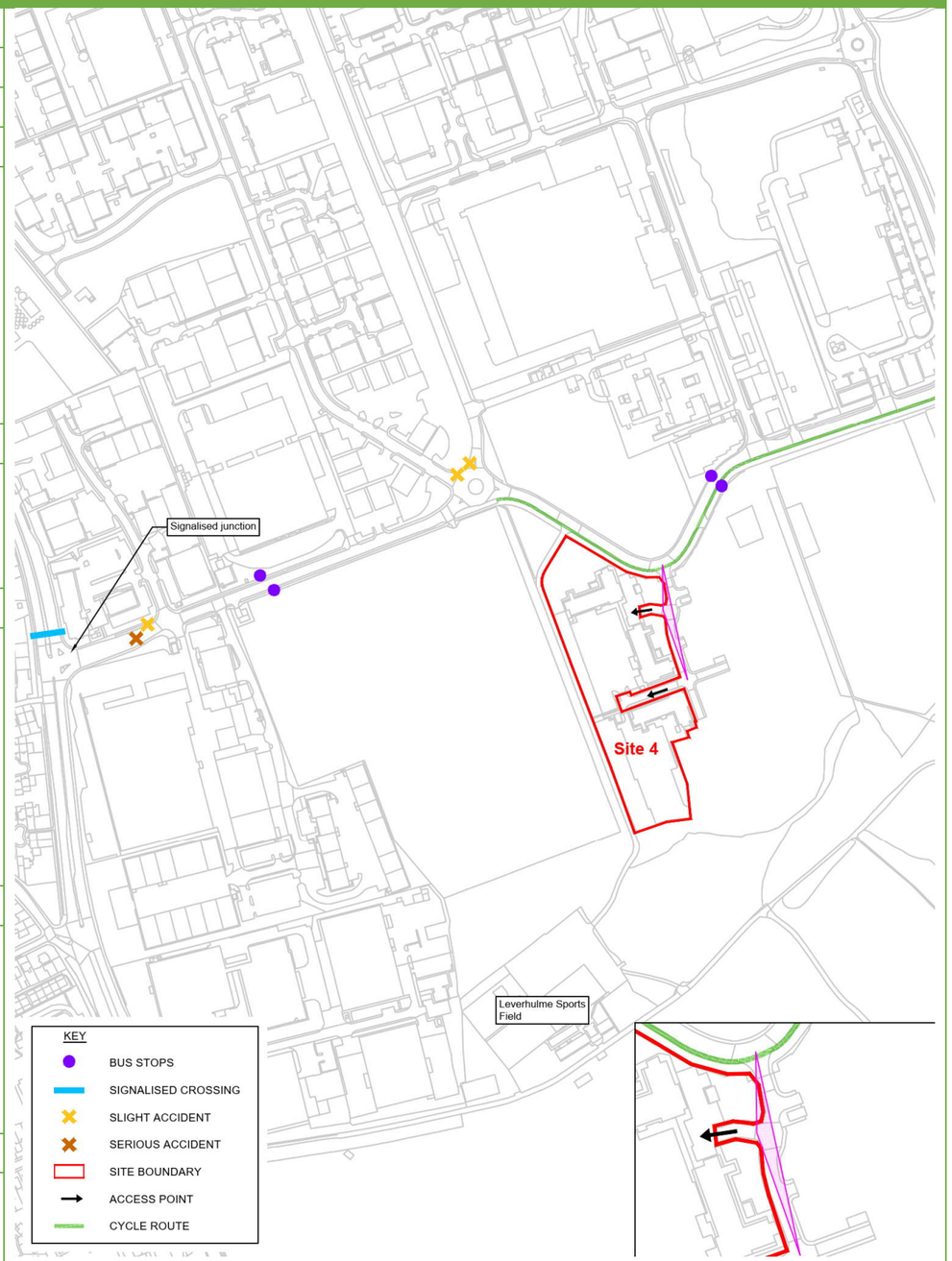
Public Transport connectivity

- The nearest bus stops are on Riverwood Road that are immediately adjacent to the northern side of the site. These are simple stops with no shelters.
- The bus services provide access to Birkenhead and Eastham Ferry every 30 minutes daily during the daytime periods and every 60 minutes daily for night-time services.
- The nearest rail station is Bromborough Rake situated 1.5km to the west of the sites. It has regular services every 15 minutes between Liverpool and Chester/Ellesmere Port. This station is suitable for wheelchair and pram access.

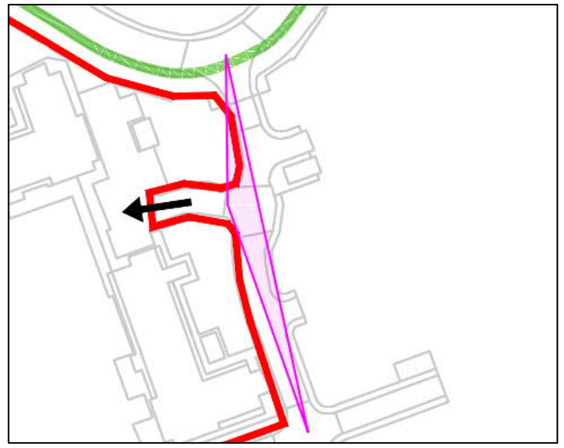
PROPOSED SCENARIO

Proposed development and network impact

- The site layout suggests 72 units (7 x 2 bed houses; 36 x 3 bed houses; 29 x 4 bed houses) with 159 parking spaces.
- Applying this density to the suburban houses trip rate provides the level of trip generation as shown right.
- Parking for the properties is suggested in accordance with the Wirral Parking Standards SPD.



#4	*Trip rates*			*Trip generation (rounded)*		
Time period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.117	0.335	0.452	8	24	33
PM peak (17:00-18:00)	0.307	0.153	0.46	22	11	33

	Comments and assumptions	
	• The site would be accessed via the existing access point which currently serves Riverside Business Park. It is not confirmed if this access road is adopted highway, although it appears it may be private. • The junction of Old Hall Road / A41 experiences capacity issues during the AM and PM peaks which may be exacerbated by the proposed development.	
	Conclusions and suggested mitigation — GREEN	
	• The bus stops should be upgraded to Category F (basic shelter), with 2 required. Contributions towards enhanced bus services may be necessary. • It is not assumed that a crossing would be required on Riverwood Road as the volume of traffic is lower than that on Old Hall Road. • If the route is to be adopted, a traffic regulation order (TRO) would be required to formalise this. This would also require option the highway to be upgraded to an acceptable standard (which has not been costed for at this stage). • The existing access point would be utilised, but an allowance for upgrade of this into a suitable residential access point has been allowed for. Cost summary #4 • 2 x bus stop upgrades on Riverside Road • TRO to adopt access to Riverside Business Park (note no upgrade of carriageway proposed at this point) • Upgrade existing access junction • Total (including mark ups) = £133.2k Note this cost is a duplicate of items costed for under site 1719, as both sites if brought forward separately would require this. If both sites were developed, the costs could be shared. Cost per annum for a state subsided new bus service is £150,000 p.a. (not included in the above).	 Southwood Road site access visibility splay (Site 4)

Site ref: RES-SA4.6: Former Croda, Bromborough Pool

EXISTING SCENARIO

Area	3.5 ha
Location	Land south of Dibbinsdale Brook, Bromborough Pool
Proposed land use	Residential – 108 houses

Existing highway network

- The site is located to the south of Dibbinsdale Brook and is adjacent to a new residential development (Mersey View). No integration between Mersey View and site 2072 is currently possible.
- To the north east, access to the site itself is available only from the roundabout with Dock Road South.
- Dock Road South provides access to the commercial and industrial uses in the area, but provides no link across Dibbinsdale Brook to Port Sunlight. It is single carriageway with a footway on one side and is 30mph.
- The A41 New Chester Road is a 40mph dual carriageway which provides access to the site via Old Court House Road. From here Pool Lane provides access through to the Mersey View residential development, whilst further south, the signalised junction of Old Court House Road/Dock Road South provides a route to the proposed development site.

Vehicular access

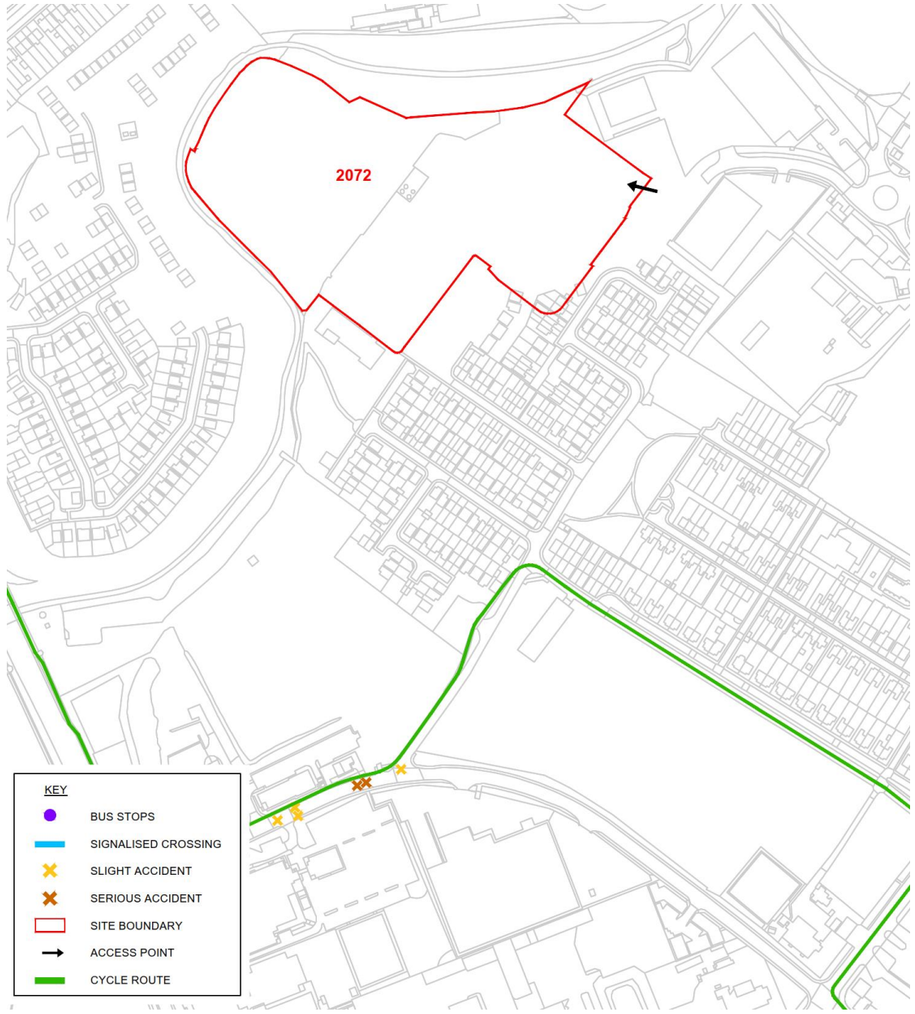
- Access to the site is via Old Court House Road from its junction with the A41 New Chester Road, then via Dock Road South. Dock Road South also connects to the A41 New Chester Road at the Port Causeway junction.
- Due to the natural severance of the site by the River Mersey and Dibbinsdale Brook, there is no vehicular access opportunities to the north of the site.

Walking / Cycling connectivity

- Dock Road South and Old Court House Road feature footways along the carriageway suitable for pedestrians. At the junction of these two roads, a pedestrian-controlled junction is present.
- The 'Wirral Circular Trail' which provides a shared walking and cycling route around Wirral runs to the east of the site, adjacent to the River Mersey. The route leaves the waterfront running on road along Old Court House Road between the A41 New Chester Road and Thermal Road to the south of the site. The area features cycle wayfinding for the route but lacks any cycle infrastructure on the carriageway.
- To the north-east of the site there is a pedestrian footpath linking across Dibbinsdale Brook and providing pedestrian movements through the area where vehicle movements are limited.

Public Transport connectivity

- The nearest bus stops are located on South View, approximately 300m to the south of the site (although due to no pedestrian through route through Mersey View, the distance via Dock Road South would be closer to 950m). Services run between Leasowe, Moreton and West Kirby in the north, to Bromborough and Eastham in the south. Services run at approximately twice an hour during day time and early evenings. Additional bus services via the A41 New Chester Road link to Liverpool and Birkenhead.
- The nearest rail station is Port Sunlight, approximately 1.5km to the west of the site. It has regular services every 15 minutes between Liverpool and Chester/Ellesmere Port.



PROPOSED SCENARIO

Network impacts

- The layout suggests 108 houses (5 x 2bed; 53 x 3 bed; 50 x 4 bed) with 215 parking spaces
- Applying this density to the suburban trip rate provides the level of trip generation as shown right.
- The junction of Old Court House Road and A41 Chester Road operates at over-capacity in the PM peak. Use of Dock Road South / A41 may relieve further pressure at this location associated with the proposed development.
- The site access would be a continuation of Dock Road South into the site.

	Trip rates			*Trip generation (rounded)*		
Time period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.117	0.335	0.452	13	36	49
PM peak (17:00-18:00)	0.307	0.153	0.46	33	17	50

	Comments and assumptions				
	• Parking for the properties should be provided in accordance with the Wirral Parking Standards SPD. • The site would benefit from pedestrian and cyclist connectivity with Mersey View to the south, to prevent excessive trip lengths. Vehicular movements could be kept separate. • Upgrades to the bus infrastructure on South View would be required to encourage public transport use. This may have already been agreed as part of the Mersey View development.				
	Conclusions and suggested mitigation		AMBER		
	• The site would be an extension of the existing new residential development to the south west, with a secondary access route via Dock Road South. • Assessment of the junction of Old Court House Road / A41 will be required to ascertain capacity to accommodate the expected trips from the development. Mitigation of this junction may be required (which would take the form of signal phase updates or physical upgrade as necessary). • No site access has been costed for as it is assumed that Dock Road South would be continued into the site. • Bus infrastructure upgrades on South View would be to Category F standard. Contributions towards service enhancements may be necessary. Cost summary • 2 x bus stop upgrades • Total (including mark ups) = £28.5k Cost per annum for a state subsided new bus service is £150,000 p.a. (not included in the above).				
	Prepared by: C. Reddington	*Checked by: C. Sherratt*	*Approved by: D. Crockett*	*Date:* 25/09/2019	*413660 – Wirral Urban Brownfield Site Residential Potential Assessment – Stage 2, Transportation*

Site ref: RES-SA4.6: Former Croda, Bromborough Pool

EXISTING SCENARIO

Location	Former Croda, Bromborough Pool
Proposed land use	Residential – 108 mixed family houses

Existing Utility Apparatus

North:

East:

- Combined Sewer (450mm) within Eastern side of site boundary. Extends outwards towards Price's Way.

South:

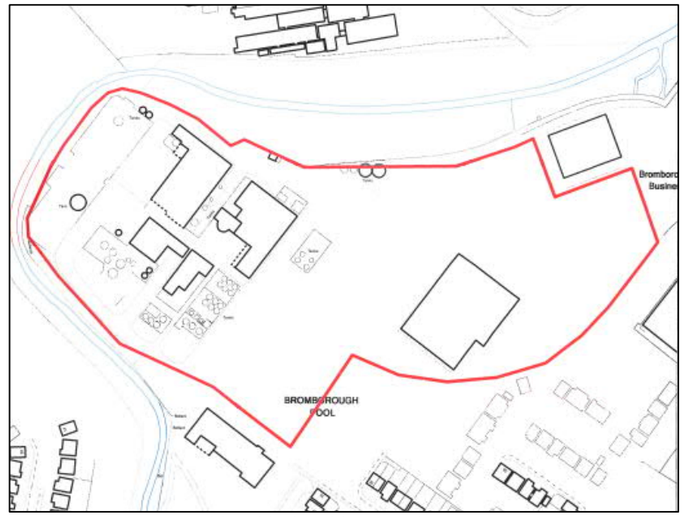
- LV Cables originate and terminate within South-West side of site boundary believed to be out of use

West:

Potentially Affected Utilities

Based on currently held information, no existing utilities within the scope of this study are believed to be affected.

RAG Status of Existing Utility Apparatus:		Commentary:	Based on currently held information, no existing utilities within the scope of this study are believed to be affected.



PROPOSED SCENARIO

Proposed utilities demand calculations

Electric: 433kVA. Electric load estimation:

- Houses with gas heating and no EV – 2kW per a house (estimated from SPEN). 108 houses on site
- EV estimated as 3kW (SPEN EV Handbook). Estimated that 1 EV charger per a house and/or 50% of apartment parking.

Gas:

- Total gas input for the whole site is estimated at 1,267,585 kWh/annum
- Estimated gas peak input of 720 kW
- It is assumed that all apartments have no gas and are therefore electrically heated

Water:

- Annual water consumption for the whole site is estimated to be 22,389 m^3/annum
- Peak flow rate for the entire site is estimated to be 8.52 l/s

Commentary on available capacity and high-level budget costs estimates for upgrades (as required)

Electric:
After speaking with SPEN, they advised that they do not supply utilities for this site. They believe it is Last Mile, however no information has been made available from them to inform this study.

Gas:
Initial contact with Cadent, suggests no issues with capacity for the sites. Further information is not available free of charge.

Water:
Initial contact with United Utilities (UU), suggests no issues with capacity for the sites. The total budget cost estimate from UU for this site is £261,473

Development Masterplan:

Source: OPEN

Prepared by: J. Joinson	*Checked by: J. Ingram*	*Approved by: C. Sherratt*	*Date: 13.12.19*	*413660 – Wirral Urban Brownfield Site Residential Potential Assessment – Stage 2, Utilities*

Site ref: RES - SA4.7, Land off Dock Road South, Bromborough, Wirral

SITE

Area	22.06 ha
Location	Dock Road South, Bromborough, Wirral
Proposed land use	C3 Residential

TRANSPORT

EXISTING SCENARIO

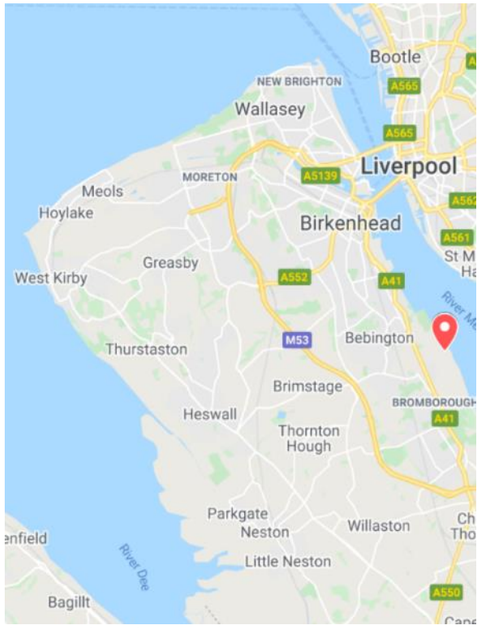
Existing highway network

- The site is located within Wirral International Business Park and consists of separate ownerships. The largest portion of the site is a former Biodiesel site, previously operated by D1 Oils before being sold to Organic Waste Management in 2010.
- The site is bound by Riverbank Road to the south and Dock Road South to the north. The Powerstation – a newly constructed access road – also provides access to the site from the west. Employment uses also surround the site to the north, south and west of site, including a logistics centre, ship repairs and an Asphalt Plant. The River Mersey and Wirral Circular Trail are immediately to the east of the site.
- Riverbank Road is 30 mph with one lane in each direction. It links with Commercial Road to the south, and Thermal Road to the west, both via priority junctions. Thermal Road serves as the main arterial route through the business park. Where Thermal Road meets Riverbank Road, double yellow lines stretch for ~110m along Riverbank Road. Both roads benefit from adequate street lighting.
- The Powerstation is a cluster of eight new industrial units within the business park, first opening in 2018. An access road, also named The Powerstation was constructed as part of this development. The Powerstation access road is a 30 mph, with one lane in each direction and double yellow lines on both sides of the road. The access road is currently privately owned and does not form part of the adopted highway network. Gates at the bottom of the access road bound the development site. However, access road is private; therefore, it is unable to be used as an access point to the development site.
- Dock Road South is a considerably wide (~12m), 30 mph road with one lane in the north-westbound and south-eastbound directions. There are waiting restrictions along the east side of Dock Road South. Double yellow lines are situated along the northern perimeter of the road. Additionally, single yellow lines stretch for much of the southern perimeter of the road, which restrict parking in this location between 8:00am and 18:00pm.
- To the west, Dock Road South meets Thermal Road and Old Courthouse Road at a signalised crossroads junction.
- Both Dock Road South and The Powerstation access road benefit from adequate street lighting. However, the footways on the east side of Dock Road South, adjacent to the site, are in a poor condition.
- The A41 Chester Road is situated to the west of the site, and can be accessed via Old Courthouse Road, Dock Road South, Port Causeway or Magazine Road. The A41 provides links with settlements in Port Sunlight and Birkenhead to the north, as well as Bromborough and Eastham to the south. On a wider scale, it links with junction 5 of the M53, facilitating access to Ellesmere Port and Chester.
- There are no amenities in immediate proximity to the development site, however, Croft Retail Park is situated ~1.2 km to the southwest.
- From 2016-2020, no Road Traffic Collisions (RTCs) have occurred within the immediate proximity of the development site. Two incidents (both serious) have been recorded on Stadium Road, adjacent to Wirral International Business Park; both incidents involved cyclists. There is a cluster of RTCs along Old Courthouse Road to the northwest of the site with four slight and two serious RTCs taking place over the 5-year period; one of the slight incidents involved a cyclist. 6 incidents have been recorded equating to less than 2 per year. The low frequency of RTCs indicates that there are no issues in relation to road safety adjacent the proposed development site. However, the cause of the accidents involving cyclists may need investigating further.
- It should also be noted that there are a number of other Local Plan employment sites also situated within the Wirral International Business Park which could come forward for development including EMP SA4.1 Former Builders Yard.

Vehicular access

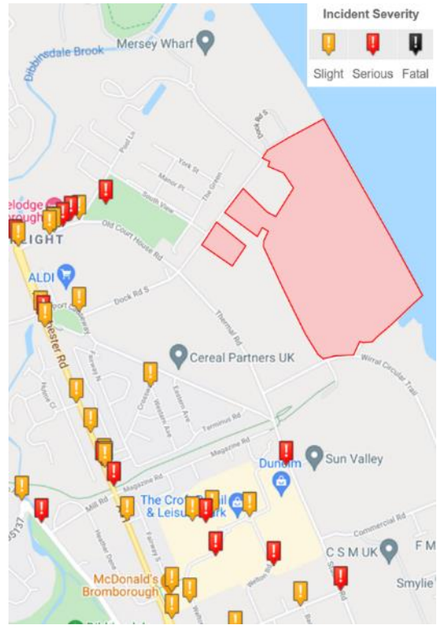
- There is currently a total of five gated vehicular access points to the site. Four appear to provide access to the former Biodiesel site and one provides access to a power station bounding the site immediately to the northeast.
- The two southernmost access points are provided via Riverbank Road, of which, each point connects to the remains of the internal road network of the Biodiesel site, and benefit from good visibility on the approach to Riverbank Road. However, it is important to note that each junction has been designed with heavy goods vehicles in mind. As a result, the large junction radii are not considered suitable if they are to be used to serve a new residential development.
- Three of the junctions are served by Dock Road South. The two southernmost access points connect to the remains of the Biodiesel site internal road network. Visibility at both junctions is constrained due to overgrown vegetation. The northernmost

Location



Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan

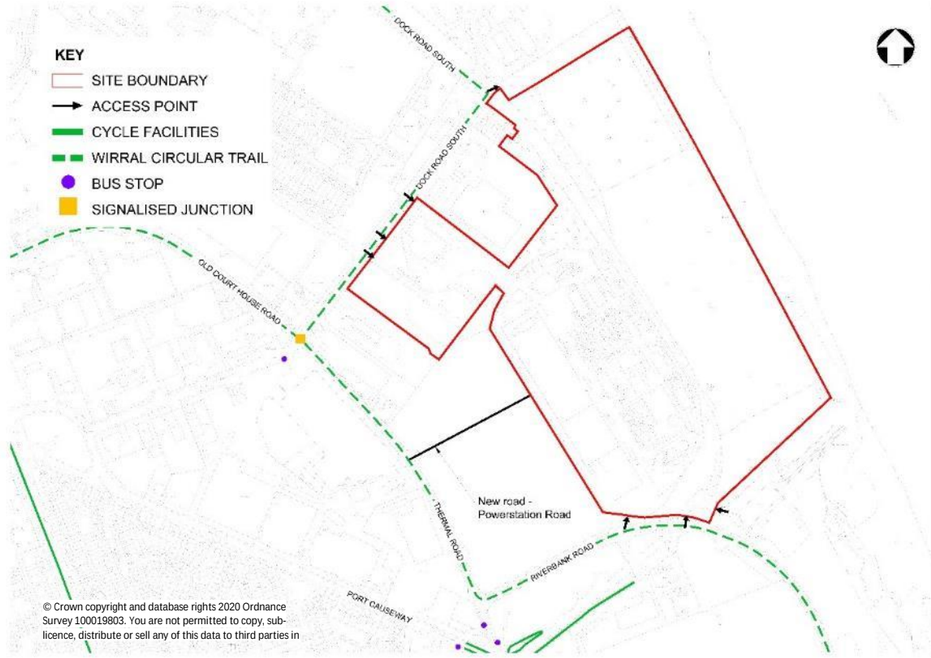
access point along Dock Road South does not connect to the remains of the internal road network of the Biodiesel site as it is a site in separate ownership. Good visibility is provided. This junction benefits from good visibility. The Powerstation access road has been designed in a manner which is mindful of a 'future development phase'; as a result, two possible gated access points to the site are provided via The Powerstation. One of these access points currently exhibits significant topographical constraints. As noted previously, this road is private and therefore can not currently be used as a public access to the proposed development site.

Walking / Cycling connectivity

- There are no Sustrans-recognised cycle routes running in close proximity to the site. However, Old Courthouse Road, Thermal Road and Riverbank Road are all identified as 'on-road signed cycle routes' on the Wirral Cycle Map, and the route forms part of the Wirral Circular Trail. Despite this, the Wirral Liveable Streets Website shows two comments highlighting the absence of safe cycle facilities along this route:
  - *Adjacent to The Powerstation, Thermal Road: "No cycle lane, on busy road fast traffic and multiple articulated vehicles."*
  - *Behind Odeon Cinema, Croft Retail Park, Stadium Road: "Burger van parked in cycle lane every day."*
- An off-road cycle track/bridleway also runs adjacent to Stadium Road/Commercial Road, linking with Port Sunlight railway station to the northwest.
- With regard to walking, there are narrow footways along Riverbank Road. Overgrown vegetation on both the northern and southern perimeters of the road act as a barrier to movement and create a poor walking environment. This is emphasised on the Wirral Liveable Streets Website, as one comment exists along Riverbank Road relating to the lack of adequate safe walking facilities:
  - *"Lots of people have been using this road for cycling and walking. It is currently totally unsafe as everyone is using the road due to the pavements being overgrown".*
- Dropped kerbs and tactile paving are provided at each site access junction on Riverbank Road. However, it is important to note that many of the junctions in this area have been designed with heavy duty vehicles in mind. As a result, the junction radii are large; with four junctions on Riverbank Road with crossing points as wide as 23m. This risks intimidating pedestrians and lowering driver awareness of pedestrians, whilst encouraging vehicles to turn into and out of the site at higher speeds.
- A 220m stetch of Magazine Road, east of Thermal Road is designated as a public right of way footpath.
- Thermal Road generally provides a much safer pedestrian experience. However, notable hazards include a number of wider junctions along Thermal Road. There are various barriers to movement along Dock Road South, with the absence of tactile paving and dropped kerbs at junctions, as well as the width of Dock Road South (~12m).
- Moreover, the signalised junction at Dock Road South / Thermal Road / Old Courthouse Road only has dropped kerbs, tactile paving and pedestrian crossing buttons at just two of the four crossing points (the western Dock Road South and Thermal Road crossings).
- Croft Retail Park is about 500m to the south of the site and will be a popular destination for residents of the new development. There are uncontrolled pedestrian and cycle crossings of Thermal Road, but no controlled facilities.

Public Transport connectivity

- Improvements will be required to the existing public transport network, with limited accessibility to public transport provision within the immediate vicinity of the site. The following services are provided within the immediate road network:
  - Dock Road South (information board);
    - *38 Gold, 38A, 38B - West Kirby to Bromborough/Eastham Rake - 2 services per hour*
  - Thermal Road – Bus stops provide no regular bus services
- Spital is the closest railway station to the site, situated ~2.2km (about a 30 minute walk) to the west. It sits on the Wirral Line of the Merseyrail network and is accessible via Magazine Road/Mill Road. Services from Spital include:
  - Liverpool Central: 5 services per hour
  - Chester: 3 services per hour
  - Ellesmere Port: 2 services per hour



Source: Mott MacDonald

RAG Status of Existing Transport Scenario		Commentary	The site has good connectivity potential, but improvements are required to: better link the site to nearby amenities; access to public transport; make junctions and streets more suitable for a residential rather than industrial use.

PROPOSED SCENARIOIO

Proposed development and network impact

- The site has been allocated for approximately 1,300 C3 residential units of varying density.
- It is important to note that number of other Local Plan employment sites also situated within the Wirral International Business Park which could come forward for development, including the EMP SA4.1 Former Builders Yard, situated immediately south of the Riverbank Road entry to the site. Therefore, the cumulative impact of developing both sites should be considered.
- The potential size of the proposed development and its location remote from high capacity public transport services means that there is the risk for significant traffic impact if the site is not better connected to surrounding facilities and amenities. Key focuses of traffic impact would be at the junctions of:
    - Riverbank Road / Thermal Road;
    - Dock Road South / Thermal Road;
    - Site access points;
    - Port Causeway / New Chester Road;
    - Old Court House / New Chester Road;
    - Caldbeck Road / New Chester Road;
    - Old Hall Road / New Chester Road.
- To further help promote travel by non-car modes, a detailed investigation is required on pedestrian and cycle linkage to key destinations, including: schools; retail and leisure; health centres; and rail stations. This review will be required to ensure barriers to movement are minimised.
- Bus stops are available on Thermal Road, but they are of a low standard and remote from the site. The site should therefore be designed to allow bus services to route through the centre of the development. This will give residents convenient access to public transport and link the site to the wider surrounding area.
- A detailed transport assessment will need to be prepared to consider the above points, with the scope and assessment methodology agreed beforehand.
- A key part of the network which needs to be explored in greater depth will be the Riverbank Road / Thermal Road junction. It is expected this junction will be utilised when vehicles are travelling between the site and the M53. Therefore, it is anticipated the junction will experience a higher volume of daily trips than Dock Road South. Additionally, a high volume of right hand turns from Thermal Road onto Riverbank Road are to be expected. As a result, a detailed review will be required of this junction in particular, with potential consideration of signalising this junction.
- Beyond the Riverbank Road / Thermal Road junction, it is anticipated vehicles will utilise either Caldbeck Road or Old Hall Road, which both meet New Chester Road via signalised junctions. Caldbeck Road already endures high volumes of traffic due to Croft Retail Park.
- The frontage of the site with the River Mersey offers a real opportunity for an amenity to the benefit not only for new residents at the site, but also the wider Wirral population, via an extension to the Wirral Circular Trail.

Trip Generation Analysis

	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.138	0.385	0.523	179	501	680
PM peak (17:00-18:00)	0.363	0.175	0.538	472	228	699

Comments and assumptions

- Parking provision needs to conform with the standards set out in the new Local Plan.
- A Transport Impact assessment and Travel Plan will be required for the site.
- A Construction Management Plan will be required for the site.

Proposed Site Access Arrangement Plan

Conclusions and suggested mitigation

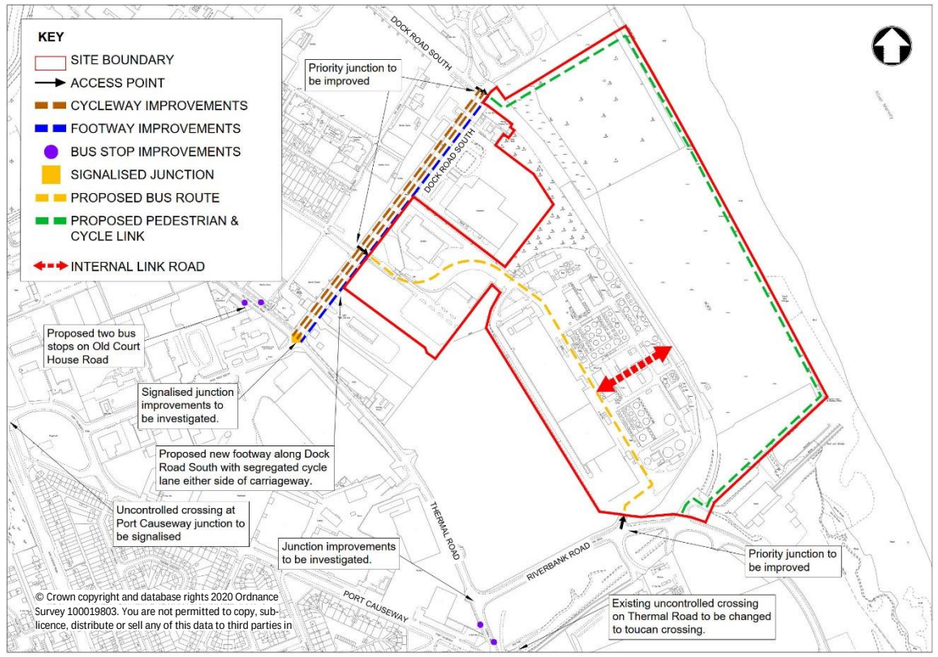
- With regard the above, the following off-site works (as a minimum) are likely to be required:
  - Repurpose site access points to be suitable for a residential development;
  - Upgrade of the footway adjacent to the site along Dock Road South to provide an adequate pedestrian link;
  - A segregated cycle route should be provided along Dock Road South as a section of the Wirral Circular Trail and connecting to the route along the A41 – this could take the form of suitable lite segregation;
  - Provision of a publicly accessible walking and cycling route along the riverside between Dock Road South and Riverbank Road to help promote sustainable travel in the area;
  - The signal junction of Dock Road South / Thermal Road should be upgraded to provide controlled pedestrian crossing facilities on all arms;
  - Depending upon the findings of the transport assessment, the junction of Riverbank Road / Thermal Road may need to be upgraded to signal control incorporating controlled pedestrian crossing facilities;
  - The junction of Port Causeway / New Chester Road should be upgraded to provide controlled pedestrian crossing facilities on all arms;
  - The uncontrolled crossing facility to the south of the Port Causeway / Thermal Road junction should be upgraded to a toucan crossing to promote pedestrian / cycle linkage to the Croft Retail Park;
  - Upgrade of the two bus stops closest to Riverbank Road, and two new bus stops close to Dock Road South on Thermal Road;
  - A subsidy (assume 5 years at £150,000 / annum) may need to be provided to initially support a bus service to route through the site to promote travel by public transport. Suitable internal bus stops would also need to be provided.

Cost summary for the above works is as follows:

- Site accesses: £80,000
- Dock Road South footway: £125,000
- Dock Road South cycleway: £165,000
- Riverside walk / cycle route: £535,000
- Dock Road South / Thermal Road: £200,000
- Riverbank Road / Thermal Road: £200,000
- Port Causeway / New Chester Road £200,000
- Toucan crossing: £90,000
- Thermal Road bus stops: £140,000
- Bus subsidy: £975,000

- Total: £2,710,000

Note also that the internal roads should link all portions of the site to help promote permeability and avoid lengthy cul-de-sacs.



Source: Mott MacDonald

Prepared by: C. Burns	*Checked by: J. McManus*	*Approved by: D. Crockett*	*Date: 13/05/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

<u>North:</u>

- Potable Water – 1 no. 140mm PE within Southern footway of Dock Road South at Northern site boundary.
- Wastewater – 1 no. 1500mm CO overflow pipe, 1 no. 600mm CO combined sewer and 1no. 400mm DI rising main located at Northern site boundary. 1 no. 375mm CO main foul sewer bisects the site in a South-North direction. Sewage pumping station adjacent to site boundary at the North but doesn't appear to be within proposed development area. Combined sewers, main sewers, overflow pipe and rising main feed into sewage pumping station.
- Electricity – LV, HV (11kV) and EHV (33kV) within Northern site boundary. Electricity Substation adjacent to Northern site boundary but doesn't appear to be within proposed development area. Power Station located at North East of site which appears to be outside of the proposed development area. EHV (33kV) and LV cables feed into premises at the Power Station. There is also a Welsh Power Short Term Operating Reserve (STOR) located outside of the boundary at the North.
- Gas – 180mm PE within Northern footway and carriageway of Dock Road South at Northern site boundary.

<u>East:</u>

- All apparatus does not appear to be within study area.

Site Visit Photos

Location: Proposed vehicular access point to site off Riverbank Road

Location: Riverbank Road / Thermal Road Junction

South:

- Potable Water – 1 no. 225mm PE proposed distribution main to be located at North of Riverbank Road, along Southern site boundary.
- Wastewater – 1 no. 375mm CO main foul sewer bisects the site in a South-North direction. 1 no. 225mm VC main foul sewer and 1 no. 450mm VC highway drain located at Southern site boundary.
- Electricity – HV (11kV) in Northern footway of Riverbank Road, along Southern site boundary. LV cables at southern site boundary.
- Gas – doesn't appear to be within study area.

West:

- Potable Water – 1 no. 63mm MDPE BP located in 'The Powerstation' at the Western site boundary.
- Electricity – HV (11kV) cable within Northern footway of 'The Powerstation'.
- Wastewater and Gas apparatus don't appear to be within study area.

Potentially Affected Utilities

North:

- LV, HV (11kV) and EHV (33kV) cables within Northern site boundary. LV cables within southern site boundary.
- 1 no. 375mm CO main foul sewer bisecting the site in South-North direction. 1 no. 1500mm CO overflow pipe within the Northern boundary.

Scottish Power Energy Network Budget Estimate

Site will require 10,400kVA (1300 x 8kVA), with the existing LV network unable to accommodate this.

Please note the above estimate has been determined using existing SPEN study data for similar developments within this area, since SPEN have not yet confirmed the requirements or infrastructure needed for this site. In line with this study, it has been assumed that each dwelling will require 8kVA. It is also assumed that each dwelling will require one LV service, again in line with the SPEN study. Until the above information can be confirmed from SPEN, this information should be treated cautiously.

In addition, it should be noted that the SPEN infrastructure requirements are based on previous proposals for 1300 dwellings at the site.

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, several diversions appear to be required. There is a major diversion required which is the 1 no. 375mm main foul sewer which may have constraints on the proposed work.

Also located within the site is a Defence Infrastructure Organisation MOD abandoned pipeline. Whilst this is abandoned, consideration should be given to the fact that this could have applications for future use. The MOD will reserve the rights to recommission the abandoned apparatus should it prove necessary.

There is also ESSAR oil pipelines located at the Eastern boundary of the site, namely the Tranmere to Eastham ERL Line at the Eastern and the Tranmere to Stanlow Crude Line at the Eastern site boundary. Whilst it is unlikely that these would require diversion, they must be considered in the proposals as they may constrain the development.

RAG Status of Existing Utility Apparatus		Commentary	*Constraint due to existing UU sewer and potential requirement to maintain easement over apparatus.*

Location: Signalised junction at Dock Road South / Thermal Road / Old Courthouse Road

Location: Dock Road South

Location: Thermal Road

Location: Dock Road South

Location: Dock Road South, looking north toward Port Sunlight River Park

Location: View into site via Dock Road South access point

Source: Mott MacDonald

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: J Ingram*	*Date: 13/05/2021*

Project Details	Wirral Local Plan Support: Additional Sites Review

Site ref: RES-SA4.11 – Unilever Research and Development Site

SITE

Area	3.39ha
Location	Unilever Research and Development Site, Quarry Road East, Bebington, Birkenhead, Wirral, CH63 3JW
Proposed land use	Residential – 170-180 units

TRANSPORT – EXISTING SCENARIO

Existing highway network

- Currently, the site is occupied by the existing Unilever Product Science Centre (PSC), which forms part of Unilever's Research and Development service. The facility is used for developing products, microbiology trials and manufacturing prototype products. In addition to this, the site is also occupied by a car park comprising of 42 spaces.
- The site is bound by, and accessed via, Quarry Road East to the north. Bromborough Road bounds the site to the east, residential dwellings, which are accessed via Church Road, bound the site to the north, and to the south is the retained Research and Development site.
- Quarry Road East and St Andrews Road are 20mph, single carriageway in both directions, local roads which predominantly provide access to residential properties (as well as the Unilever Research and Development site). Bromborough Road is a 30mph local distributor road with one lane in each direction.
- There is a light amount of on-street parking associated with the residential developments along Quarry Road East, St Andrews Road and the western perimeter of Bromborough Road (approximately 50m to the north of the site).
- All roads within the immediate vicinity of the proposed development site are well lit, with adequate amounts lighting columns.
- Gradient across the site increases from east to west.
- Local shops and amenities are located around 350m to the north along Bromborough Road. It links with Bebington to the north and Spital to the south. In addition to this, it provides a direct link with the A41, a major road which links settlements along the eastern coast of the Wirral to the north and south, as well as the M53 further afield.
- There are issues with flooding along Bromborough Road. Approximately 200m south of the site, the gradient dips to provide vehicular access under the railway bridge adjacent to Wirral Metals.
- 5-year Road Traffic Collision (RTC) analysis from 2015 to 2019 shows no incidents in the immediate vicinity of the site. Along Bromborough Road, to the south of the site, there 1 serious and 1 slight incident have been recorded. A cluster of 4 slight and 1 serious incidents have been recorded at the junction between Church Road / Brimstage Road / Spital Road / Poulton Road. Given the low frequency of RTCs over the 5-year period, it is deemed that there are no significant road-safety issues within the proximity of the site.
- Two comments have been noted on the Wirral Liveable Streets website regarding Bromborough Road:
  - Regarding the railway bridge traffic signals to the south: "*traffic lights only change for approaching cars, not cyclists, and require an upgrade.*"
  - Regarding the railway bridge walking environment to the south "*there is a lack of adequate safe walking facilities; pavement disintegrated*."
  - Additionally, further comment has been made on the modal filter to the east of the site: "*barrier to access the cycleway is too awkward, especially if you have a trailer with children in; a more suitable barrier is required.*"

Vehicular access

- The existing site can be accessed via Quarry Road East and Bromborough Road. The access on Bromborough Road leads to an internal road on the southern perimeter of the site, facilitating access to additional parking in the south western corner.
- The access points on Bromborough Road benefit from good visibility. However, it must be noted that the gradient change on Quarry Road East / bend at the southern end may have potential to cause issues, although accident data would not suggest this.

Walking / Cycling connectivity

- All footpaths in the vicinity of the site benefit from adequate lighting.
- The western footpath along Bromborough Road terminates at the southern site access junction. The eastern footpath continues to the south, and provides a link under the railway bridge. However, the footpath is narrow, and the underpass induces a poor perception of safety – especially in low light conditions.

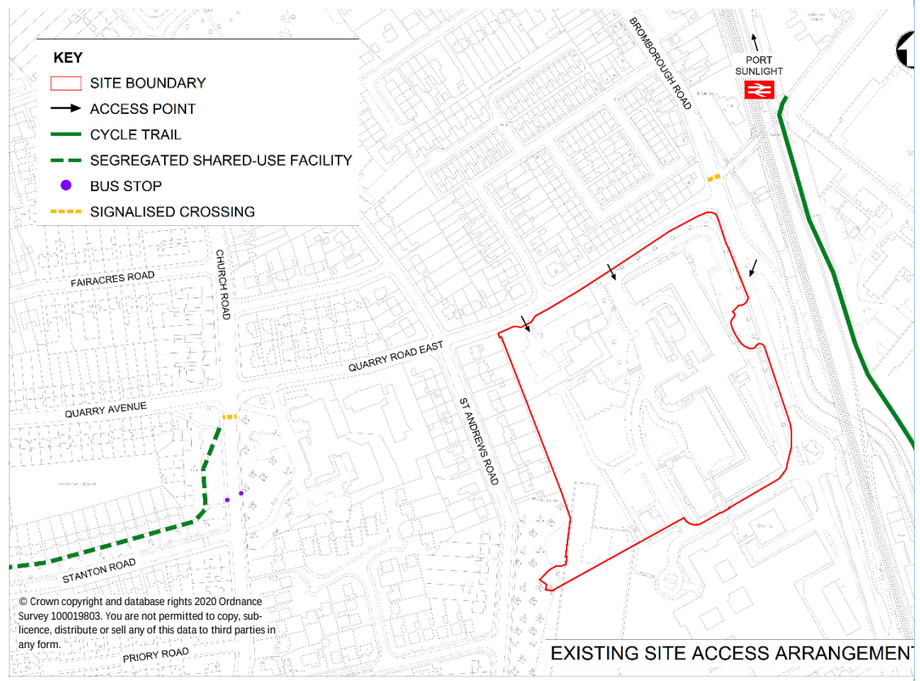
Location

Source: Google Maps

5-Year Accident Analysis

Source: CrashMap

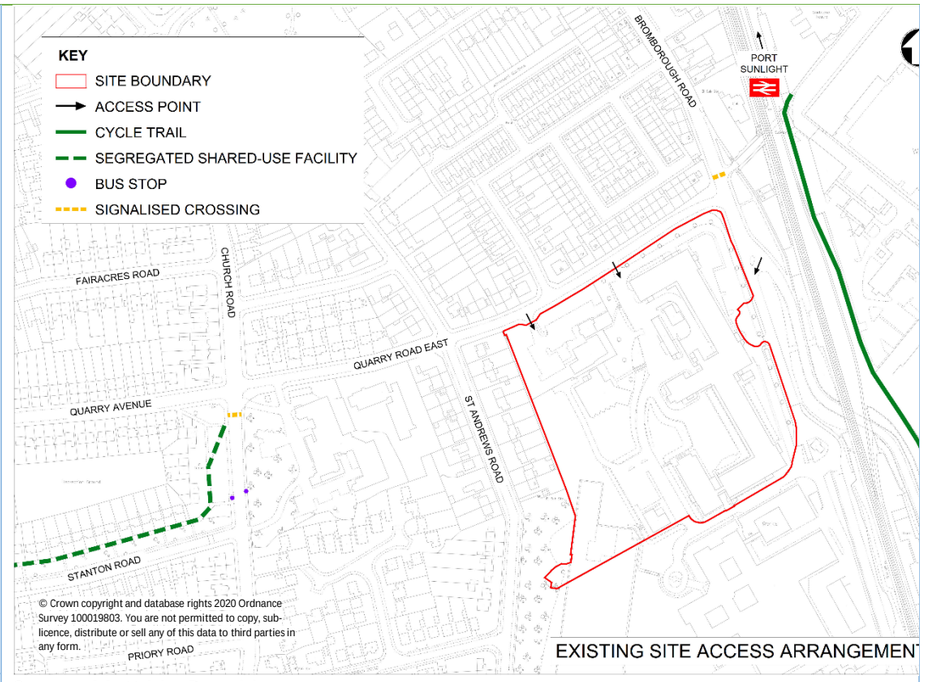
Site Plan *(transport)*



Source: Mott MacDonald

EXISTING SCENARIO

- To the east of the site is a former rail line which now acts as a popular cycling and walking route, and links to the Croft retail park and Wirral Circular Trail. This is identified as an 'off road cycle track or bridleway' on the Wirral Cycle Map. However, access to the route is convoluted in this location, via a route round the back of the Gladstone Theatre.
- To the north of the priority junction between Quarry Road East / Bromborough Road there is a signalised toucan crossing, complete with push button facilities and tactile paving, which provides access to a walking/cycling route to the east of the proposed development site. This facilitates access to Port Sunlight railway station, as well as Unilever Port Sunlight. Dropped kerbs and tactile paving are also provided at all junctions with Quarry Road East.
- No dedicated cycle routes recognised by Sustrans in the vicinity of the site. However, the local streets are conducive to cycling. Quarry Road East is identified as an 'on-road signed cycle route', within the Wirral Cycle Map, and forms part of a wider route linking Clatterbridge to Port Sunlight.
- One comment has noted on the Wirral Liveable Streets website (link) regarding the cycle infrastructure at the junction between Quarry Road East and Bromborough Road:
  - *"This bike lane signage is ridiculous; it runs from the crossing a total of 10ft only to stop again on Quarry Road East. Totally pointless. More thought should have been made to make the entire junction more appropriate for cyclists and pedestrians."*



EXISTING SITE ACCESS ARRANGEMENT

Source: Mott MacDonald

Public Transport connectivity

- Port Sunlight rail station, which lies on the Chester and Ellesmere Port branches of the Wirral Line, is situated approximately 300m to the northeast of the site (a 3-minute walk). From the site, it is accessed via the pedestrian crossing on Bromborough Road and the PROW which runs under the Wirral Line. The station provides services to:
  - Chester – 2 services per hour
  - Liverpool Central – 4 services per hour
  - Ellesmere Port – 2 services per hour
- Bus stops are located on Church Road, approximately 480m west of the proposed development site (a 5-minute walk), and provide access to the following services:
  - 73: Heswall – Poulton Lancelyn Circular
  - 410: New Brighton - Clatterbridge
  - 487: Parkgate Square – Liverpool Hood Street
  - 603, 609, 612, 704: Local school/college bus routes

RAG Status of Existing Transport Scenario		Commentary	No major issues were noted at the site.	No major issues were noted at the site.

PROPOSED SCENARIO

Proposed development and network impact

- The site has been identified for residential use (use class C3). The site has a capacity of approximately 170 dwellings based on the following mix of housing densities and typologies:
  - Low – 32 dwellings per hectare (as per the surrounding developments)
  - Medium – 50 dwellings per hectare (for townhouses / duplex developments)
  - High – 100 dwellings per hectare (apartment blocks)
- Based on these assumptions, applying this density of 170 units to trip rate factors generated by the TRICS database, indicates the likely AM and PM peak trip generation shown in the adjacent table.
- Trip generation analysis should be revisited and explored in-depth upon compilation of the Transport Assessment for the proposed development.

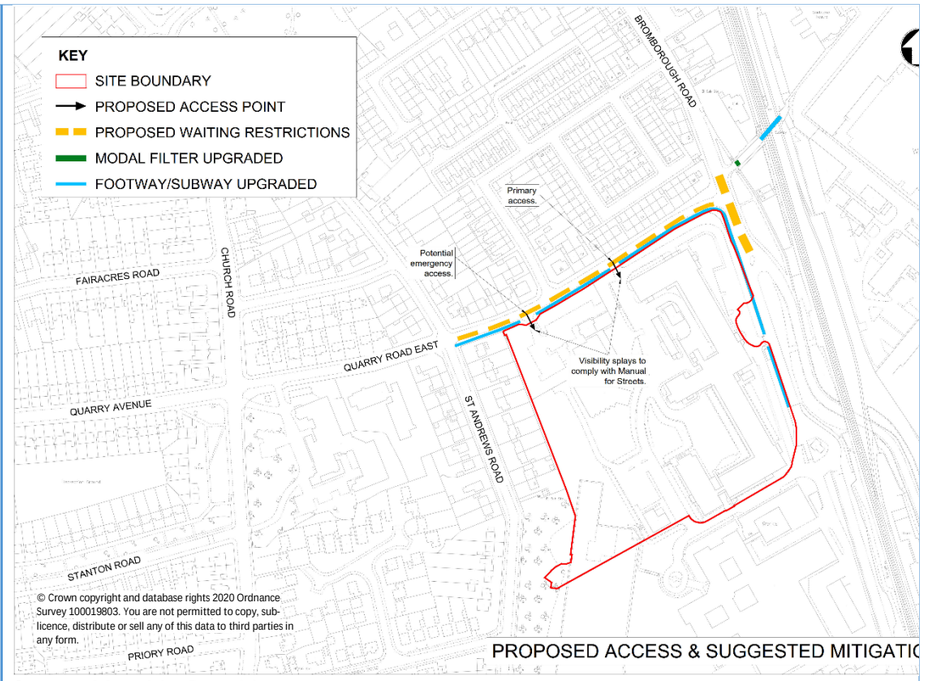
Trip Generation Analysis

	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.138	0.385	0.523	23	65	89
PM peak (17:00-18:00)	0.363	0.175	0.538	62	30	91

Comments and assumptions

Proposed Site Access Arrangement Plan

- It is noted that low density housing should integrate with the surrounding residential developments.
- Parking provision needs to be provided in line with the new Local Plan.
- A Transport Impact assessment will be required for the site.
- A Construction Management Plan be required for the site.



Source: Mott MacDonald

Conclusions and suggested mitigation

- Flood risk mitigation will need to be incorporated in any site design.
- As the southern section of the Unilever site is to be retained, vehicles will continue to access along Bromborough Road. As a result, access to the proposed development can only be achieved on Quarry Road East.
- A visibility splay is required at the site access junction on Quarry Road East to ensure it complies with Manual for Street standards.
- Waiting restrictions on south side of Quarry Road East between St Andrews Road and Bromborough Road are suggested to minimise potential for overspill on-street parking.
- Waiting restrictions on Bromborough Road between Unilever site access and toucan crossing are suggested to minimise potential for overspill on-street parking.
- To promote sustainable access, cycle infrastructure in the immediate vicinity of the site will need to be upgraded, in particular the modal filter at the subway adjacent the pedestrian crossing on Quarry Road East, to ensure DDA compliance. Signage will also need upgrading.
- To promote sustainable access, upgrade to the subway (lighting and refurbishment) between Bromborough Road and Westgate Road to improve pedestrian walk route to Port Sunlight rail station.
- Refurbishment of footways and carriageway adjacent to the site along Quarry Road East and Bromborough Road if damaged by construction traffic.
- Contribution to the upgrade to cycling and walking facilities in the local area to improve access by active modes.
- Upgrade of signal infrastructure where Bromborough Road passes below the rail line to the south of the site to include cycle detectors.

Cost estimate for off-site works for site ref: SHLAA 4090:

- Upgrade of subway modal filters: £10,000
- Upgrade of subway: £50,000
- Refurbishment of footways and carriageway: £50,000 (allowance)
- Walking and cycling improvement contribution: £25,000
- Upgrade of signal infrastructure: £50,000
- Waiting restrictions: £10,000

Prepared by: James McManus	Checked by: Daniel Blakey	*Approved by: Duncan Crockett*	*Date: 12/01/21*	Project Details	Wirral Local Plan Support: Additional Sites Review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

North:

- Potable Water - 3 no. (6" CI, 6" PV and 225mm PE) within Southern footway of Quarry Road East. 2 no. supplies into proposed development.
- Electricity - 2 no. HV (11kV) and 1 no. LV cables within Northern site boundary.
- Gas – 3 no. LP (180mm PE, 63mm PE and 90mm PE) supplies into proposed development.
- Wastewater apparatus doesn't appear to be within study area.

East:

- Wastewater – 1 no. Combined Sewer (225mm VC) within site, adjacent to Eastern site boundary (Bromborough Road). 1 no. Combined Sewer (150mm VC) within Bromborough Road.
- Electricity – 1 no. HV (11kV) within proposed development.
- Potable Water and Gas apparatus don't appear to be within study area.

South

- Utility apparatus doesn't appear to be within study area.

West

- Electricity – HV (11kV) and EHV (33kV) cables within proposed development along Eastern site boundary. Electricity Sub-Station located within proposed development.
- Potable Water, Wastewater and Gas apparatus don't appear to be within study area.

Potentially Affected Utilities

North:

- 2 no. (4" CI and 6" PV) supplies into proposed development.
- 1 no. HV (11kV) cable within Northern site boundary.

East:

- 1 no. Combined Sewer (225mm VC) intersecting the site.
- 1 no. HV (11kV) within proposed development.

West:

- HV (11kV) and EHV (33kV) within proposed development.

Scottish Power Energy Network Budget Estimate

Not yet available

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, minor apparatus appears to encroach upon the proposed development. This should not be considered as being an issue as some of the connections may be required for future use. However, the consideration should be given to the HV Sub-Station, located to the South-West of the plot. Re-location of such facilities are expensive and time consuming, therefore should be considered as a constraint to the development, to avoid the need to re-locate.

RAG Status of Existing Utility Apparatus		Commentary	*Potential requirement to re-locate HV Sub-Station.*

Site Visit Photos

Source: Mott MacDonald

Source: Mott MacDonald

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 12/01/21*	Project Details	Wirral Local Plan Support: Additional sites review

Site ref:RES-SA5.7 - Land at Knutsford Road, Moreton; and RES-SA5.1 - Moreton Family Centre, Pasture Road

TRANSPORT

EXISTING SCENARIO

SITE

Area	*2.6 ha*
Location	Pasture Road, Moreton, Wirral.
Proposed land use	Mixed-use residential and retail

Existing highway network

- The site is bound by the A551 Pasture Road to the west and Knutsford Road to the east.
- Pasture Road is 30mph with one lane in both the northbound and southbound directions. Several active frontages are located along the road adjacent to the proposed development site, where on-street parking provision is provided to facilitates access. To the north, Pasture Road crosses the Wirral Line railway and links with Leasowe Road, linking with New Brighton and Wallasey. To the South, it connects to the A553 Hoylake Road and Upton Road via a roundabout, with the latter facilitating access the M53 junction 2A.
- Knutsford Road is a 20mph cul-de-sac which serves the existing residential properties adjacent the site. It is accessed via a priority junction with the A553 Hoylake Road at its southern end, and has a width of roughly 5.5m, with associated on-street parking provision for residents.
- 5-year Road Traffic Collision (RTC) analysis from 2015 to 2019 illustrates a number of slight and serious accidents in the immediate vicinity of the proposed development site. Three collisions (2 slight, 1 serious) have been recorded at the junction between Maryland / Pasture Road (opposite the proposed development site). An additional 4 RTCs have been recorded along Pasture Road (2 slight, 1 serious and 1 fatal). To the south of the site, there exists a cluster of RTCs at the roundabout junction between Pasture Road / Hoylake Road / Upton Road. Over the five year period, a total of 20 RTCs have been recorded at, or on approach to, the junction (3 serious, 17 slight). Of these RTCs, 4 involved cyclists (2 serious and 2 slight), and 6 involved pedestrians (1 serious, 5 slight). This frequency of RTCs along Pasture Road, particularly at the aforementioned roundabout junction, indicates road safety issues in the vicinity of the development site.
- Based on local knowledge, there are known capacity issues on Maryland Road eastbound at the junction of Pasture Road/Maryland Road and also at the junction of Pasture Road/Hoylake Road in both the AM and PM peaks.
- Two comments have been noted on the Wirral Liveable Streets website regarding Pasture Road, and are summarised below:
  - *"Lack of adequate safe cycling facilities; cars parked on the pavement; behaviour of other road users; needs more safe space to cycle".*
  - *"Car parking bays outside of these shops need removing as they are dangerous to all road users as drivers just reverse out into the road. There is adequate free parking in both the library and the free car park on the side of these shops for people to park safely."*

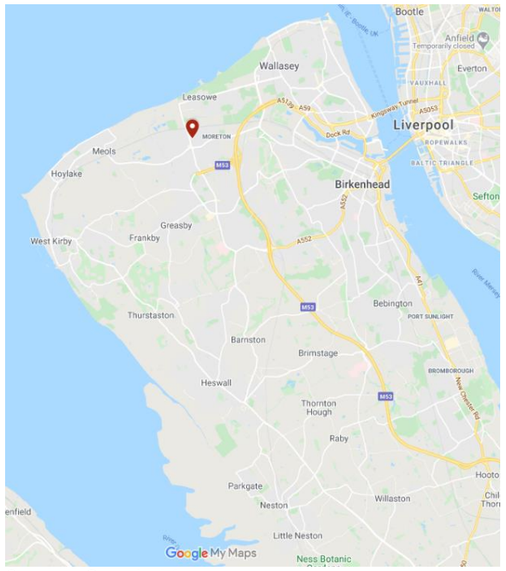
Vehicular access

- There are several points of access to the site along Pasture Road, with an additional access on Knutsford Road. There is no existing vehicular access to the north or east of the site, however it is likely that any design will consist of internal roads which will facilitate access to these areas.
- All existing access junctions benefit from good visibility.

Walking / Cycling connectivity

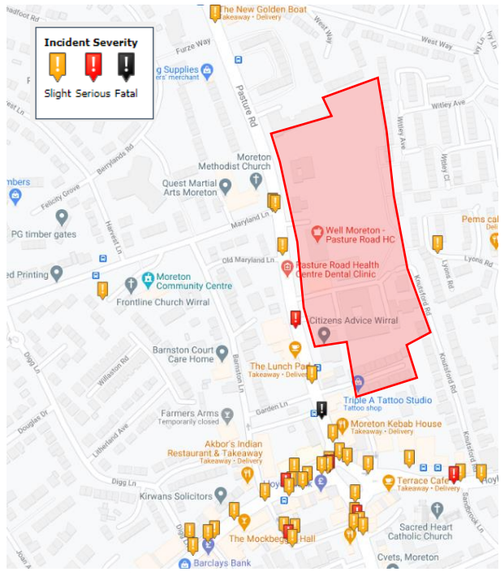
- Push button pedestrian crossing facilities are located on Pasture Road, with associated tactile paving. Wide footways, tactile paving and dropped kerbs are present at each side-road junction with Pasture Road adjacent to the proposed development site. In addition to this, Pasture Road is well lit, with an adequate amount of lighting columns.
- Knutsford Road is a residential road, with 2m wide footways. At the northern end, the footway along the eastern perimeter of the footway reduces substantially (less than 1m wide), as the gardens of residential properties on Lyons Road back on to the footway.
- Knutsford Road provides a direct link from the development site to Hoylake Road and Upton Road further afield, facilitating access to a number of local amenities.
- In accord with Sustrans, no existing cycle infrastructure is available in the vicinity of the site. However, Pasture Road, Hoylake Road and Upton Road are identified as suggested 'level 3' cycle routes (busy roads).

Location



Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

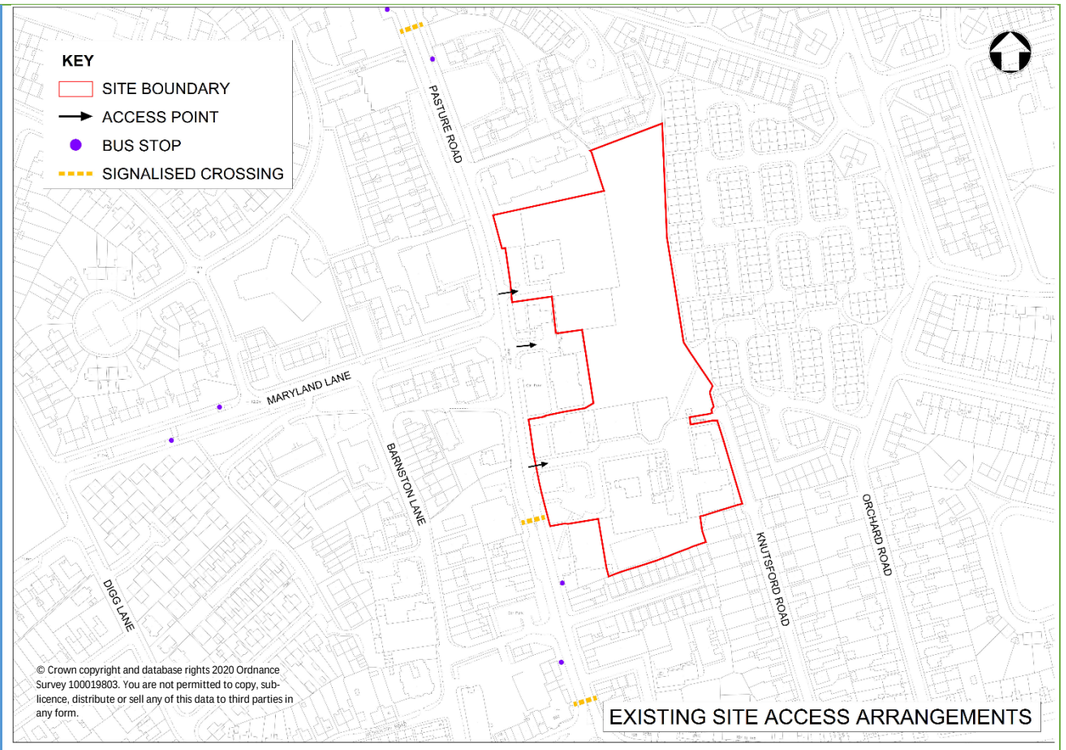
Site Plan

- From Pasture Road approximately 900m to the north of the site, access can be gained the River Birket walking and cycling trail. A further 600m further on is the Hoylake / New Brighton promenade.
- The Pasture Road / Hoylake Road / Upton Road roundabout can be particularly difficult for pedestrians and cyclists to safely cross, and acts as a barrier to movement.
- A further six comments have been noted at the junction between Pasture Road / Hoylake Road / Upton Road on the Wirral Liveable Streets website. Issues generally are focussed around the junction layout; difficulty crossing; lack of adequate safe walking/cycling facilities and behaviour of road users:
  - *"Behaviour of other road users and difficulty crossing was noted as a problem. Better crossings, slower traffic and more space to cycle was recommended to help travel actively and promote safe distancing."*
  - *"I cycle to work on Tarran Estate. approaching the roundabout from Hoylake and turning left is OK and I use the separate road on the left to protect me from traffic on my right. This should be a cycle lane. The return is a nightmare. Turning right at the roundabout means you have to exit across traffic that is joining from Upton Road..."*
  - *"I have to commute to and work in the vicinity. The roundabout itself should be marked better at road level with visible markings to show the lane you are meant to be in to navigate and exit the roundabout. The lights on Pasture Road are too close to the roundabout, they need to be moved back about 50 yards. They are also dangerous in bright sunny conditions as drivers often go through red lights."*
  - *"As both a cyclist and a driver, crossing the Moreton Cross roundabout is hazardous. This would be best served with lights, as it stands now everyone is desperate to push in and not willing to give way to those already on the roundabout."*
  - *"The Moreton Cross roundabout and the signalised crossings on each arm need considerable investment and reconfiguration as the existing arrangement is not fit for purpose. The roundabout is hazardous at best, probably even dangerous, and the adjacent pelican crossings would not be allowed to be installed under the current Traffic Signs Regulations and General Directions 2016."*

Public Transport connectivity

- Pasture Road is a busy public transport corridor, and bus stops are situated adjacent to the proposed development site. The closest bus stop is located approximately 80m to the south of the site, and is of a high quality, providing shelter from wind and rain. The stop is served by the following services:
  - 1B: Pasture Road – Silverburn Avenue (1 service per hour)
  - 16/16A: Moreton Cross – Eastham Rake (1 service per hour)
  - 629, 633, 635, 643, 652, 656: local school/college bus routes
- Moreton Railway Station is situated approximately 350m to the north of the site, accessible via a 3 ½ -minute walk along Pasture Road. It is situated on the West Kirkby branch of the Wirral Line, forming part of the Merseyrail network. Services from this station include:
  - West Kirby – 2 services per hour
  - Liverpool Central – 2 services per hour

RAG Status of Existing Transport Scenario		Commentary	Road safety at Pasture Road, particularly at the Hoylake Road Roundabout, may be an issue.



Source: Mott MacDonald

PROPOSED SCENARIO

Proposed development and network impact

- The site has been identified for both residential (C3) and retail (A1) uses.
- Proposed internal roads may prevent service vehicles accessing the sub-station between the proposed retail and care home sites.
- Pasture Road has been categorised as an 'accident route' with '127 crashes in 3-years'. Additional vehicular traffic generated by the site has the potential to exacerbate this.
- It should be noted that there is currently insufficient information on the proposed development to determine trip generation. Therefore, trip generation must be agreed with the Highway Authority during scoping, and detailed in depth upon compilation of a Transport Assessment for the site.

Trip Generation Analysis

Insufficient information was available on the development proposals at the time of preparing this document.

Comments and assumptions

- Moreton Library carpark is situated within the redline boundary for the development site.
- Topography across the proposed care home site is uneven.
- Fly tipping is an issue at the site.

Proposed Site Access Arrangement Plan

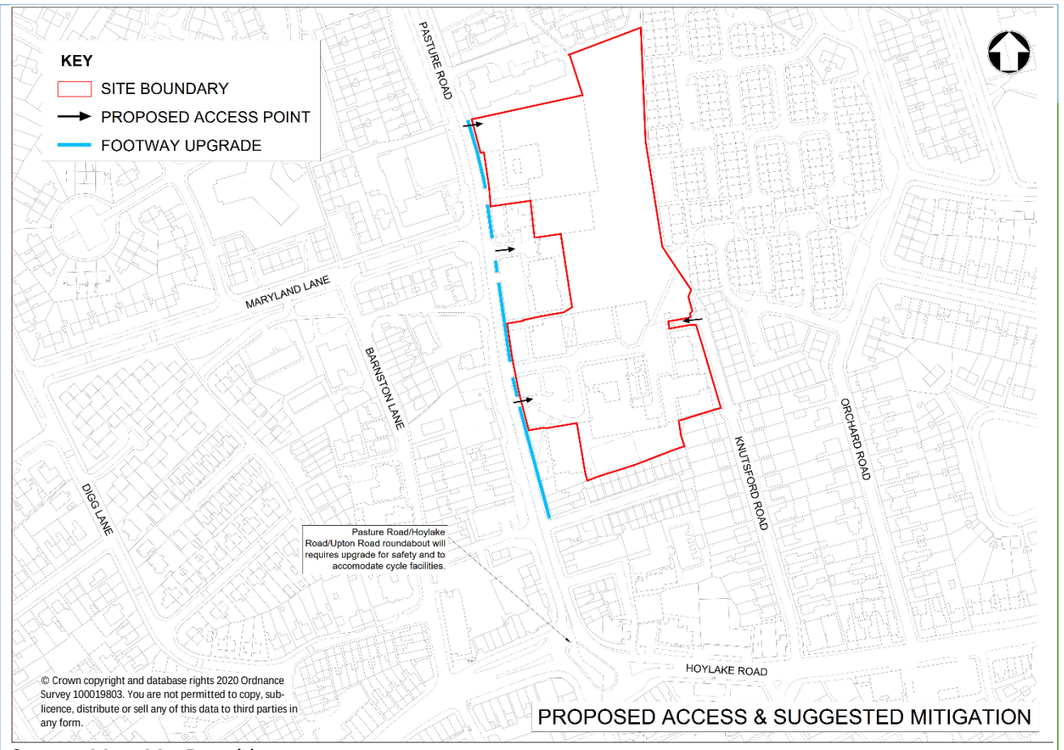
- A Transport Assessment and Travel Plan would be required to understand the full impact of the development on the adjacent road network.
- Parking and cycle parking provision will need to conform with the new standards set out in the Local Plan.

Conclusions and suggested mitigation

- HGV access from Pasture Road may present issues, and therefore an adequate swept path analysis is required for these types of movement.
- Need to ensure there are no tree preservation orders along Pasture Road.
- Consideration for acoustic noise reducing fencing recommended at existing and proposed land uses where appropriate.
- Ensure pedestrian desire line from Knutsford Road through the site is maintained, and upgraded to comply with DDA standards. Walking and cycling connectivity through the site is paramount.
- Proposed residential properties to the north will have no clear route to Pasture Road. Therefore, an east-west through-route is recommended at the site.
- An additional bus-stop with shelter adjacent to the site, in between the current provision on Pasture Road, is recommended.
- Waiting restrictions may be required along the east side of Pasture
- Street lighting along Pasture Road would need to be upgraded to accommodate access to the new development.
- Upgrade footways along Pasture Road to ensure an even surface for pedestrians.
- The Pasture Road / Hoylake Road / Upton Road roundabout will require an upgrade, in particular to address the safety issues at the junction, and also to accommodate the provision of cycle infrastructure.

Cost allowance summary for SHLAA 2007, 2008 and 2010:

- Additional bus stop: £15,000
- Upgrade street lighting: £20,000
- Upgrade footway: £50,000
- Roundabout improvement: £250,000 - £500,000



Source: Mott MacDonald

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

North:

- Utility apparatus doesn't appear to be within study area.

East:

- Wastewater – 1 no. Highway Surface Sewer (150mm VC) within Knutsford Road. Several Surface Water Sewers within proposed development (150mm/225mm VC).
- Electricity – 1 no. LV cable adjacent to Eastern site boundary. LV and HV (11kV) cables within proposed development at South-East. 1 no. HV (11kV) cable within Western footway of Knutsford Road. Electricity Sub-Station located at South-East of proposed development.
- Gas – 1 no. 2" LP PE adjacent to Eastern site boundary.
- Potable Water – doesn't appear to be within study area.

South:

- Electricity – 1 no. HV (11kV) within Southern site boundary. LV cables within Southern site boundary at South-West corner. Electricity Sub-Station located at South-West of proposed development.
- Potable Water, Wastewater and Gas apparatus don't appear to be within study area.

West:

- Potable Water – 1 no. Distribution Main (140mm CI/PE) and 1 no. Trunk Main (12" CI) within Eastern footway of Pasture Road.
- Wastewater – 1 no. Highway Surface Sewer (450mm VC) with Eastern footway of Pasture Road. 1 no. Combined Sewer (225mm VC) within Pasture Road.
- Electricity – LV and HV (11kV) cables within proposed development.
- Gas – LP supplies into proposed development (2"/63mm PE).

Potentially Affected Utilities

South:

- Highway Surface Water (150/225mm VC) crossing thorough site. Combined Sewers in the Southern region of site (300/225/150 mm VC). Plot outfalls may be required for the development.
- LV and HV cables within Southern site boundary.

West:

- LV cable supplies.
- LP gas supplies.

Scottish Power Energy Network (SPEN) Budget Estimate

Moreton Family Centre

- The findings of the SPEN study indicate that the site will require 480kVA, with the existing LV network unable to accommodate this. Thus, the site will require 1x HV Y-type substation, an extension of the LV main and 60x LV services. LV disconnection is also required.
- The approximate cost for the full works is estimated at £220,000

Pasture Road

- The findings of the SPEN study indicate that the site will require 304kVA, with the existing LV network unable to accommodate this. Thus, the site will Require 1x HV Y-type substation, an extension of the LV Main and 38x LV services.
- The approximate cost for the full works is estimated at £170,000
- It should be noted that, currently there is a HV substation on-site. This is assumed to remain since it will feed the site. However, if it is to be relocated, this could incur an additional cost of £100,000.

Knutsford Road

- The findings of the SPEN study indicate that the site will require 64kVA, with the existing LV network able to accommodate such requirements.
- The site will require an extension of a LV Main and 8x LV services. In addition to this, 1x HV cable and 1x LV cable require diversion.

Site Visit Photos

- The approximate cost for the full works is estimated at £16,000.

Total cost of works for all sites: ~£406,000 - £506,000

Source: Mott MacDonald

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, several utility apparatuses appear to encroach upon the proposed development. This should not be considered as being an issue as some of the connections may be required for future use. However, the consideration should be given to the two HV Sub-Station's, located to the South-East and South West of the plot. It may be necessary to incorporate the existing sub-stations within the proposals as they may potentially be required going forwards.

RAG Status of Existing Utility Apparatus		Commentary	*No major issues considered in developing.*

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 12/01/21*	Project Details	Wirral Local Plan Support: Additional Sites Review

Site ref: RES-SA5.3: East of Typhoo, Reeds Lane, Moreton

EXISTING SCENARIO

Area	Site 2068: 4.57ha. Site 1978: 1.28ha. Total: 5.85ha
Location	Land east of Manor Bakeries and Typhoo, adjacent to Reeds Lane.
Proposed land use	Residential. Mixed family houses. Site 2068: 147 units. Site 1978: 42 units. Total: 189 units.

Existing highway network

- The sites are located to the west of Reeds Lane, either side of an unnamed road which provides access to the Premier Foods employment site. The access road forms a priority junction with Reeds Lane.
- There are large, existing residential areas to the north and south which are accessed via Birket Avenue and Kingsmead Drive respectively.
- Reeds Lane is a two-way, single carriageway road with a speed limit of 30mph and footpaths on both sides. A right-turn lane is present for traffic from the north turning into the Premier Foods site.
- Within the last 5 years, there have been two slight PIAs recorded on Reeds Lane at the junction with Reedville Grove. There have been three slight PIAs recorded on Reeds Lane at the junction with Birket Avenue, as well as one serious and two slight PIAs on Birket Avenue itself.

Vehicular access

- Existing access to the sites is via the unnamed private road which currently provides access to Premier Foods.
- There are no other access points directly into the sites from Reeds Lane.

Walking / Cycling connectivity

- Pedestrian footways are present on both sides of Reeds Lane, with the western side being separated from the carriageway by a linear green space, providing a buffer between vehicles and pedestrians.
- There is a pedestrian refuge island on Reeds Lane, approximately 25m north of the Premier Foods junction, allowing pedestrians to cross the road in two stages.
- This pedestrian refuge island connects two sections of the Wirral Circular Trail, a footpath and cycle path which runs east-west and is located to the north of the site.
- A cycle path is provided along the footpath along Reeds Lane, however, this is only present between the Wirral Circular Path access points and has a length of approximately 50m.

Public Transport connectivity

- The nearest bus stops are located on Reeds Lane. Northbound, there is a stop located 100m north of the Premier Foods junction as well as one located 150m to the south. Southbound, there is a stop located opposite the junction however pedestrians must walk to the pedestrian refuge island to safely cross the road.
- These stops all feature a bus shelter, however, only the stop located 150m south of the Premier Foods junction features a bus bay.
- The bus stops along Reeds Lane provide access to Moreton hourly, with New Brighton, Seacombe (Ferry), Woodside (Ferry), and Liverpool accessible at half hourly intervals from Monday – Sunday.
- Several school bus services stop along Reeds Lane.
- Leasowe Station, on the Wirral Line of Merseyrail is located around 340m to the south of the Premier Foods junction. It has regular service every 15 minutes between Liverpool and West Kirkby. This station is wheelchair and pram accessible, with parking and cycle racks.

PROPOSED SCENARIO

Proposed development and network impact

- The site layout for site 2068 suggests 147 units (14 x 2 bed houses; 74 x 3 bed houses; 59 x 4 bed houses) with 280 parking spaces.
- The site layout for site 1978 suggests 42 units (4 x 2 bed houses; 21 x 3 bed houses; 17 x 4 bed houses) with 80 parking spaces.
- Applying this density to the suburban houses trip rate provides the level of trip generation as shown right, with the trip generations noted the combined totals for both sites 2068 and 1978.
- Parking for the properties is generally suggested in accordance with the Wirral Parking Standards SPD which would suggest a maximum of 287 parking spaces for site 2068, with 80 the maximum number for site 1978, therefore giving a maximum total of 348 spaces across the two sites.
- The sites main access is from the current site access road to the Premier Foods site. A second access point with Reedville Grove would be available in case of emergencies via site 2068.

	Trip rates			*Trip generation (rounded)*		
Time period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.117	0.335	0.452	22	63	85
PM peak (17:00-18:00)	0.452	0.307	0.759	85	58	143

Comments and assumptions

- The site is accessed via the existing Premier Foods junction on Reeds Lane, with new site-specific access from this road. For site 2068, a southern access point is proposed.
- The visibility splays on Reeds Lane are sufficient to accommodate these access points (70m each way based on a 30mph speed limit).
- The two sites could be delivered independent of the other but the access from Reeds Lane would require upgrading to accommodate residential development on either site.

Conclusions and suggested mitigation	GREEN

- The bus stops on Reeds Lane should be upgraded to a category F, with 2 required (one each direction). Contributions towards enhanced bus services may be necessary.
- Whilst the speed on Reeds Lane is 30mph, this may require traffic calming measures as given its straight, wide nature, it is likely to attract faster speeds in reality. This would require review and has therefore not been costed for at this stage.
- It is also suggested that a controlled crossing is provided on Reeds Lane to facilitate access to the bus stops.
- The site would be primarily accessed via the currently-private road. The junction at Reeds Lane would require upgrading to better suit the residential nature of the new development. Consideration would be required to ensure that HGVs would still be able to access the industrial estate.
- A second access point would be proposed to the south of the development, allowing access to Reedville Grove in case of emergencies.

Cost summary for 2068 & 1978 (duplicated with site 0407)

- 2 x bus stop upgrades on Reeds Lane (Category F)
- 1 x pelican crossing on Reeds Lane
- Upgrade of existing access point junction
- Total (including mark ups) = £177,026

	Prepared by: J Vickers Strutt	*Checked by: C. Sherratt*	*Approved by: D Crockett*	*Date:* 18/10/2019	*413660 – Wirral Urban Brownfield Site Residential Potential Assessment – Stage 2, Transportation*

Site ref: RES-SA5.3: East of Typhoo, Reeds Lane, Moreton

EXISTING SCENARIO

Location	East of Typhoo
Proposed land use	Residential – mixed family houses

Existing Utility Apparatus

East:
- LV, 11kV Cables within Western footpath of Reeds Lane.

South:
- Highway Sewer (900mm) spans across train line and enters site at Southern boundary, adjacent to residential properties. Pipe exits site at Premier Foods access road and subsequently discharges into The Birket.

West:
- Combined Sewer (225mm, 300mm) spans from Premier Foods to Reedville Grove.

Potentially Affected Utilities

South:
- Highway Sewer (900mm)

RAG Status of Existing Utility Apparatus:		Commentary:	Layout of proposed development will need to be amended to accommodate existing 900mm Highway Sewer. Site within vicinity of methane collection apparatus of the landfill site. Construction for proposed development may be constrained due to this.

PROPOSED SCENARIO

Proposed utilities demand calculations

Electric: 705kVA. Electric load estimation:
- Houses with gas heating and no EV – 2kW per a house (estimated from SPEN). 147 houses on site
- EV estimated as 3kW (SPEN EV Handbook). Estimated that 1 EV charger per a house and/or 50% of apartment parking.

Gas:
- Total gas input for the whole site is estimated at 1,725,324 kWh/annum
- Estimated gas peak input of 980 kW
- It is assumed that all apartments have no gas and are therefore electrically heated

Water:
- Annual water consumption for the whole site is estimated to be 29,582 m^3/annum
- Peak flow rate for the entire site is estimated to be 11.26 l/s

Commentary on available capacity and high-level budget costs estimates for upgrades (as required)

Electric:
Initial contact has been made with SPEN to discuss the proposed site. 2 x new sub-station needed for site. Approximate cost for installation £100k.

Gas:
Initial contact with Cadent, suggests no issues with capacity for the sites. Further information is not available free of charge.

Water:
Initial contact with United Utilities (UU), suggests no issues with capacity for the sites. The total budget cost estimate from UU for this site is £140,976

Development Masterplan:

Source: OPEN

Prepared by: J. Joinson	*Checked by: J. Ingram*	*Approved by: C. Sherratt*	*Date: 13.12.2019*

Site ref: RES-SA5.4 – Former Foxfield School, Moreton

SITE

Area	1.44ha
Location	Former Foxfield School site, Douglas Drive, Moreton, Wirral
Proposed land use	Residential – 69 dwellings

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The former school site is currently overgrown and closed off to the public by fencing on all side
- There is a level difference across the southern portion of the site, being raised compared to adjacent areas
- Site is bound by Douglas Drive, Neva Avenue, Hoylake Road and Ely Avenue, which are predominantly residential. Moreton local centre is situated along Hoylake Road to the east
- Douglas Drive/Ely Avenue are 20mph, with waiting restrictions associated with the former school (no stopping, keep clear lines)
- The A553 Hoylake Road forms the local distributor road, connecting Hoylake to the west with North Birkenhead to the east. It runs a 30mph single carriageway alongside the site, increasing to 40mph approximately 800m to the west
- On-street parking along each highway which bounds the site
- Street lighting is also provided along all four adjacent roads
- Parking restrictions as noted as H-bars only, with the exception of yellow 'School Keep Clear' markings across one of the previous school access points into the site. No further TROs are noted around the site
- A 5-year Road Traffic Collision (RTC) analysis (2015-2019) shows only one slight recorded incident in immediate proximity to the site at the Hoylake Road/ Ely Avenue junction. A cluster of 4 slight incidents is noted at the Hoylake Road/ Borrowdale Road junction approximately 250m east of the site. A cluster of 2 serious and 2 slight incidents are also noted approximately 100m to the north-west but do not occur on any of the roads bordering the site. No incident clusters involving vulnerable road users is noted. It is thus concluded that there are no significant road safety issues in immediate proximity to the site
- One comment has noted on the Wirral Liveable Streets website at the proposed site: (link)
    - *"Road used as cut through - heavy traffic, cars speeding" (referring to Douglas Drive)*

Vehicular access

- There is currently a total of 5 gated vehicular access points to the site, 4 of which provide access from Douglas Drive on the northern edge, while an additional access is noted on Ely Avenue on the western edge.
- There is no access from the south or east as the site is bounded by terraced residential housing
- All 5 access points benefit from good visibility

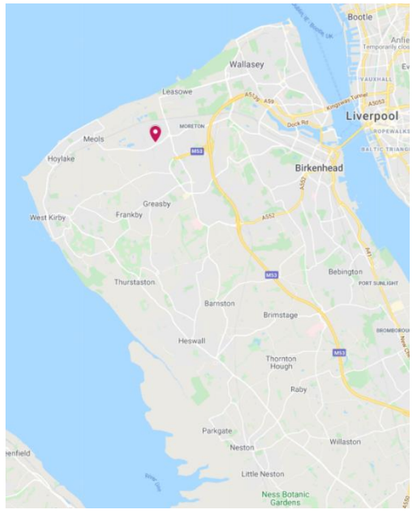
Walking / Cycling connectivity

- Wide footways and tactile paving/dropped kerbs are provided at former access junctions to the site itself, creating an adequate walking environment.
- All 4 bordering roads benefit from pavements on both side with a minimum width provision not dropping below 2 meters.
- Street lighting is also provided along all four adjacent roads.
- Tactile paving is provided across all 5 existing site access points.
- A signal-controlled pedestrian crossing is located approximately 50 meters to the west of the site across Hoylake Road.
- Tactile paving is not provided at crossing points along Hoylake Road other than at the signal-controlled crossing.
- There is not segregated cycle lane infrastructure present around the site.
- It is noted that the Arrowe Park Hospital to Moreton LCWIP corridor runs north-south along the A551 approximately 600 meters to the east of the site.
- There is currently no public cycle parking available around the site.
- Terraced housing presents immediate barriers for walking and cycling to the north/west but require only a short detour via Hoylake Road onto Bermuda Road to circumnavigate.

Public Transport connectivity

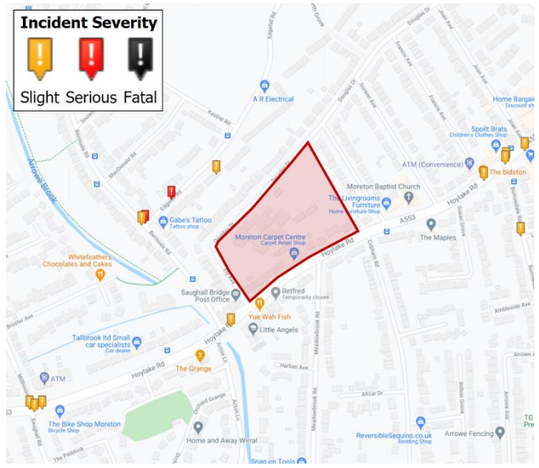
- There are a number of bus stops along Hoylake Road to the south of the site which provide direct pavement access to the following services:
    - 38A, 38 Gold: St. Helens Bus Station – Rainford
    - 407: Liverpool (Cook Street) – West Kirby Station
    - 423: Liverpool – Seacombe Ferry Terminal
    - 614, 628, 633, 655, 656 & 703: Dedicated school/ College routes

Location



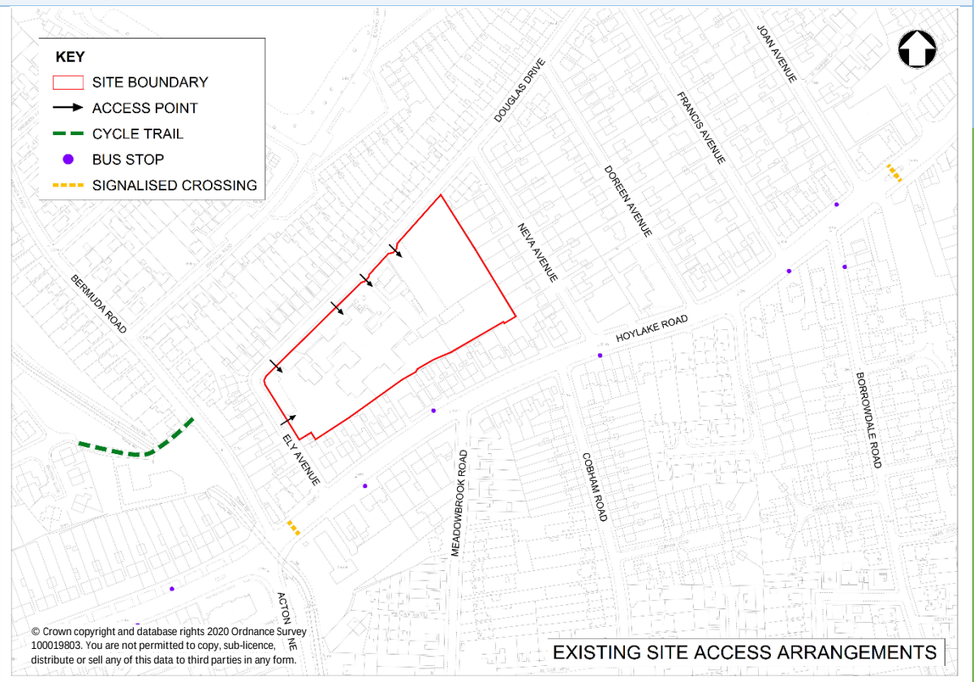
Source: *Google Maps*

5-Year Road Traffic Collision Analysis



Source: *CrashMap*

Site Plan *(transport)*



Source: Wirral Growth Company/ Mott MacDonald

- The two most immediate bus stops also offer shelter and seating facilities.
- The nearest rail station is Moreton, located approximately 20 minutes' walk from the site and is served by the Liverpool Central – West Kirby Merseyrail line at a frequency of 2 trains per hour per direction. The station offers 34 parking spaces as well as secure cycle parking at a capacity of 20 bikes. The station is wheelchair accessible. The most direct route to the station benefits from pavements along the entirety of the route.

RAG Status of Existing Transport Scenario		Commentary	No significant issues were noted at this site. Site appears well suited for residential uses.

PROPOSED SCENARIO

Proposed development and network impact

- The emerging masterplan demonstrates that the site has the potential to accommodate in the region of 69 homes. This includes a mix of 2, 3- and 4-bedroom family and affordable terraced and semi-detached properties, ranging from 2-2.5 storeys in height. The current masterplan proposes the following dwelling quanta:
  - 2-bedroom: 14
  - 3-bedroom: 34
  - 4-bedroom: 21
- Applying this density of 69 units to trip rate factors generated within the TRICS database, indicates the likely AM and PM peak trip generation shown to the right
- This trip generation anticipated to be incurred by the development is not expected to have a material impact on the operation of the surrounding road network. However, trip generation analysis should be revisited during compilation of a Transport Assessment for the site, and explored in-depth.

Trip Generation Analysis

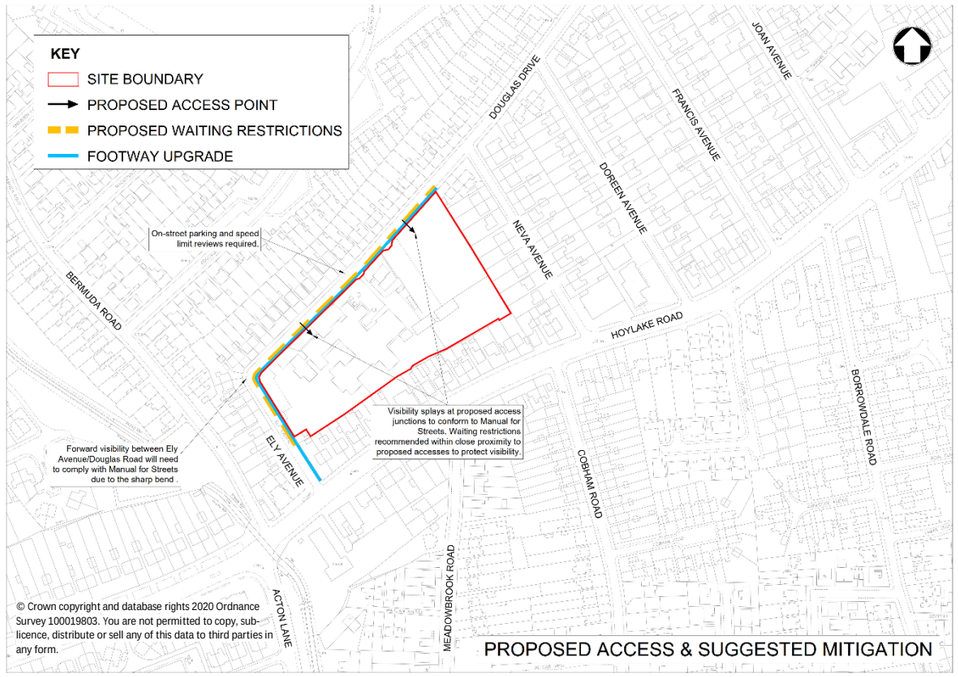
	Trip Rates* *(per dwelling)*			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.138	0.385	0.523	10	27	36
PM peak (17:00-18:00)	0.363	0.175	0.538	25	12	37

**Trip rates derived from TRICS surveys for land use: 'Residential – Private*

Comments and assumptions

- A total of 80 off-street parking spaces is proposed within the development masterplan at an average rate of 1.16 parking spaces per dwelling
- Parking and cycling provision will need to conform with the new parking standards in the Local Plan.
- As such, the development parking proposal satisfies council requirements, providing 62% of the maximum permittable supply

Site Mitigation Plan



Source: Mott MacDonald

Conclusions and suggested mitigation

Summary of issues:

- No significant issues were noted at this site

Recommendations:

- As Douglas Drive and Ely Avenue are ~5.5m wide, waiting restrictions adjacent to the site are recommended to allow traffic to pass and protect visibility splays at the site access junctions.
- Forward visibility at the junction between Ely Avenue/Douglas Road will need to conform with Manual for Streets standards, due to the sharp bend.
- Visibility splays at the proposed site access junctions will also need to conform with Manual for Streets.
- Footways adjacent to the site and along Ely Avenue to Hoylake Road should be upgraded to improve pedestrian connection to local facilities, and to make good redundant access points.
- Review of parking provision is required to clearly identify requirement for off-street parking to mitigate on-street parking overspill onto the surrounding residential streets (current proposal is only for 62% of permittable provision)
- May need to review speed and volume of through traffic along Douglas Drive following comment on Wirral Liveable Streets website (link). Could warrant traffic calming measures

Cost estimate for off-site works for site ref: 1827:

- Waiting restrictions: £10,000
- Upgrade footways adjacent to the site: £50,000
- Make good redundant accesses: £10,000

Prepared by: Daniel Blakey	Checked by: James McManus	Approved by: Duncan Crockett	Date: 12/01/21	Project Details	Wirral Local Plan Support: Additional sites review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus			
North: • Utility apparatus doesn't appear to be within study area. East: • Utility apparatus doesn't appear to be within study area. South • Utility apparatus doesn't appear to be within study area. West • Electricity - 1 no. HV (11kV) and 1 no. LV cables enter site at Western boundary and feed into substation in South-West corner. • Potable Water, Wastewater or Gas apparatus don't appear to be within study area.			
Potentially Affected Utilities			
None.			
Scottish Power Energy Network Budget Estimate			
• The findings of the SPEN study indicate that the site will require 552kVA, with the existing LV network unable to accommodate this. Thus, the site will require 2x HV X-type substation, an extension of the LV main and 69x LV services. LV reinforcement is also required to facilitate connection. • The approximate cost for the full works is estimated at £320,000			
Conclusions and suggested mitigation			
This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas. Based on the information obtained, only one minor diversion needed to progress with proposed works. The presence of an Electricity Sub-Station at the South-West corner will need to be accommodated as the development is considered further.			
RAG Status of Existing Utility Apparatus		Commentary	*No diversions identified.*
Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 12/10/21*

Site Visit Photographs

Description: Douglas Drive (east facing), Ely Avenue (south facing)
Source: Mott MacDonald

Project Details	Wirral Local Plan Support: Additional sites review

Site ref: RES-SA6.4 - Grange Hill Farm, West Kirby, Wirral

SITE

Area	1.12ha
Location	Grange Old Road, West Kirby, Wirral
Proposed land use	C3 Residential

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The proposal is for the development of approximately 50 dwellings on land north of Grange Old Road which currently consists of 1.12ha of greenfield land associated with Grange Hill Farm.
- The sites only point of access is via Grange Old Road, which runs to the south of the site. It is bounded by two dwellings; Maddrell to the immediate south, and Grange Hill to the south west. Grange Hill Farm itself is situated to the west of the site, and the Hoylake and West Kirby War Memorial is situated immediately north west. Grange Hill Allotments bounds the site to the east.
- Grange Old Road is a quiet, residential through road, adopting a 30mph speed limit. The road meets the A540 (Hilbre View) to the southwest, and Black Horse Hill (B5139) to the southeast via a priority junction.
- Grange Old Road consists of one lane in each direction with road widths ranging between ~6m and ~9m. Additionally, broken white lines stretch for ~20m at the western entry to Grange Old Road and ~25m at the eastern entry via Black Horse Hill.
- Old Grange Road also exhibits relatively poor provision of street lighting; with just three lights along the 150m long road, and no lighting provided on the sharp bend adjacent the site. Double yellow lines are provided for ~15m on both sides of the road upon entering via Black Horse Hill.
- It is important to highlight when access point of Grange Old Road meets a 4-arm priority junction which adopts an irregular layout which includes a pedestrian crossing island and a central reservation allowing vehicles to turn into the other lane.
- The A540 (Hilbre View) forms part of Wirral's Strategic Road Network. It connects a number of settlements along the west coast of the borough, from Hoylake in the north, to Gayton in the south. On a wider scale, the road extends as far as Chester City Centre. Within the immediate vicinity of the site the A540 runs at 30mph, with one lane in each direction and good provision of street lighting. Further west, broken white lines become double solid white lines as the road reduces to just 6m wide due to the limited the capacity for vehicles to cross or straddle unless the other side of the road is clear. Between the site and Orrysdale Road, the A540's topography sees a significant 40m drop. ~1.5km west of the site the speed limit increases from 30mph to 40mph.
- Black Horse Hill (B5139) is another key local distributor road within Wirral's local network; providing a key strategic link between West Kirby to the east, and settlements further west such as Greasby and Upton. Travelling west, the B5139 adopts a 30mph speed limit, with one lane in each direction; the road also sees a 30m drop over a distance of 550m, before meeting Frankby Road at a sudden 90°.
- The B5139 is well-lit over this 550m stretch, yet a number of other bends occur in the road as it narrows to ~6m in stages. As a result, a number traffic regulations are in place such as double solid white lines and diagonal hatchings to allow vehicles to safely enter adjacent properties.
- The nearest convenience store to the site (Premier) is located ~800m west of the site. Two superstores (Aldi and Morrison's) are situated ~1km west of the site.
- A 5-year Road Traffic Collision (RTC) analysis (2016-2020) shows a cluster of four slight incidents (one involving a cyclist) recorded in immediate proximity to the site; all occurring at the Black Horse Hill / Grange Old Road / Hilbre View junction. Four incidents have been recorded in this cluster, equating to less than 1 incident per year. Further afield, a serious incident took place ~50m west of Grange Old Road involving a singular vehicle and a serious collision took place ~100m south along the A540 involving 2 vehicles. With this information in mind, it is thus concluded that there are no significant road safety issues in immediate proximity to the site.

Vehicular access

- The site can only be accessed via Grange Old Road; a two-way, quiet, residential road. The existing access for Grange Hill Farm would not be a suitable point of access for a development of this size due to poor visibility. Therefore a new access will need to be created utilising the garden space of the property. Adequate visibility could be provided if this position is used for access.

Walking / Cycling connectivity

- Route 89 of the NCN is located 500m west of the site (Wirral Circular Trail); however accessing this route requires cycling down Grange Road which is only recommended as a route for 'Level 3' cyclists as per the Wirral Cycle Map. On-road cycle lanes are provided along Column Road (A540) under 200m east of the site.

Location

Source: Google Maps

5-Year Accident Analysis

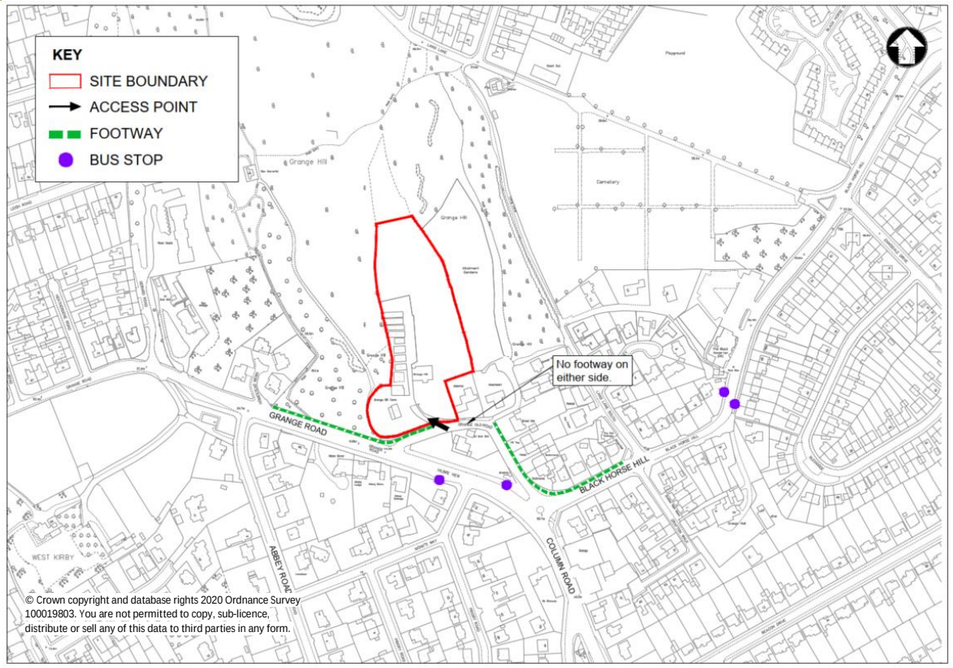
Source: CrashMap

Site Plan

- The Wirral Liveable Streets Commonplace map contains a comment ~300m west of the site. It is worth noting 18 people have agreed with the comment too. The comment states:
  - *"The road is plenty wide enough to provide a cycle lane going up the hill to protect cyclists. All that is needed is to change the lane markings which at present have a space in the middle separating the two car lanes. Thanks" (referring to Hilbre View)*
- With regard to walking, limited infrastructure is provided within the immediate vicinity of the site. Looking east, no paving is provided on the righthand side of Grange Old Road. Additionally, no paving is provided on the left-hand side of the road for ~10m west of the possible site access, and 40m east. Where pavement is provided along Grange Old Road the paving width is ~1.5 to the west of the site and 2m to the east. To the west of the site, overgrown vegetation limits paving provision further.
- Walking provision improves along the A540, with pavement widths varying between 2m and 4m. However, there is an absence of dropped kerbs and tactile paving on the approach to West Kirby town centre (opposite Gerard Road, Ashburton Road). Another potential hazard is the considerably wide junction radii at Gerard Road and Homestead Mews (12m and 15m respectively). This risks intimidating pedestrians and lowering driver awareness of pedestrians, whilst encouraging vehicles to turn into and out of the site at higher speeds.
- Similar walking provision is provided along the B5139, with paving widths of ~2m and dropped kerbs being provided at all crossing points except for Ennisdale Drive. The junction radii at Lang Lane South also poses another possible risk at 12m.
- The only location with tactile paving is provided is at the junctions between where Grange Old Road meets the B5139, and the A540 and B5139 meet one another.
- In addition, a series of public right of way footpaths connect the roads north (Lang Lane) and south (Hilbre View, Grange Old Road and Lang Lane South) of Grange Hill. These public rights of way weave around Grange Hill Allotments and the Hoylake and West Kirby War Memorial.

Public Transport connectivity

- There is a relatively robust provision of bus services within the immediate vicinity of the site; with a number of bus stops located in within 700m of the site, consisting of;
  - Hilbre View (Monk's Way) - 100m from site access points;
    - *80 - West Kirby Circular - 1 service per 2 hours*
    - *81 - West Kirby-Arrowe Park Circular - 1 service per hour*
    - *82 - West Kirby-Calday Circular - 1 service per 2 hours*
    - *Dedicated School Bus Services; 614, 621, 670, 671, 672, 673, 674 & 703 - serving West Kirby Grammar School and Calday Grammar*
  - Greenbank Road (Gresford Avenue)- ~640m from site via public right of way footpath across Grange Hill;
    - *22 - West Kirby-Chester - 1 service per hour*
    - *420 - West Kirby-Liverpool via M53 - 1 service every morning*
    - *437 - West Kirby-Liverpool - 6 services per hour (every 10 minutes)*
    - *Dedicated School Bus Services; 628, 629, 632, 684 & 703 - serving West Kirby Grammar School, Hilbre High School, Our Lady of Pity and Pensby High School*
- West Kirby is the closest railway station to the site, situated ~850m to the west. It sits on the Wirral Line of the Merseyrail network and is accessible via the A540. Services from West Kirby include:
  - Liverpool Central: 3 service per hour



Source: Mott MacDonald

RAG Status of Existing Transport Scenario		Commentary	No major issues are noted at the site.

PROPOSED SCENARIOIO

Proposed development and network impact

- The site has been identified for the development of ~50 C3 residential units.
- Applying this to trip rate factors, generated within the TRICS database, indicates the likely AM and PM peak trip generation shown in the adjacent table. It is envisaged that the development will not generate substantial volumes of traffic. However, due to the absence of street lighting and poor paving provision, the development may have an adverse impact on pedestrian safety and the operation of the immediate road network if the highway network is not adapted. This should be explored in depth prior to the development of the site.

Trip Generation Analysis

	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.138	0.385	0.523	7	19	26
PM peak (17:00-18:00)	0.363	0.175	0.538	18	9	27

Comments and assumptions

- Vehicular and cycle parking for the development should be provided in accordance with the new Local Plan..
- Sufficient on-site car parking is needed to avoid overspill onto Grange Old Road.

Proposed Site Access Arrangement Plan

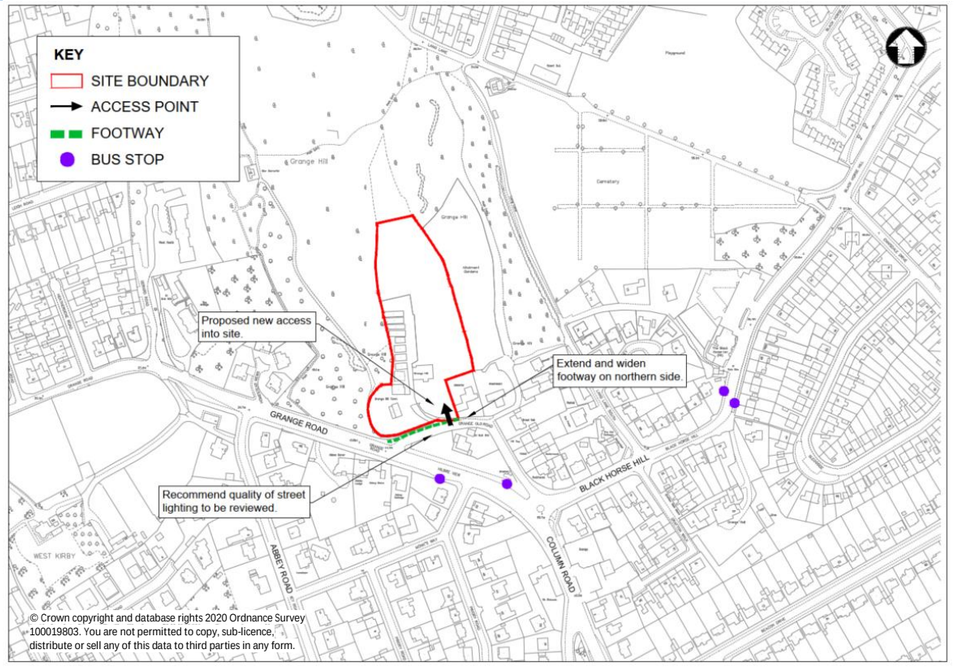
- There is no footpath on either side of Grange Old Road adjacent to the proposed development. The footpath to the west of site is just ~1.5m wide; in this location Grange Old Road exceeds 7m wide, presenting the opportunity to widen this footpath by up to ~1m.
- The provision and quality of street lighting along Grange Old Road should be reviewed to help promote road safety.
- It is also believed the site will most suitably be accessed via a new access point which utilises front garden space and land immediately east of the 'Grange Hill' dwelling. By positioning this entry sufficient distance (~4m) to the west of the 'Maddrell' dwelling and its hedgerows the ensure maximum visibility splays on the approach to Grange Old Road, enhancing vehicular and pedestrian safety. The existing site access should be closed and appropriate footways provided. This should be revisited during compilation of a Transport Assessment for the site, and explored in-depth.

Conclusions and suggested mitigation

- Where possible a footway (ideally 2.0m minimum) should be provided on the northern side of Grange Old Road to improve existing provision and plug gaps where there is no provision;
- An allowance should be made to upgrade street lighting along Grange Old Road; and
- The existing site access should be closed and a new arrangement provided approximately mid-way along the site frontage with Grange Old Road.

Budget cost summary for Grange Hill Farm:

- Footway widening: £15,000 - £20,000
- Upgrade of street lighting: £10,000 - £15,000
- New site access: £15,000 - £30,000



Source: Mott MacDonald

Prepared by: C Burns	*Checked by: J McManus*	*Approved by: D. Crockett*	*Date: 07/05/21*	Project Details	Wirral Local Plan Support: Additional Sites Review

Site ref: RES-RA2.1 Scotts Quay – Land East of Birkenhead Road (North)

SITE

Area	1.9ha
Location	Birkenhead Road
Proposed land use	Residential – 400 dwellings

TRANSPORT

EXISTING SCENARIO

Existing highway network

- Currently, the site is occupied by a mix of light industrial units.
- The site is bound by, and accessed via, Birkenhead Road to the northwest. East Street bounds the site to the east of the site. To the south of the site is another industrial site marked for possible development as a Local Plan site.
- Birkenhead Road is a 30-mph single carriageway road. There are currently some on-street parking bays on Birkenhead Road.
- Tower Road, to the south-west of the site, is currently a 30mph road, but a new 20mph speed limit is proposed south of the roundabout with Birkenhead Road and Dock Road.
- Gradient across the site is flat.
- East Street, to the east of the proposed development site, does not have footways along the western side; instead the space is used as parking for cars and trucks.
- Local shops and amenities are located around 3km to the northwest in Liscard. The site is close to the A5129 Dock Road which provides access to the M53 motorway and A59 Kingsway Tunnel to Liverpool. The M53 provides access to the southern parts of the Wirral, Ellesmere Port and Chester.
- 5-year Road Traffic Collision (RTC) analysis from 2017 to 2021 shows one incident in the immediate vicinity of the site. Along Birkenhead Road, to the northwest of the site, 1 serious was recorded. There were also two slight incidents recorded further south long Birkenhead Road, plus one to the north west on Wheatland Lane and to the east on the industrial estate.
- One comment has been noted on the Wirral Liveable Streets website regarding Birkenhead Road:
    - Regarding the shared use path on Birkenhead Road: "*The shared use path along here could be improved by giving cyclists and walkers priority at junctions (path crossed by a lot of little used side streets) and sorting out the tree/bench/bus stop combination that blocks the path.*"

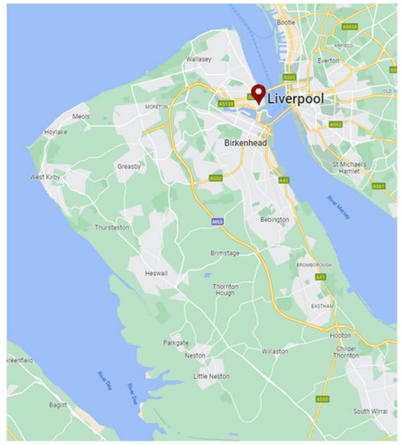
Vehicular access

- The existing site can be accessed via Birkenhead Road and East Street.
- The access points on Birkenhead Road benefit from good visibility.

Walking / Cycling connectivity

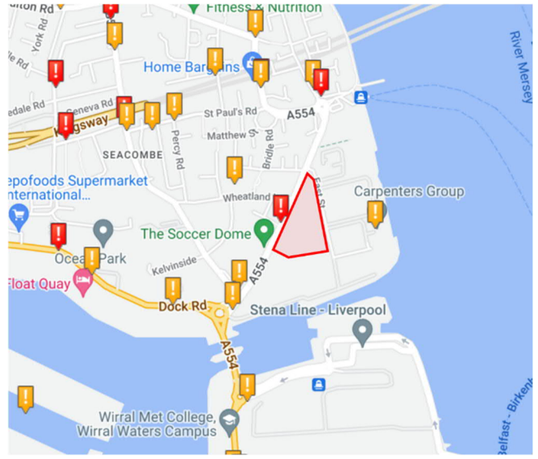
- All footpaths in the vicinity of the site benefit from adequate lighting. However, on East Street, to the east of the proposed development site, only has footway on the eastern side of the road. The footway is intermittent and there is no footway on the western side of the road. Instead this is used as parking space. Also, dropped crossings are lacking at road and access crossing points.

Location



Source: Google Maps

5-Year Accident Analysis



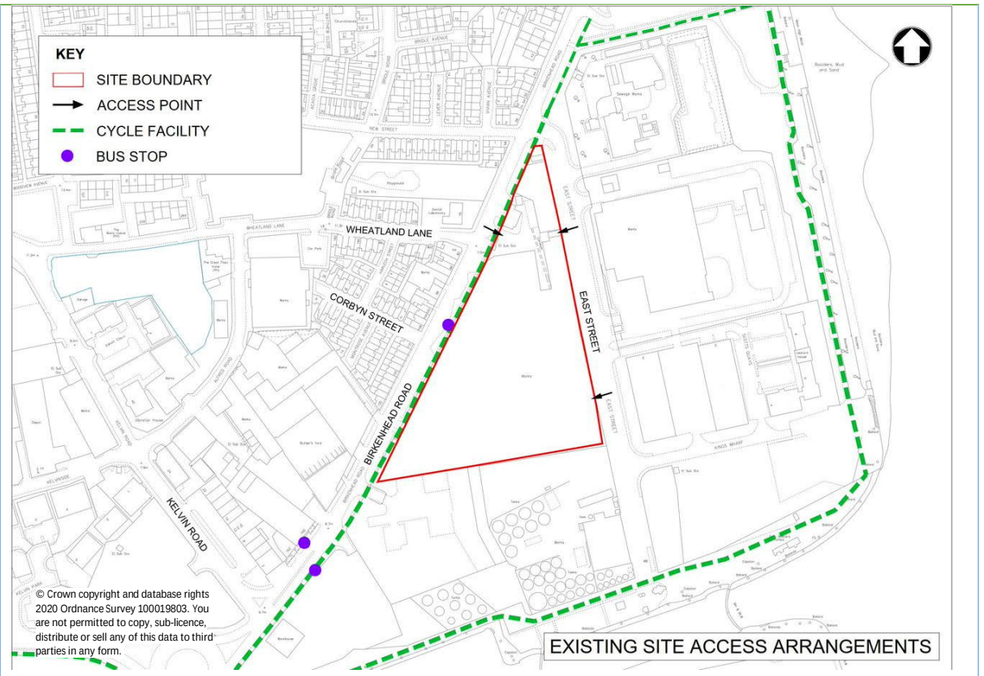
Source: CrashMap

Site Plan *(transport)*

TRANSPORT

EXISTING SCENARIO

- On the south-eastern side of Birkenhead Road, there is an off-road cycle way from the roundabout with Church Road/Victoria Place to the north of the development site, to just south of the roundabout with Dock Road to the west of the site. A segregated cycleway/footway continues on the southern side of Dock Road, west of the roundabout.
- The condition of the footway and cycleway on the eastern side of Birkenhead Road is broadly good, although a small number of trees do interrupt the route and have caused some damage to the surfacing.
- Note, however, the cycle facility and walk route along Birkenhead Road is programmed to be improved during 2022 / 23. The improvement will provide a fully segregated two-way cycle route between the Seacombe promenade and Dock Road, plus a widened footway. To enable the facility, all on-street parking along the east side of Birkenhead Road will be removed. Also included in the scheme is providing priority for cyclists and walkers across all access points by raising the road level. The proposals for this route will need to carefully considered when developing the access strategy for the possible development site.
- Along the southern perimeter of the proposed development site, there is an off-road walking/cycle route, which forms part of the Wirral Circular Trail. It provides direct access along the river front, north to New Brighton. Part of this route is the National Cycle Network Route 56.



Source: Mott MacDonald

Public Transport connectivity

- Conway Park is the closest rail station to the development site, and lies 1,600m south of the proposed development site. It is served by the West Kirby and New Brighton branches of the Wirral Line. From the site, it is accessed via Tower Road, Park Street and Price Street. The station provides services to:
  - West Kirby – 3 services per hour
  - Liverpool Central – 6 services per hour
  - New Brighton – 3 services per hour
- Bus stops are located on Birkenhead Road, adjacent to the proposed development site (a 1-minute walk), and provide access to the following services:
  - 409: Wallasey to Woodside/Birkenhead
  - 411: New Brighton - Woodside
- Seacombe Ferry Terminal is located around 600m (7 minute walk) to the north-east of the proposed development site. It is currently closed for refurbishment but is expected to re-open in Autumn 2022.

RAG Status of Existing Transport Scenario		Commentary	No major issues were noted at the site.

PROPOSED SCENARIO

Proposed development and network impact

- The site has been identified for residential use (use class C3). The site has a capacity of approximately 400 dwellings.
- Based on these assumptions, applying this density of 400 units to trip rate factors generated by the TRICS database, indicates the likely AM and PM peak trip generation shown in the adjacent table.
- Trip generation analysis should be revisited and explored in-depth upon compilation of the Transport Assessment for the proposed development.

Trip Generation Analysis

	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.138	0.385	0.523	55	154	209
PM peak (17:00-18:00)	0.363	0.175	0.538	145	70	215

TRANSPORT

PROPOSED SCENARIO

Comments and assumptions

- It is noted that low density housing should integrate with the surrounding residential developments.
- Parking provision needs to be provided in line with the Car Parking Standards in the Draft Local Plan.
- A Transport Impact assessment will be required for the site – the scope and method of which will need to be agreed with Wirral Borough Council.
- A Construction Management Plan be required for the site.

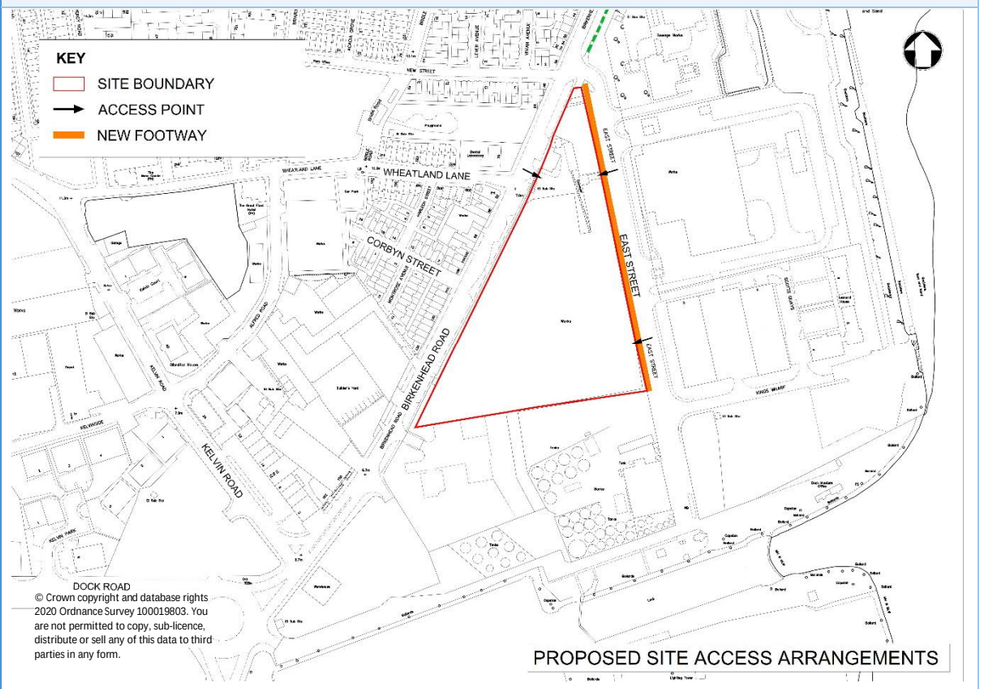
Conclusions and suggested mitigation

- Vehicular access should be from Birkenhead Road on the western side of the site. East Street to the east of the site may offer possibilities for a vehicular access, but it is actively used by large HGV's serving industrial units along its length. The road is also very wide, and extensively used for parking by employees of the industrial units.
- A visibility splay is required at the site access junction on Birkenhead Road to ensure it complies with Manual for Street standards.
- The parking bays on Birkenhead Road will be removed and be replaced by an upgraded, segregated cycle path and footway as part of the LCWIP.
- A footway to adoptable standard should be created on the western side of East Street along the site extents, compliant with DDA legislation.
- Contribution to the upgrade to cycling and walking facilities in the local area to improve access by active modes.

Cost estimate for off-site works for site ref: RES-RA2.1 Scotts Quay:

- New footway along East Street: £150,000
- Improvements to active travel facilities in the local area: £50,000
- Site accesses: TBD as development plans are prepared

Proposed Site Access Arrangement Plan



Source: Mott MacDonald

Prepared by: Hannah Smith	Checked by: *Duncan Crockett*	*Approved by: Duncan Crockett*	*Date: 12/04/2022*	Project Details	Wirral Local Plan Support: Additional sites review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

- Electricity – Based upon the information received, utility apparatus does not appear to be within the site boundary
- Gas – 400mm PE Cadent LP main
- Potable Water - Based upon the information received, utility apparatus does not appear to be within the site boundary
- Waste Water - Based upon the information received, utility apparatus does not appear to be within the site boundary
- Telecoms – BT Openreach overhead and underground cable(s)/duct(s), Virgin Media cabinet and duct(s) near site boundary on Birkenhead Road

Potentially Affected Utilities

- Cadent 400mm PE LP Main
- BT Openreach overhead and underground cable(s)/duct(s) within site boundary

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, the existing Cadent LP main and BT Openreach underground cable(s)/duct(s) within the site boundary may require diversion or abandonment if the plot is to be developed.

The requirement and financial implications to provide new services for the proposed development including electricity, gas, water and telecoms has not been considered at this stage and it is recommended that this is undertaken by the developer.

Site Visit Photos

Source: Mott MacDonald

RAG Status of Existing Utility Apparatus		Commentary	*Potential diversion or abandonment of gas main and telecoms*

Prepared by: E Bonner	*Checked by: S Alexander*	*Approved by: S Alexander*	*Date: 22/04/22*	Project Details	Wirral Local Plan Support: Additional sites review

Site ref: RES-RA2.2 Scotts Quay – Land East of Birkenhead Road (South)

SITE

Area	1.57 ha
Location	Birkenhead Road
Proposed land use	Residential – 250 dwellings

TRANSPORT

EXISTING SCENARIO

Existing highway network

- Currently, the site is used for industrial purposes with some car parking space within the site's boundary.
- The site is bound by, and accessed via, Birkenhead Road to the northwest. Alfred Dock lies to the south of the site, with a permissive public right of way situated between the development site and the dock, with walking and cycling routes. To the north of the site is another industrial site marked for development as a Local Plan site.
- Beyond the adjacent development site lies East Street, which is currently used for on-street parking although it is not designated as such. There is no footway on the western side of the road. The road also serves a number of industrial sites, including molasses storage tanks which are served by ships in Alfred Dock and articulated tanker HGV's.
- Birkenhead Road is a 30-mph single carriageway road. There are currently some on-street parking bays on Birkenhead Road.
- Tower Road, to the south-west of the site, is currently a 30mph road, but a new 20mph speed limit is proposed south of the roundabout with Birkenhead Road and Dock Road.
- Gradient across the site is flat.
- Local shops and amenities are located around 3km to the northwest in Liscard. The site is close to the A5129 Dock Road which provides access to the M53 motorway and A59 Kingsway Tunnel to Liverpool. The M53 provides access to the southern parts of the Wirral, Ellesmere Port and Chester.
- 5-year Road Traffic Collision (RTC) analysis from 2017 to 2021 shows three incidents in the immediate vicinity of the site. Along Birkenhead Road, to the north of the site, 1 serious and 2 slight incidents were recorded. There were also three slight incidents
- One comment has been noted on the Wirral Liveable Streets website regarding Birkenhead Road:
  - Regarding the shared use path on Birkenhead Road: "*The shared use path along here could be improved by giving cyclists and walkers priority at junctions (path crossed by a lot of little used side streets) and sorting out the tree/bench/bus stop combination that blocks the path.*"

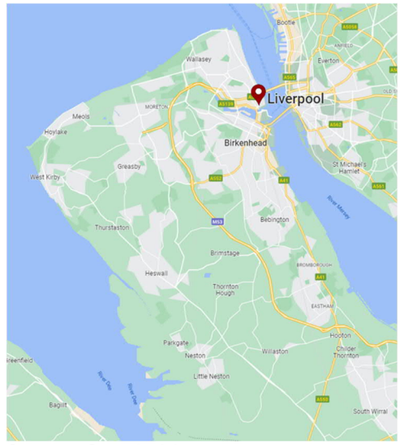
Vehicular access

- The existing site can be accessed via Birkenhead Road. To the south and east are an active port and industrial units.
- Access may be able to be coordinated with the potential development site to the north.

Walking / Cycling connectivity

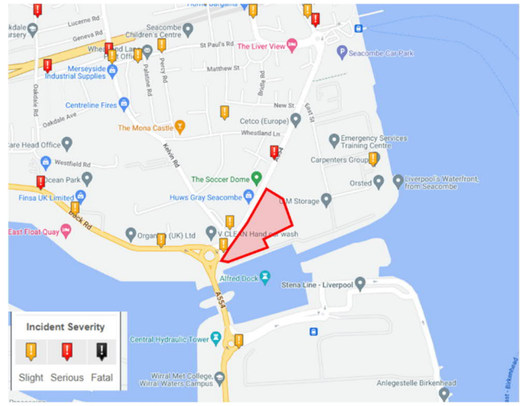
- All footpaths in the vicinity of the site benefit from adequate lighting. However, on East Street, to the east of the proposed development site, only has footway on the eastern side of the road. The footway is intermittent and there is no footway on the western side of the road. Instead this is used as parking space.
- On the eastern side of Birkenhead Road, there is an off-road cycle way from the roundabout with Church Road/Victoria Place to the north of the development site, to just south of the roundabout with Dock Road to the west of the site. A segregated cycleway/footway continues on the southern side of Dock Road, west of the roundabout.

Location



Source: Google Maps

5-Year Accident Analysis



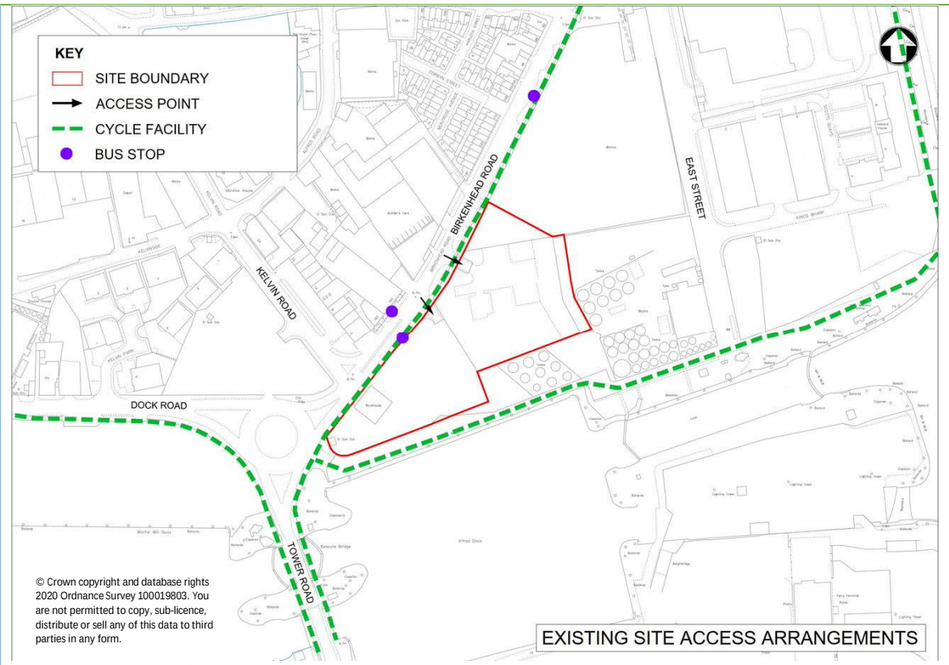
Source: CrashMap

Site Plan *(transport)*

TRANSPORT

EXISTING SCENARIO

- The condition of the footway and cycleway on the eastern side of Birkenhead Road is broadly good, although a small number of trees do interrupt the route and have caused some damage to the surfacing.
- Note, however, the cycle facility and walk route along Birkenhead Road is programmed to be improved during 2022 / 23. The improvement will provide a fully segregated two-way cycle route between the Seacombe promenade and Dock Road, plus a widened footway. To enable the facility, all on-street along the east side of Birkenhead Road will be removed. Also included in the scheme is providing priority for cyclists and walkers across all access points by raising the road level. The proposals for this route will need to carefully considered when developing the access strategy for the possible development site.
- Along the southern perimeter of the proposed development site, there is an off-road walking/cycle route, which forms part of the Wirral Circular Trail. It provides direct access along the river front, north to New Brighton. Part of this route is the National Cycle Network Route 56.



Source: Mott MacDonald

Public Transport connectivity

- Conway Park is the closest rail station to the development site, and lies 1,600m south of the proposed development site. It is served by the West Kirby and New Brighton branches of the Wirral Line. From the site, it is accessed via Tower Road, Park Street and Price Street. The station provides services to:
  - West Kirby – 3 services per hour
  - Liverpool Central – 6 services per hour
  - New Brighton – 3 services per hour
- Bus stops are located on Birkenhead Road, adjacent to the proposed development site (a 1-minute walk), and provide access to the following services:
  - 409: Wallasey to Woodside/Birkenhead
  - 411: New Brighton - Woodside
- Seacombe Ferry Terminal is located around 600m (7 minute walk) to the north-east of the proposed development site. It is currently closed for refurbishment but is expected to re-open in Autumn 2022.

RAG Status of Existing Transport Scenario		Commentary	No major issues were noted at the site.

PROPOSED SCENARIO

Proposed development and network impact

- The site has been identified for residential use (use class C3). The site has a capacity of approximately 250 dwellings.
- Based on these assumptions, applying this density of 250 units to trip rate factors generated by the TRICS database, indicates the likely AM and PM peak trip generation shown in the adjacent table.
- Trip generation analysis should be revisited and explored in-depth upon compilation of the Transport Assessment for the proposed development.

Trip Generation Analysis

	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.138	0.385	0.523	35	96	131
PM peak (17:00-18:00)	0.363	0.175	0.538	91	44	135

TRANSPORT

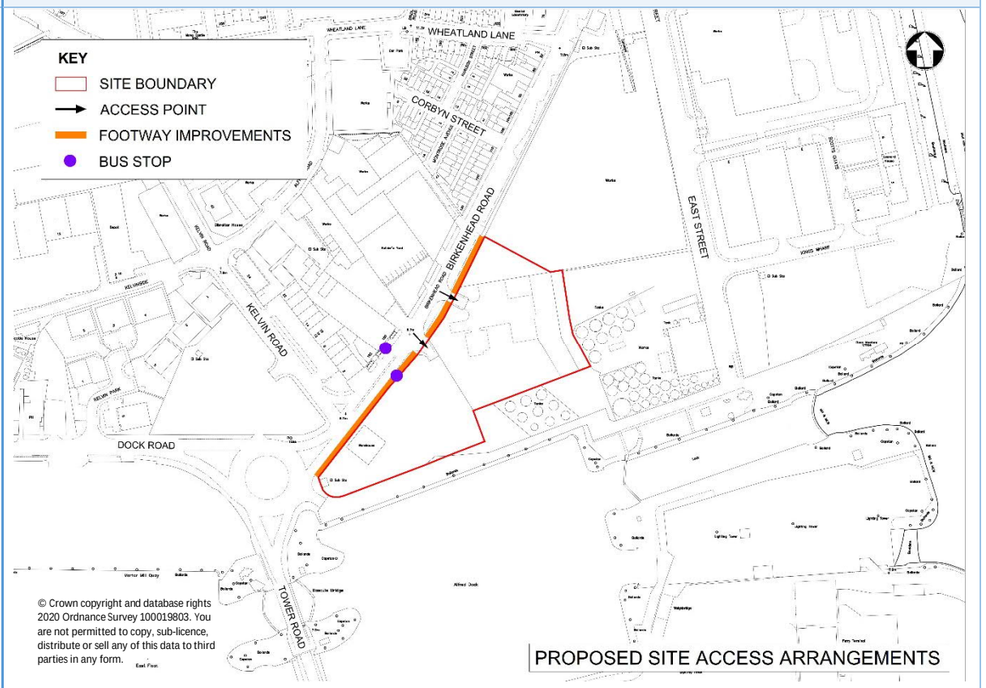
PROPOSED SCENARIO

Comments and assumptions

- It is noted that low density housing should integrate with the surrounding residential developments.
- Parking provision needs to be provided in line with the Car Parking Standards in the Draft Local Plan.
- A Transport Impact assessment will be required for the site – the scope and method of which will need to be agreed with Wirral Borough Council.
- A Construction Management Plan be required for the site.

Conclusions and suggested mitigation

Proposed Site Access Arrangements



- Vehicular access will be from Birkenhead Road on the west side of the site. Note, the southern existing vehicle access into the site is currently used as a manoeuvring area for articulated HGV's to access the builders merchant on the opposite side of the road.
- The existing southern site access was also originally designed for an industrial use and can therefore be significantly rationalised for a residential use. In addition, a telecomms tower has recently been installed on the southern radii of the access which may affect design. As such, it may be preferable for the northern access to the site to be the primary access point, and for the southern access to be closed and used only by pedestrians, cyclists and emergency vehicles.
- Also note, the opposite indoor football facility generates significant demand for on-street parking which may displace into the proposed development site.
- A visibility splay is required at the site access junction on Birkenhead Road to ensure it complies with Manual for Street standards.
- The parking bays on Birkenhead Road will be removed and be replaced by an upgraded, segregated cycle path and footway.
- The two bus stops adjacent to the site on Birkenhead Road should be upgraded in consultation with Merseytravel.
- Contribution to the upgrade to cycling and walking facilities in the local area to improve access by active modes.
- Boundary treatment to the site to the south and east will require careful consideration as they face onto a active dock and industrial area which have 24 hour operations.

Cost estimate for off-site works for site ref: RES-RA2.2 Scotts Quay:

- Upgrade of 2x bus stops on Birkenhead Road: £30,000
- Contribution to improved active travel facilities in the area: £50,000
- Footway and site access improvements: £150,000

Source: Mott MacDonald

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

- Electricity – Based upon the information received, utility apparatus does not appear to be within the site boundary however it is key to note that there is a substation identified on both Google maps and the OS mapping but the asset owner has not been identified. This may require further investigation.
- Gas – Cadent LP main
- Potable Water – Based upon the information received, utility apparatus does not appear to be within the site boundary
- Waste Water – Based upon the information received, utility apparatus does not appear to be within the site boundary
- Telecoms – BT Openreach overhead and underground cable(s)/duct(s)

Potentially Affected Utilities

- Cadent LP main
- BT Openreach cable(s)/duct(s)

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based upon the information obtained, the potentially affected utilities may require diverting or abandoned if the plot is to be developed.

The requirement and financial implications to provide new services for the proposed development including electricity, gas, water and telecoms has not been considered at this stage and it is recommended that this is undertaken by the developer.

RAG Status of Existing Utility Apparatus		Commentary	*Potential diversion or abandonment of utilities and further investigation of the identified substation*

Site Visit Photos

Source: Mott MacDonald

Prepared by: E Bonner	*Checked by: S Alexander*	*Approved by: S Alexander*	*Date: 22/04/22*	Project Details	Wirral Local Plan Support: Additional sites review

Site ref: RES-RA3.4: Former Rose Brae, Church Street, Birkenhead

EXISTING SCENARIO

Area	1.98ha
Location	Currently vacant site adjacent to the Mersey, bounded by Church Street to the west
Proposed land use	Residential – 339 units (61 family houses and 278 apartments)

Existing highway network

- The site is bounded by Church Street to the west, which is a cul-de-sac, with former access to Pilgrim Street to the south stopped up. Church Street commences north of the site at a priority junction with the A41 Chester Street. There are also 3 one-way residential streets that connect between Church Street and the A41 Chester Street. All are subject to on-street parking, which is subject to a residents parking permit scheme.
- The A41 Chester Street connects into the A554 to the north of the site providing onward direct access to the M53. To the south, the A41 provides access to the Queensway Tunnel for Liverpool, and to destinations further south in Wirral.
- Within the last 5 years, there has been one slight PIC recorded at the junction of the A41 Chester Street and Church Street.
- The speed limit on Church Street and Chester Street is 30mph.

Vehicular access

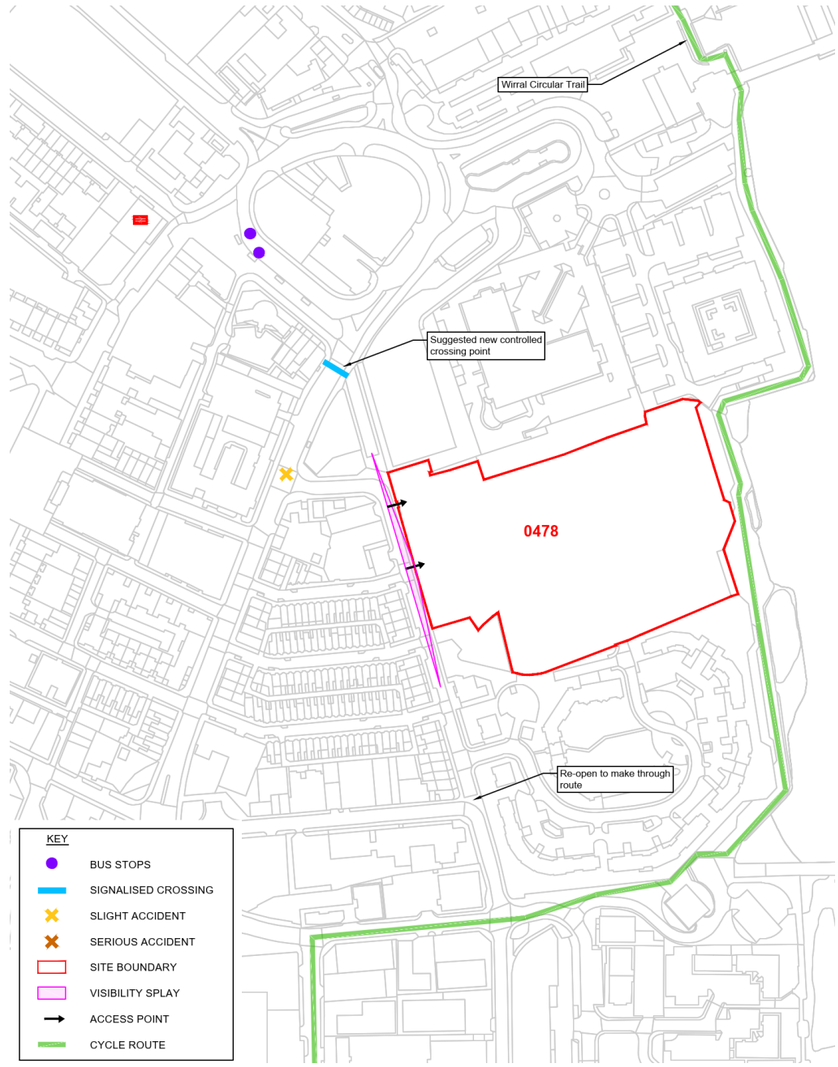
- Existing access to the site is via an access from Church Street into the west of the site. Visibility to the north on Church Street is limited due to a 90' bend in the road.
- There is also potential for additional access to be provided via Priory Wharf to the south of the site subject to land ownership and highway adoption.
- Access could also be provided from the north, via existing access which serves the Land Registry and CSS offices. This route would require formalisation and adoption.
- There is no highway frontage to the north or east of the site.

Walking / Cycling connectivity

- The 'Wirral Circular Trail' which provides a shared walking and cycling route around Wirral runs to the east of the site, adjacent to the River Mersey. This can be readily accessed via Church Street south of the site, at the junction with Monks Ferry.
- Church Street and the adjacent residential roads all feature footways on both sides of the carriageway, whilst 2 signalised crossings are provided on the A41 Chester Street to support connectivity to nearby Birkenhead town centre.

Public Transport connectivity

- The site is well located to benefit from public transport provisions.
- The nearest bus stops are 160m to the north west of the site. These services run along the A41 Chester Street serving key destinations including Clatterbridge, Seacombe, Eastham Rake, New Brighton, Wallasey and Birkenhead.
- Hamilton Square rail station is 240m to the north west of the site and provides high frequency services to Liverpool due to its location on the Wirral Line. Services from Liverpool via Hamilton Square link with Chester, Ellesmere Port, West Kirby and New Brighton every 15 minutes. The station is accessible for wheelchair and pram users.



PROPOSED SCENARIO

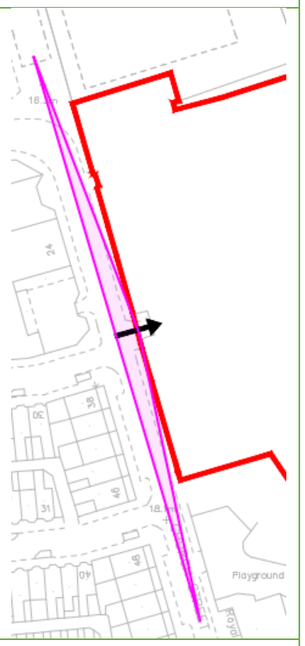
Proposed development and network impact

- The site could support 339 properties consisting of 155 x 1-bed 123 x 2-bed apartments and 46 x 2-bed and 15 x 3-bed houses.
- Applying this density to the town centre trip rates for flats and houses provides the total level of trip generation as shown right.
- 137 parking spaces are provided which is within the maximums suggested by the Wirral Parking SPD.
- Access to the site would be via a new priority junction on Church Street, adjacent to Hornby Street. Hornby Street is on-way eastbound.
- Secondary or future access could be provided north. This would tie into any redevelopment of site 0752.

	Trip rates			*Trip generation (rounded)*		
Time period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	*multiple*	*multiple*	*multiple*	20	64	84
PM peak (17:00-18:00)	*multiple*	*multiple*	*multiple*	60	33	94

Comments and assumptions

- The site is well located to benefit from access to bus and rail services and in accordance with the Wirral Parking Standards SPD, paring provisions could be below the maximum allowances.
- The visibility splay at the access point is slightly sub-standard to the north, however vehicles are likely to be travelling at a lower speed around the corner and therefore providing more time for emerging vehicles to see them. See right.
- The southern end of Church Street would benefit from being re-opened to provide a connection onto Pilgrim Street and the Wirral Circular Trail access road, to enable distribution of trips onto the surrounding highway network. This will provide route choice, and mitigating increased use of Castle Street.
- Design of the site to permit integration with surrounding development opportunities to the north is important to protect pedestrian and cyclist (and potential bus) connectivity.



Conclusions and suggested mitigation | GREEN

- The southern end of Church Street, south of the proposed site access should be re-opened as a through route.
- Traffic calming measures may be required on Castle Street, Hornby Street and Water Street to discourage through movements and manage vehicle speeds.
- Pedestrian and cyclist connectivity should be provided through the site to connect to the Wirral Circular Trail.
- A pedestrian (pelican) crossing is recommended on A41 Chester Street north of the junction with Church Street to facilitate better access to Hamilton Square railway station.
- The upgrade of 4 bus stops on Chester Street to Category E have been allowed for.
- Formalisation and adoption of an access into the north of the site has not been considered at this stage, as the site can be accessed from Church Street sufficiently. This alternative access should however be considered as part of any development of the Woodside site (ref.0752 to the north).
- A new access junction into the site opposite Hornby Street has been allowed for.

Cost summary

- Re-opening of Church Street southern end
- 1 x pelican crossing on A41 Chester Street
- 4 x bus stop upgrades
- New access junction into site
- Total (including mark ups) = £332.1k

Church Street, looking south towards stopped up section, with site on left

Church Street looking north with site on right to 90' bend
Source: Mott MacDonald 2019

Prepared by: C. Reddington	*Checked by: C. Sherratt*	*Approved by: D. Crockett*	*Date:* 25/09/2019	*413660 – Wirral Urban Brownfield Site Residential Potential Assessment – Stage 2, Transportation*

Site ref: RES-RA3.4: Former Rose Brae, Church Street, Birkenhead

EXISTING SCENARIO

Location	Former Rose Brae, Church Street, Birkenhead
Proposed land use	Residential – 339 units (61 family houses and 278 apartments)

Existing Utility Apparatus

North:
- LV, 11kV Cables along Northern site perimeter. Cables terminate at sub-station adjacent to site boundary

East:
- Combined Sewer (300mm) adjacent to length of Eastern site perimeter
- Foul Sewer (300mm) adjacent to South-Eastern corner of site boundary
- LV, 11kV Cables span along Eastern site perimeter

South:
- LV Cables within Eastern footpath of Priory Wharf
- Potable Water (6" PV) within Western footpath of Priory Wharf.

West:
- LV within Eastern footpath of Church Street. LV Cables intersect site boundary and terminate within site which are believed to be out of use
- 33kV Cables extend from Western footpath of Church Street into site boundary believed to be out of use

Potentially Affected Utilities

North:
- LV, 11kV Cables at North-East corner of site

RAG Status of Existing Utility Apparatus:		Commentary:	Potentially affected LV, 11kV cables dependent upon development layout

PROPOSED SCENARIO

Proposed utilities demand calculations

Electric:
1720kVA. Electric load estimation:
- Apartments with electric heating- 7.5kW per a apartment. 278 apartments on site
- Houses with gas heating and no EV – 2kW per a house (estimated from SPEN). 61 houses on site
- EV estimated as 3kW (SPEN EV Handbook). Estimated that 1 EV charger per a house and/or 50% of apartment parking.

Gas:
- Total gas input for the whole site is estimated at 715,951 kWh/annum
- Estimated gas peak input of 407 kW
- It is assumed that all apartments have no gas and are therefore electrically heated

Water:
- Annual water consumption for the whole site is estimated to be 31,451 m^3/annum
- Peak flow rate for the entire site is estimated to be 11.97 l/s

Commentary on available capacity and high-level budget costs estimates for upgrades (as required)

Electric:
Existing LV network cannot accommodate the proposed site. 2x HV substations, EHV & HV Diversions, LV disconnections and Relocate HV substations. Approximate Costing from SPEN £250K.

Gas:
Initial contact with Cadent, suggests no issues with capacity for the sites. Further information is not available free of charge.

Water:
Initial contact with United Utilities (UU), suggests no issues with capacity for the sites. The total budget cost estimate from UU for this site is £336,032

Development Masterplan:

Source: OPEN

Prepared by: J. Joinson	*Checked by: J. Ingram*	*Approved by: C. Sherratt*	*Date: 13.12.19*	*413660 – Wirral Urban Brownfield Site Residential Potential Assessment – Stage 2, Utilities*

Site ref: RES-RA9.1 Liscard Municipal / Seaview Road Car Park

SITE

Area	0.84ha
Location	Egerton Grove, Liscard, Wallasey
Proposed land use	C3 Residential / A1 Retail

TRANSPORT

EXISTING SCENARIO

Existing highway network

- There is an emerging redevelopment masterplan for the town of Liscard. Within the masterplan, this site is identified for potential development, of which will be explored below.
- The site is bound by Egerton Grove to the north-east, Liscard Village to the south-east and Seaview Road to the west. The northern perimeter of the site runs adjacent to residential properties on Daventree Road and West Street.
- Egerton Grove is a narrow two-way street with on-street parking along the northern perimeter, which is situated within a residents-controlled parking zone. There are also waiting restrictions on the southern side of the road, which allows oncoming traffic to pass. There is an existing turning head at the northern end of Egerton Grove, as well as a modal filter road closure to West Street. At its eastern end, it forms a 3-arm priority junction with Liscard Village.
- The road surface and adjacent footways of Egerton Grove are currently in poor condition, and would likely be damaged further when this site is redeveloped.
- Liscard Village is 30mph with one lane in each direction. There are on-street parking bays close to the junction with Queen Street, which facilitate access to active frontages. At the southern edge of the site boundary, Liscard Village forms a 3-arm signalised junction with Seaview Road/Wallasey Road
- Seaview Road is 30mph with one lane in the northbound and southbound directions. Local shops are situated along the route, with free limited waiting on-street parking provision.
- Five-year Road Traffic Collision analysis from 2015-2019 indicated seven incidents in close proximity to the proposed development site. Four slight RTCs were recorded on Liscard Village, and an additional slight RTC was recorded at the junction between Egerton Grove/Seaview Road. One slight and one serious RTC were recorded on Seaview Road. Of these RTCs, the following vulnerable road users were involved:
  - two RTCs involved pedestrians (both slight);
  - two RTCs involved children (both slight);
  - one RTCs involved a motorcyclists (serious);
  - three RTCs involved pedestrians (all slight).
- Given the infrequent occurrence of RTCs over the five-year period, it is recommended that the supporting transport assessment for this site should undertake a detailed accident assessment focusing on the movement of vulnerable road users and the implications of the proposed development.

Vehicular access

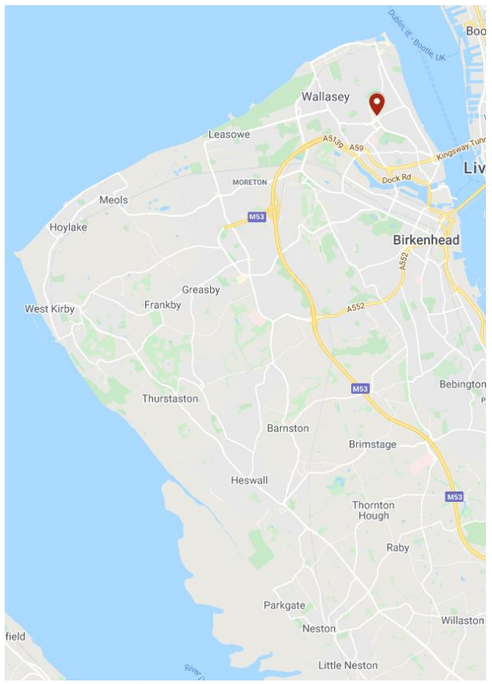
- There is an existing access to the development site on Seaview Road, via an unnamed road adjacent to Fairview Avenue. This provides access to an existing large car park. On-street parking to the north of the junction may impact on visibility.
- There is an additional gated access 65m to the south of the main access point, which provides parking for local businesses on Seaview Road.

Walking / Cycling connectivity

- Dropped kerbs and tactile paving are provided at the junction between Egerton Grove / Rake Lane.
- There are two main pedestrian accesses to the site. One is located at the eastern end of Egerton Grove which provides access to Liscard Community Facilities Complex, while the other is situated on Seaview Road which provides access to an unnamed car park.
- There is an adequate amount of lighting columns on Egerton Grove and Seaview Road.
- There are no Sustrans-recognised cycle routes in close proximity to the development site. Seaview Road is identified as a 'suggested route level 3 – busier roads' in the Wirral Cycle Map.
- One comment has been noted on Wirral Liveable Streets regarding walking/cycling infrastructure on Seaview Road:
- *"Seaview road has become a very busy road… it is now difficult to cross; the pavements are in terrible condition… difficult to negotiate on a bicycle."*

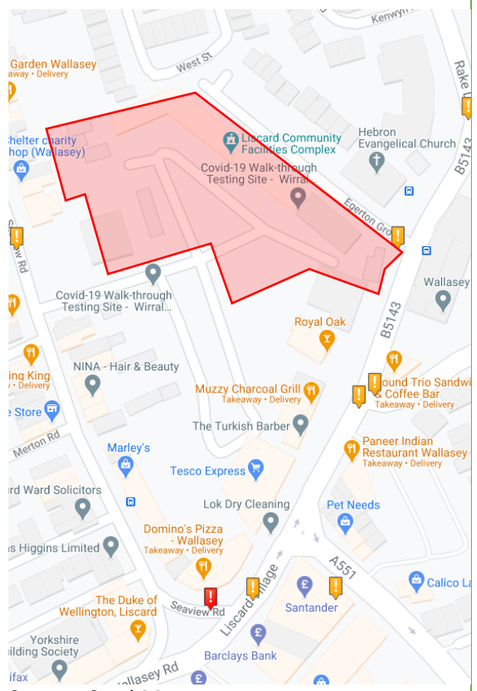
Public Transport connectivity

Location



Source: Google Maps

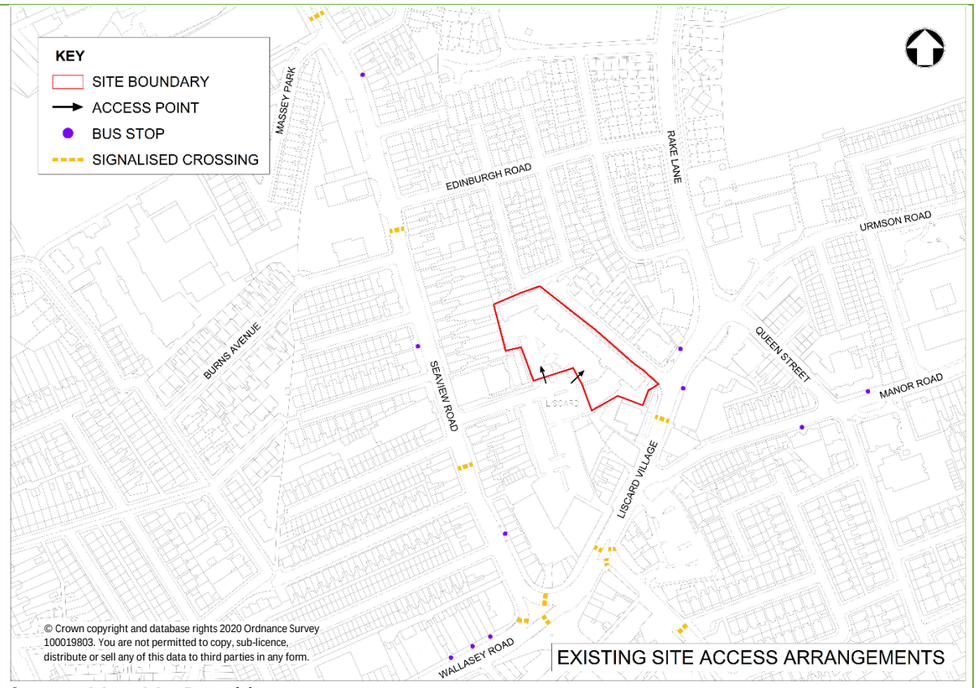
5-Year Accident Analysis



Source: CrashMap

Site Plan *(transport)*

- The closest bus stops are situated approximately 130m to the north of the development site on Seaview Road. The stops are of high quality, and offer shelter to pedestrians from wind and rain. The following services serve the stop:
  - 129: Liscard – Frankby Cemetery – 1 service at from 14:40
  - 414: Woodside Bus Station to New Brighton – 2 services per hour
  - 432: New Brighton to Liverpool – 3 services per hour
- Wallasey Village railway station is positioned approximately 1.8km to the west of the development site, accessible via a 24-minute walk along the A551. No parking is provided at the station, and there is no disabled access points or facilities. It is situated on the Wirral Line of the Merseyrail network, and provides services to the following destinations:
  - Liverpool Central – 2 services per hour
  - New Brighton – 2 services per hour.



Source: Mott MacDonald

RAG Status of Existing Transport Scenario		Commentary	No issues were noted at the site.

PROPOSED SCENARIO

Proposed development and network impact

- This site is included within the Liscard Town Centre Masterplan, which is currently under development. A mini masterplan for this site is included within the document, as well as a supporting movement strategy. The draft version of the BDP masterplan sets out the quantum of development for the site, of which includes:
  - 120-138 apartments
  - 7,800sqft of retail
- Applying the residential trip rate factors, generated within the TRICS database, indicates the likely AM and PM peak trip generation shown in the adjacent table. It should be noted that the trip generation calculation is based on the maximum of 138 apartments on the site, as presented in the aforementioned masterplan.
- It should be noted that the type of retail has not been confirmed, and not all retail trips will be new to the network. Therefore, trip generation should be explored in more detail within a comprehensive Transport Assessment for the site.

Comments and assumptions

- A review for the requirement of a pedestrian link to Egerton Grove and the north-eastern section of the site is required. This should be accounted for in a Transport Assessment.
- The limits of highway adoption will need to be checked on Seaview Road. The adopted highway will need to be stopped up within the site boundary.
- Seaview Road should be the main vehicular access to the site, for both car parking and servicing.
- The proposed masterplan options are shown to the right.
- Wirral LCWIP proposals (drawing number 1000006360-3-010-08) illustrate walking and cycling improvements on Seaview Road, adjacent the proposed development site. A two-way segregated cycleway is proposed on the eastern perimeter of the road, and on-street parking is to be relocated. In addition to this, upgrades to the junction between Seaview Road / Liscard Village / Wallasey Road are proposed, comprising of improved walking infrastructure, as well as a shared-use footway.

Conclusions and suggested mitigation

Trip Generation Analysis

	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.138	0.385	0.523	19	53	72
PM peak (17:00-18:00)	0.363	0.175	0.538	50	24	74

Proposed Site Access Arrangement Plan *(caveat as 'possible' instead of 'proposed' if applicable)*

- Egerton Grove could be the main pedestrian access to the site, as the northern side is also of residential nature. Secondary pedestrian access would therefore be to the south into the car park. The more detailed development proposals for the site will need to ensure barrier free walk routes through the parking lots.
- The modal filter from Egerton Grove to West Street should be upgraded to facilitate access by bicycle.
- Waiting restrictions on Egerton Grove will need to be maintained due to the width of the road.
- The carriageway on Egerton Grove will need refurbishing. Footways and street lighting adjacent the site will also require an upgrade.

The existing car park in the southern portion of the site will require significant reconfiguration. But, the extent of these works is currently unknown, and therefore excluded from the budget costings below.

Cost summary for UV01 – Liscard Municipal

- Egerton Grove modal filter upgrade: £10,000 - £15,000
- Egerton Grove footway upgrade: £30,000 - £50,000
- Egerton Grove carriageway upgrade: £50,000 - £75,000
- Egerton Grove street lighting upgrade: £5,000 - £10,000

Source: BDP Liscard Masterplan

Prepared by: J. McManus	*Checked by: D. Blakey*	*Approved by: D. Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

North:

- Potable Water – 1 no. 4" CI within Southern footway of West Street.
- Electricity – 1 no. LV cable within Southern footway of West Street.
- Gas – 125mm LP PE within Western footway of Egerton Grove, at North-East.
- Wastewater – doesn't appear to be within study area.

East:

- Potable Water – 1 no. 6" CI within Western footway of Egerton Grove.
- Electricity – 1 no. LV cable within Western footway of Egerton Grove. 2 no. LV cable supplies into development plot.
- Gas – 125mm LP PE within Western footway of Egerton Grove, at North-East.
- Wastewater – doesn't appear to be within study area.

South:

- Utility apparatus doesn't appear to be within study area.

West:

- Utility apparatus doesn't appear to be within study area.

Site Visit Photos

Source: Mott MacDonald

Potentially Affected Utilities

None.

Scottish Power Energy Network Budget Estimate

- The findings of the SPEN study indicate that the site will require 160kVA, with the existing LV network unable to accommodate this. Thus, the site will require 1x HV Y-type substation, HV cable excavation, an extension of the LV main and 20x LV services. LV disconnection is also required.
- The approximate cost for the full works is estimated at £115,000

It should be noted that the SPEN infrastructure requirements are based on previous proposals for 20 dwellings at the site.

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, no diversions appear to be required.

RAG Status of Existing Utility Apparatus		Commentary	*Utilities don't appear to be affected.*

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D. Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

Site ref: RA11.5 New Ferry

SITE

Area	0.06ha
Location	100 New Chester Road, New Ferry, Wirral
Proposed land use	Residential and mixed use – 27 dwellings

TRANSPORT

EXISTING SCENARIO

Existing highway network

- Currently, the site is occupied by the Phabulous Community Charity Trading Hub and an unused Co-op Funeral Services premises. There is a small servicing access area to the rear of the building, a small part of which is used for car parking.
- The site is bound by New Chester Road to the east, Woodhead Street to the southeast and Bebington Road to the north. Bebington Road is a pedestrianised street with access for loading for the small retail units.
- New Chester Road is a 30-mph single carriageway road. There is a bus stop on New Chester Road adjacent to the proposed development site.
- There is a council car park on Woodhead Street to the rear of the site. An outline planning application (DPP3/20/00415) for 15 houses and 30 apartments on this site was approved in September 2020.
- Local shops and amenities are located around the proposed development site as it is located in the centre of New Ferry. The site is located on New Chester Road which runs parallel to the A41 Rock Ferry bypass. The A41 provides access to Birkenhead to the north and Bromborough and the M53 to the south.
- 5-year Road Traffic Collision (RTC) analysis from 2017 to 2021 shows a large number of incidents in the immediate vicinity of the site. Along New Chester Road, to the east of the site, 3 serious and 2 slight incidents were recorded. There were also one serious and three slight incidents recorded further along New Chester Road. There appears to be a concentration of incidents at the New Ferry Road / New Chester Road junction, which is the immediate north of the proposed development site.
- Upgrades have been carried out to the New Ferry Road junction and the Grove Street junction through the introduction of traffic signals incorporating controlled pedestrian crossing facilities. It is hoped that these improvements should reduce the number of collisions noted above.

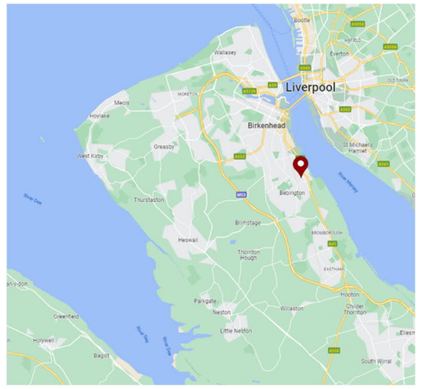
Vehicular access

- The existing site can be accessed via Woodhead Street, which has a priority junction with New Chester Road and Winstanley Road.
- This route was also the servicing route for the former food store and other commercial units fronting New Chester Road.

Walking / Cycling connectivity

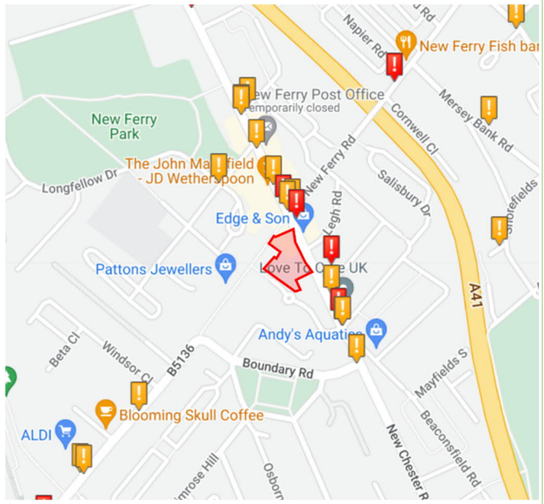
- All streets surrounding the site have footways and street lighting.
- Bebington Road to the north of the site is a pedestrianised road (with vehicular access for loading at specific times). It has adequate lighting along its length. At the time of preparation of this document, plans were underway to improve the public realm of New Ferry which will include the pedestrianised area of the town.
- There are temporary on-road cycle lanes, using orca-type light segregation, further north along New Chester Road. There are advanced stop lines for cyclists at the traffic lights at the New Chester Road / New Ferry Road junction.

Location



Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan *(transport)*

TRANSPORT

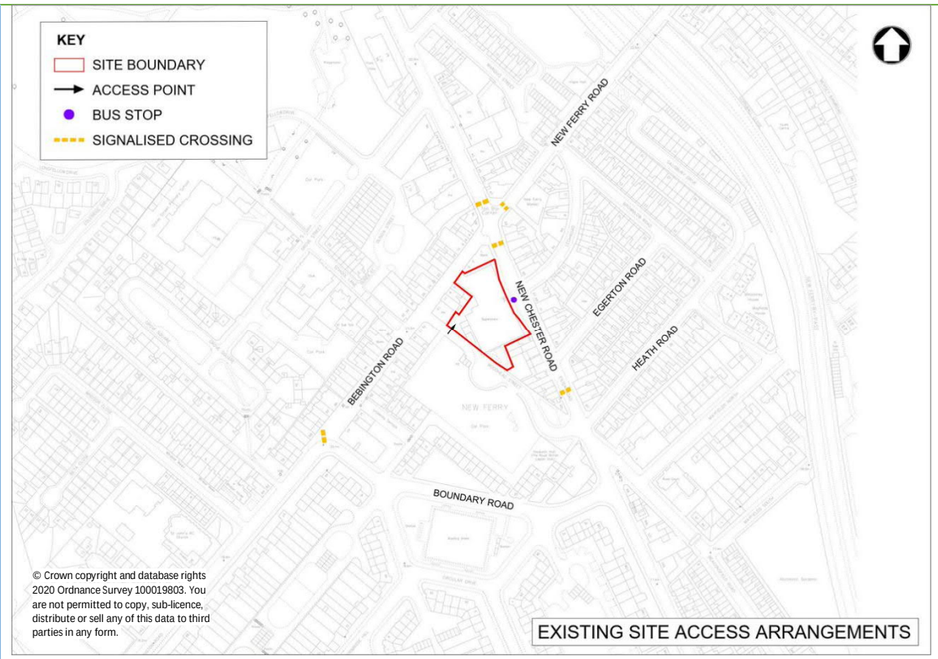
EXISTING SCENARIO

- The conditions of the footways on New Chester Road are reasonable. On Bebington Road, footways are reasonable, but would benefit from upgrading.

Public Transport connectivity

- Bebington is the closest rail station to the development site, and lies 520m southwest of the proposed development site. It is served by the Chester and Ellesmere Port branches of the Wirral Line. From the site, it is accessed via Bebington Road. The station provides services to:
  - Chester – 4 services per hour
  - Liverpool Central – 6 services per hour
  - Ellesmere Port – 2 services per hour
- A bus stop is located on the western side of New Chester Road (northbound), adjacent to the proposed development site (a 1-minute walk), and provides access to the following services:
  - 41/42: Eastham Rake to Woodchurch
  - 1 / X1 – Chester to Liverpool
  - 418: Beechwood to New Ferry
- Further north on New Chester Road (100m, 2-minute walk) there is a southbound bus stop, served by routes 41/42 and 1/X1. On New Ferry Road (150m, 3-minute walk) there are bus stops served by routes 418 and 464 (Liverpool to New Ferry).

RAG Status of Existing Transport Scenario		Commentary	Poor road safety record on New Chester Road



Source: Mott MacDonald

PROPOSED SCENARIO

Proposed development and network impact

- The site has been identified for residential use (use class C3). The site has a capacity of approximately 27 dwellings.
- Based on these assumptions, applying this density of 27 units to trip rate factors generated by the TRICS database, indicates the likely AM and PM peak trip generation shown in the adjacent table. This will however depend upon the amount of parking which is provided to the new development.

Trip Generation Analysis

	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.138	0.385	0.523	1	10	11
PM peak (17:00-18:00)	0.363	0.175	0.538	10	5	15

TRANSPORT

PROPOSED SCENARIO

Comments and assumptions

- It is noted that low density housing should integrate with the surrounding residential developments. It is also noted that the Council is currently progressing a regeneration masterplan for New Ferry. Important elements of the masterplan is the conversion of the council car park to the south of Woodhead Street to new residential, and also conversion of the commercial units to the south of the site fronting New Chester Road to residential units. Consequently, the proposals for the conversion of this site will need to coordinate with the New Ferry regeneration proposals.
- Parking provision needs to be provided in line with Car Parking Standards in the Draft Local Plan.
- A Transport Statement will be required for the site detailing proposed access arrangements and how it will integrate with the wider New Ferry regeneration proposals.
- A Construction Management Plan be required for the site.

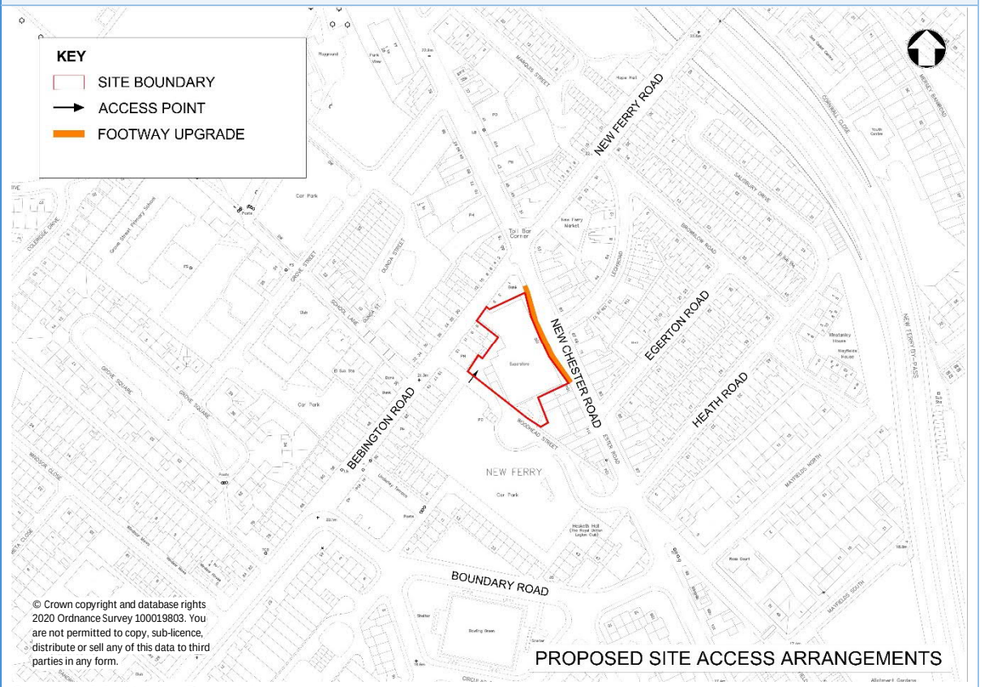
Conclusions and suggested mitigation

- If required, vehicular access will be from Woodhead Street on the west side of the site.
- A visibility splay is required at the site access junction on Woodhead Street to ensure it complies with Manual for Street standards.
- The existing bus stop on New Chester Road, adjacent to the proposed development site, should be moved into the main carriageway, rather than in the current layby. The footway can then be widened and upgraded to provide an enhanced pedestrian space along the frontage of the site. Materials will need to coordinate with those being used for the wider proposed public realm improvements.
- The Transport Statement should undertake a comprehensive review of the safety record on New Chester Road to ensure the proposed development will not worsen the situation.

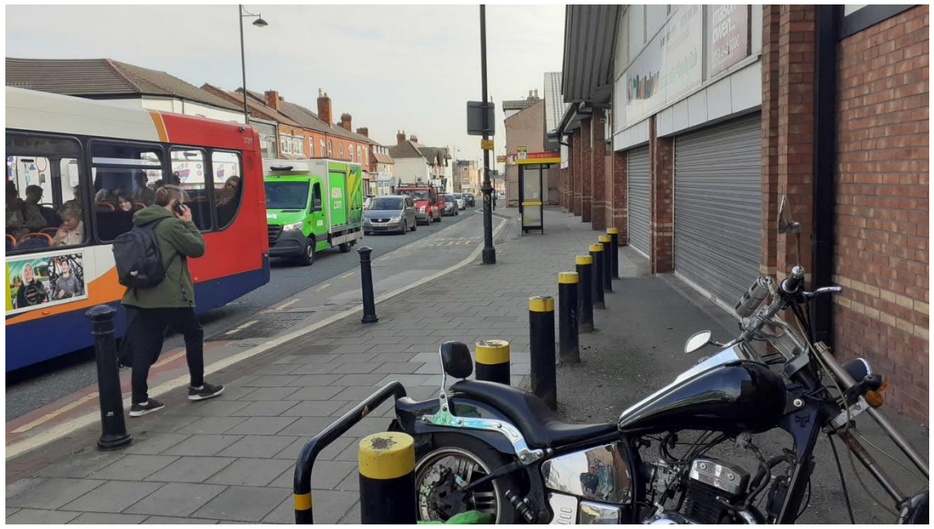
Cost estimate for off-site works for site ref: RA11.5 New Ferry:

- Widening and upgrade of the footway along the New Chester Road frontage: £50,000 - £75,000
- Site access improvements: TBD as site proposals progress

Proposed Site Access Arrangement Plan



Source: Mott MacDonald



Source: Mott MacDonald

Prepared by: Hannah Smith	Checked by: *Duncan Crockett*	*Approved by: Duncan Crockett*	*Date: 12/04/2022*	Project Details	Wirral Local Plan Support: Additional sites review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus	Site Visit Photos
North: • Electricity – SPEN HV and LV Duct(s) • Gas – Cadent 315mm PE LP main • Potable Water - Based upon the information received, utility apparatus does not appear to be within the site boundary • Waste Water – United Utilities 225mm Combined Water, 63mm PE 2004 CI pipe of unknown nature • Telecoms – BT Openreach cable(s)/duct(s) Vodafone Duct(s)	 Source: Mott MacDonald
Potentially Affected Utilities	
North: • SPEN HV and LV Duct(s) • Cadent 315mm PE LP main • United Utilities 225mm Combined Water, 63mm PE 2004 CI pipe of unknown nature • Vodafone Duct(s)	
Conclusions and suggested mitigation	
This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas. Based on the information obtained, the potentially affected utilities may require diversion if the plot is to be developed. The requirement and financial implications to provide new services for the proposed development including electricity, gas, water and telecoms has not been considered at this stage and it is recommended that this is undertaken by the developer.	

RAG Status of Existing Utility Apparatus		Commentary	*Potential diversion of utility apparatus*

Prepared by: E Bonner	*Checked by: S Alexander*	*Approved by: S Alexander*	*Date: 22/04/22*	Project Details	Wirral Local Plan Support: Additional sites review

3 Employment Sites

Within this section are the assessment proformas for the following large employment sites:

- EMP-RA6.1 Birkenhead Dock Estate - Land at Beaufort Road (MEA Park West, Beaufort Road, Birkenhead)
- EMP-RA6.2 Former Mobil Oil (MEA Park West, Wallasey Bridge Road, Birkenhead)
- EMP-RA6.3 MEA Park (MEA Park East, Beaufort Road, Birkenhead)
- EMP-RA6.4 Wirral Waters Tower Quay
- EMP-RA6.5 Maritime Knowledge Hub, Tower Road, Birkenhead
- EMP-RA7.1 Kern's Warehouse, Cleveland Street, Birkenhead
- EMP-SA3.2 North Cheshire TE - North of KCTS
- EMP-SA3.3 North Cheshire TE - South of Halliday Funeral Supplies
- EMP-SA4.1 Former Builders Yard (Land south of Riverbank Road, Bromborough)
- EMP-SA4.2 Former Tank Farm (Sun Valley Expansion, Commercial Road, Bromborough)
- EMP-SA4.3 Former Spectrum Adhesives (Land north of Caldbeck Road, east of Welton Road, Bromborough)
- EMP-SA4.4 Tulip Expansion, Plantation Road, Bromborough)
- EMP-SA4.5 Eastham Dock Estate - North Road Tank Farm Complex (North Road Business Park, North Road, Eastham)
- EMP-SA5.1 Peninsula Business Park, Reeds Lane, Moreton
- EMP-SA5.2 Premier Brands, Reeds Lane - North of Access Road
- EMP-SA5.3 Premier Brands, Reeds Lane - South of Access Road
- EMP-SA5.4 Tarran IE (Land south of Tarran Way North, Moreton)
- EMP-RA3.1 Twelve Quays Morpeth Waterfront
- EMP-SA2.1 Cammell Laird South, Campbeltown Road, Birkenhead
- EMP RA8.1 Former Gas Holders, Dock Road, Wallasey

Site ref: EMP-RA 6.1 – Birkenhead Dock Estate

SITE

Area	1.6ha
Location	Beaufort Road, Birkenhead, Wirral
Proposed land use	B2 General Industry; B8 Storage or Distribution

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The existing Cammell Laird Ship Repairers and Ship Builders currently occupies part of the development site.
- The site is bound by Wallasey Bridge Road to the east and Beaufort Road to the south. The allocated employment site EMP-RA6.2 – Former Mobil Oil bounds the site to the north and the east, and the MEA Park site (ref EMP-RA6.3) to the east. Note, all three of these sites form part of the Wirral Water regeneration initiative (discussed further below).
- The site benefits from recent public realm enhancements (i.e. the planting of trees along Beaufort Road).
- Beaufort Road is 30mph with 2-lanes in the eastbound and westbound directions. In addition to a number of laybys, pockets of on-street parking are provided at the eastern section of the road, which are associated with local businesses.
- At the western end, Beaufort Road forms a priority roundabout junction with Wallasey Bridge Road.
- Wallasey Bridge Road is 30mph with 2 lanes in the northbound and southbound directions. Numerous local businesses are accessed via the route, including the Bidston Household Waste Recycling Centre.
- Merseyrail maintenance depot is located to the southwest of the development site.
- Both Beaufort Road and Wallasey Bridge Road are heavily trafficked by HGVs.
- 5-year Road Traffic Collision (RTC) analysis from 2015-2019 indicates 4 incidents along Beaufort Road (2 slight and 2 serious), and 5 along Wallasey Bridge Road (5 slight) in immediate proximity to the development site. Of these slight incidents, 2 on Wallasey Bridge Road involved pedal cyclists, and 1 involved a pedestrian. One other serious pedestrian casualty was recorded on Beaufort Road, at the junction with Wallasey Bridge Road. A number of incidents have been recorded at Laird Street and Stanley Road to the south of the proposed development site.

Vehicular access

- There is an existing vehicular access on Beaufort Road, which provides access to the Cammell Laird ship repairers and ship builders. This junction has a wide mouth, and benefits from good visibility. However, there are no road markings are marked at the junction.
- There is an additional access point along Wallasey Bridge Road. No road markings are provided at the junction.

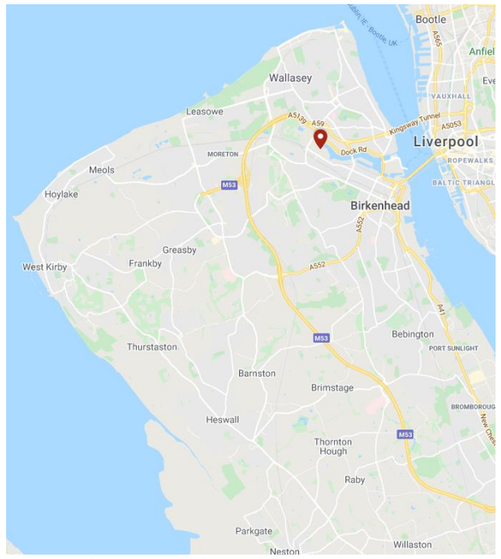
Walking / Cycling connectivity

- Both Beaufort Road and Wallasey Bridge Road are busy HGV routes. In particular, the narrow carriageway, coupled with narrow footways, overgrown vegetation and no dropped kerbs or tactile paving on Wallasey Bridge Road creates a poor, unsafe walking environment.
- The southern section of Wallasey Bridge Road is identified as a 'suggested level 3 route' in the Wirral Cycle Map. However, a number of comments have been made on the Wirral Liveable Streets website, mostly relating to the poor walking/cycling environment. The absence of dropped kerbs, vehicular speeds, footway condition, and lack of lighting/space are common recurring themes.
- No footways are provided along the northern perimeter of Beaufort Road, whereas there are narrow footways along the southern perimeter. Dropped kerbs are provided at local and access junctions, however there are no push-button facilities or tactile paving.
- Reference is however made to APP/20/01298 - Land between Beaufort Road and Wallasey Bridge Road, South of West Float, Wirral Waters. This scheme plans to carry out of public realm works to create a footway / cycleway, associated remediation, removal of sub stations and landscape works on land between Beaufort Road and Wallasey Bridge Road. £920,000 has been secured for delivery by end of 2021 but only up to Bidston Moss. Continuation of the scheme along Wallasey Bridge Road is therefore not included.

Public Transport connectivity

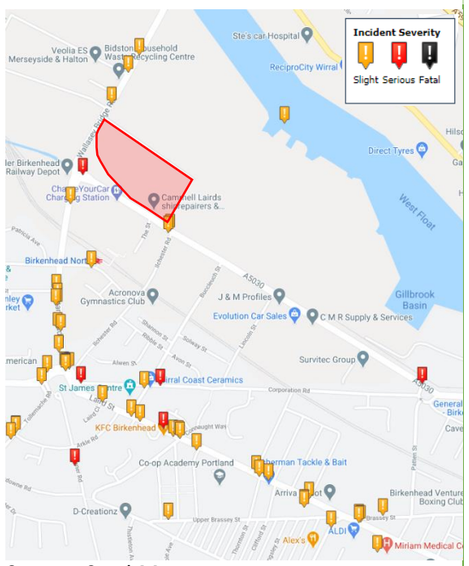
- The site is positioned opposite Birkenhead North rail station, which is situated on the Wirral Line of the Merseyrail network. It is a popular park and ride site with 630 car parking spaces which are free for passengers. The station has adequate lighting column and CCTV, which meet Merseytravel's Travelsafe requirements. In addition to this, there is also safe cycle storage for 12 cycles, and electric-vehicle charge points. A summary of the services and frequencies is provided below:
  - Liverpool Central: 4 services per hour

Location



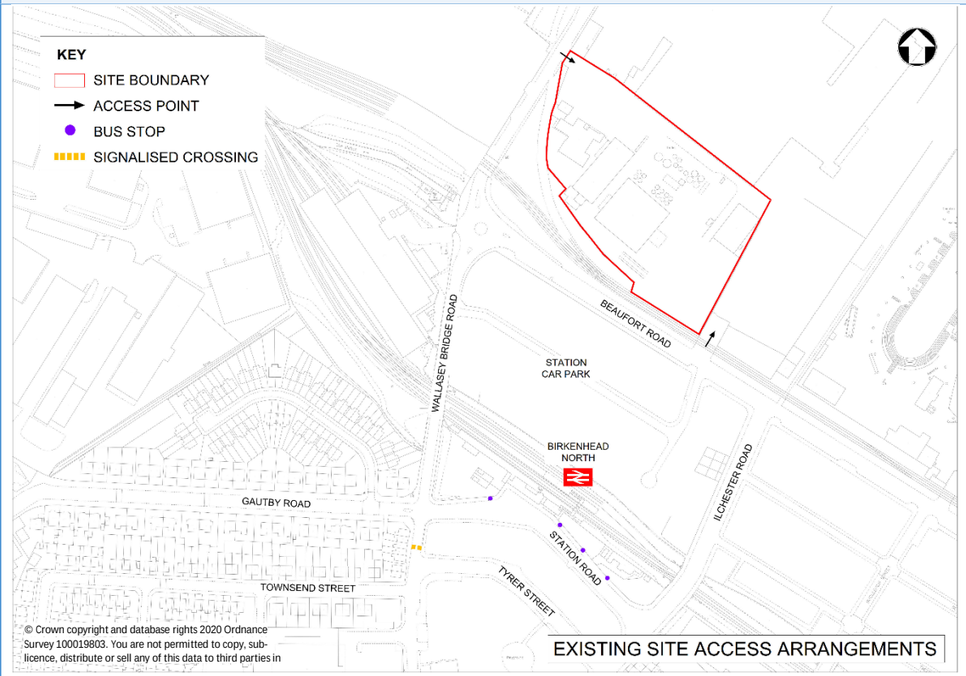
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan *(transport)*



Source: Mott MacDonald

- New Brighton: 2 services per hour
- West Kirby: 2 services per hour

- The closest bus stop is located approximately 450m to the south-west on Station Road, on which there is an entrance to Birkenhead North railway station. The bus stops do not offer any shelter for pedestrians, and services are infrequent:
  - 626, 633: dedicated school services.
- Additional bus stops, providing more frequent services, are situated approximately 700m to the south on Laird Street. They are accessed via a 9-minute walk along Stanley Road. The stops are of high quality, and services include:
  - 216: Woodside to Woodchurch Circular - 2 services at 07:03 and 07:33
  - 407: Liverpool Cook Street to West Kirby Station – 3 services per hour
  - 418: Birkenhead to New Ferry Circular - 1 service per hour
  - 495: Birkenhead to Beechwood Circular – 2 services per hour
  - 658, 698: dedicated school services.
- There is an existing disused railway along the southern perimeter of the site on Beaufort Road.

RAG Status of Existing Transport Scenario		Commentary	Site would sit well within existing context, however surrounding transport infrastructure walk / cycle / bus requires upgrade.

PROPOSED SCENARIO

Proposed development and network impact	Trip Generation Analysis
• The site has been allocated for B2 general Industry or B8 storage or distribution use. It forms part of the Wirral Waters major regeneration proposals, the vision for which is to create a new city waterfront focussing upon the transformation of Birkenhead and Wallasey Docks, and their surrounding areas. • An outline planning application (OUT/11/00645) has been submitted, and accepted with conditions , for the site. • Conditions for development of the site include: o The submission of a Construction Management Plan for each phase of development; o Schedule of Highway Work, including triggers and methods of implementation of infrastructure for pedestrians, cycling, parking, public transport and vehicular traffic, as well as any highway mitigation required.; o The submission of a Monitoring Strategy; o The submission of an Environmental Statement; o The submission of a full Travel Plan. • Trip generation will be determined by an updated Transport Assessment. The cumulative impact of developing this site, EMP-RA6.2 Former Mobil Oil, and EMP-RA-6.3 MEA Park should be considered. It should also be noted that Keepmoat Docklands, a residential development, is currently under construction to the south of Beaufort Road. This will need to be included in any cumulative impact analysis.	Trip generation will be determined by an updated Transport Assessment.
Comments and assumptions	**Suggested Site Access Arrangement Plan**
• The site benefits from good public transport, which will encourage sustainable travel. • Parking and cycle parking provision will need to conform with the new standards set out within the Local Plan. • An updated Transport Assessment should be provided for the site, accounting for the cumulative impact of the developing the three aforementioned sites together. Additionally, a Travel Plan and updated masterplan will also be required, and all conditions set out for OUT/11/00645 should be adhered to. • There is potential to develop this site, EMP-RA6.2 Former Mobil Oil, and EMP-RA-6.3 MEA Park as a combined development plot.	
Conclusions and suggested mitigation	

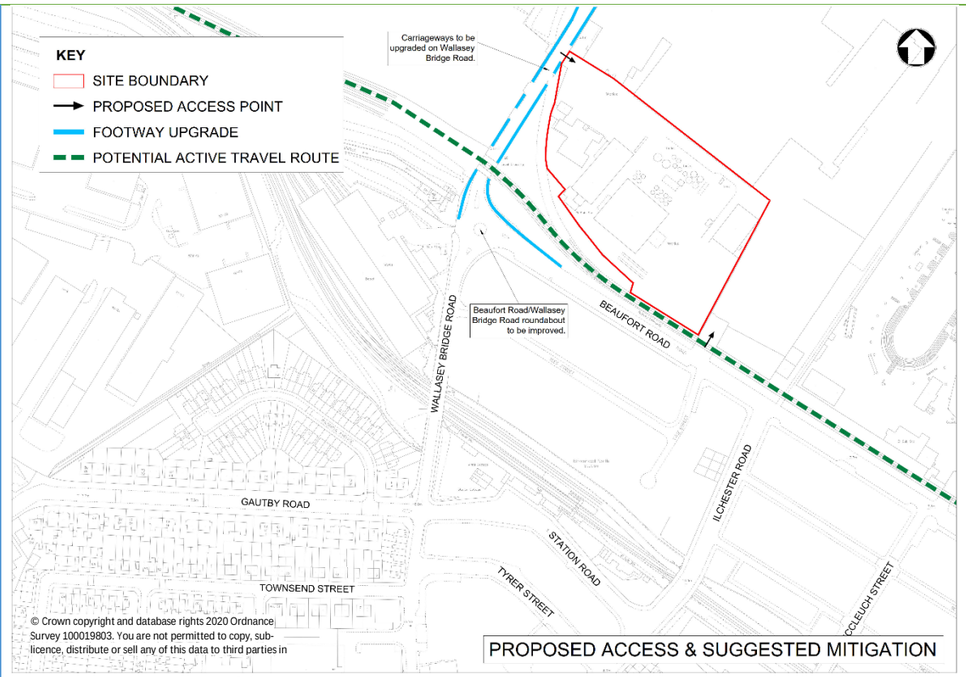
Levels of off-site mitigation for redeveloping this site will be dependent upon whether this site is redeveloped as a standalone site, or combined with other Wirral Waters sites. However, below are local infrastructure which should be considered during planning:

- Upgrades to the roundabout junction between Wallasey Bridge Road / Beaufort Road.
- Upgrades to the roundabout junction between Dock Road and Wallasey Bridge Road.
- Footways and carriageways along Wallasey Bridge Road require upgrade.
- Segregated cycleway along Wallasey Bridge Road with toucan crossing to link to the Bidston Moss cycle route.
- Potential to transform disused railway line on Beaufort Road into a high-quality walking and cycling route.
- Potential to incorporate public Transit facility along the disused railway line on Beaufort Road.
- Traffic management measures along Beaufort Road to better manage traffic speeds and improve pedestrian and cycle crossing facilities.

Note, depending upon the scale of development, Highways England may need to be consulted on potential impacts to the Strategic Road Network.

Cost summary for EMP RA6.1

- TBD



Source: Mott MacDonald

Prepared by: J. McManus	*Checked by: Daniel Blakey*	*Approved by: Duncan Crockett*	*Date: 27/01/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

EMP-RA6.1 – Birkenhead Dock Estate, Land at Beaufort Road

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

North:
- Utility apparatus doesn't appear to be within study area.

East:
- Utility apparatus doesn't appear to be within study area.

South:
- Electricity – HV (11kV) and EHV (33kV) within Southern boundary. Electricity Sub-Station within proposed development.
- Gas – 1 no. LP 4" CI within proposed development.
- Potable Water and Wastewater apparatus don't appear to be within study area.

West:
- Electricity - LV, HV (11kV) and EHV (33kV) adjacent to Western boundary.
- Gas –_1 no. MP 250mm PE and gas governor within Western boundary.
- Potable Water and Wastewater apparatus don't appear to be within study area.

Potentially Affected Utilities

- HV (11kV) and EHV (33kV) within Southern boundary.
- 1 no. 250mm MP PE, gas governor and 4" LP CI.

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, the existing 33kV minor apparatus appears to encroach upon the proposed development. This should not be considered as being an issue as some of the connections may be required for future use. However, the consideration should be given to the HV Sub-Station, located to the South-West of the plot. Re-location of such facilities are expensive and time consuming, therefore should be considered as a constraint to the development, to avoid the need to re-locate.

RAG Status of Existing Utility Apparatus		Commentary	*Potential requirement to re-locate HV.*

Prepared by: C Osborne	*Checked by: John Ingram*	*Approved by: Duncan Crockett*	*Date: 27/01/2021*

Site Visit Photos

Source: Mott MacDonald

Project Details	Wirral Local Plan Support: Additional Sites Review

Site ref: EMP-RA6.2 Former Mobil Oil

SITE

Area	4.00ha
Location	Beaufort Road, Birkenhead, Wirral, CH41 1EB
Proposed land use	B2 General Industry; B8 Storage or Distribution

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The site is bound by Wallasey Bridge Road to the east, Beaufort Road to the south and West Float dock to the north. Employment site EMP-RA6.1 is situated between the site boundary and Beaufort Road/Wallasey Bridge Road, and EMP RA3.6 MEA Park is located to the east of the site. It should be noted that all three of these sites form part of the Wirral Water regeneration initiative (discussed further below).
- The site benefits from recent public realm enhancements (i.e. the planting of trees along Beaufort Road).
- Beaufort Road is 30mph with 2-lanes in the eastbound and westbound directions. In addition to a number of laybys, pockets of on-street parking are provided at the eastern section of the road, which are associated with local businesses.
- At the western end, Beaufort Road forms a priority roundabout junction with Wallasey Bridge Road. Wallasey Bridge Road is 30mph with 2 lanes in the northbound and southbound directions. Numerous local businesses are accessed via the route, including the Bidston Household Waste Recycling Centre.
- Both Beaufort Road and Wallasey Bridge Road are heavily trafficked by HGVs.
- 5-year Road Traffic Collision (RTC) analysis from 2015-2019 indicates 4 incidents along Beaufort Road (2 slight and 2 serious), and 5 along Wallasey Bridge Road (5 slight) in immediate proximity to the development site. Of these slight incidents, 2 on Wallasey Bridge Road involved pedal cyclists, and 1 involved a pedestrian. One other serious pedestrian casualty was recorded on Beaufort Road, at the junction with Wallasey Bridge Road. A number of incidents have been recorded at Laird Street and Stanley Road to the south of the proposed development site.

Vehicular access

- There is a junction on Beaufort Road which provides access to the existing Tyre Brigade tyre shop. This is situated within the proposed development site, and benefits from good left-right visibility.
- An additional vehicular access is positioned on Wallasey Bridge Road, at the southern end of the site. Visibility may not conform with the standards set out in DMRB, as vegetation may obstruct drivers. The junction does not have any road markings.

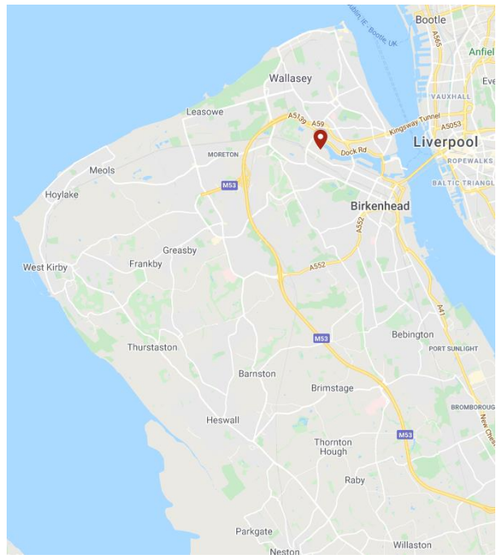
Walking / Cycling connectivity

- Both Beaufort Road and Wallasey Bridge Road are busy HGV routes. In particular, the narrow carriageway, coupled with narrow footways, overgrown vegetation and no dropped kerbs or tactile paving on Wallasey Bridge Road creates a poor, unsafe walking environment.
- The southern section of Wallasey Bridge Road is identified as a 'suggested level 3 route' in the Wirral Cycle Map. However, a number of comments have been made on the Wirral Liveable Streets website, mostly relating to the poor walking/cycling environment. The absence of dropped kerbs, vehicular speeds, footway condition, and lack of lighting/space are common recurring themes.
- No footways are provided along the northern perimeter of Beaufort Road, whereas there are narrow footways along the southern perimeter. Dropped kerbs are provided at local and access junctions, however there are no push-button facilities or tactile paving.
- Reference is however made to APP/20/01298 - Land between Beaufort Road and Wallasey Bridge Road, South of West Float, Wirral Waters. This scheme plans to carry out of public realm works to create a footway / cycleway, associated remediation, removal of sub stations and landscape works on land between Beaufort Road and Wallasey Bridge Road. £920,000 has been secured for delivery by end of 2021 but only up to Bidston Moss. Continuation of the scheme along Wallasey Bridge Road is therefore not included.

Public Transport connectivity

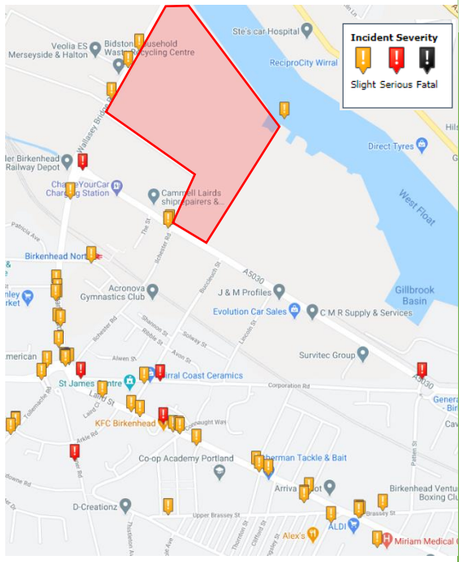
- The site is positioned opposite Birkenhead North rail station, which is situated on the Wirral Line of the Merseyrail network. It is a popular park and ride site with 630 car parking spaces which are free for commuters. The station has adequate lighting columns and CCTV, which meet Merseytravel's Travelsafe requirements. In addition to this, there is also safe cycle storage for 12 cycles, and electric-vehicle charge points. A summary of the services and frequencies is provided below:
    - Liverpool Central: 4 services per hour

Location



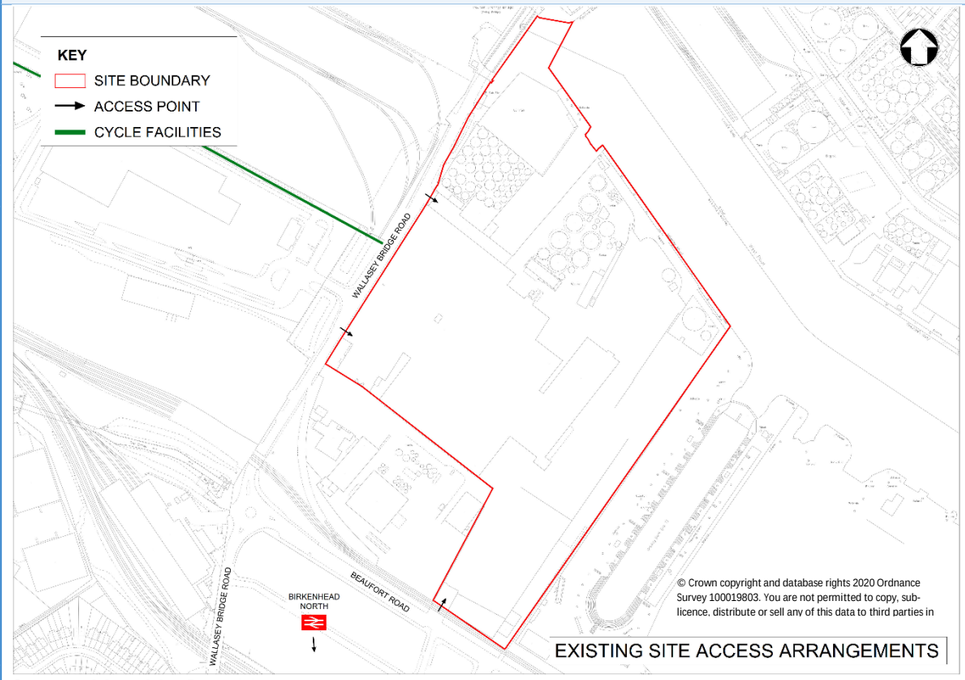
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan *(transport)*



Source: Mott MacDonald

- New Brighton: 2 services per hour
- West Kirby: 2 services per hour

- The closest bus stop is located approximately 300m to the south-west on Station Road, on which there is an entrance to Birkenhead North railway station. The bus stops do not offer any shelter for pedestrians, and services are infrequent:
  - 626, 633: dedicated school services.
- Additional bus stops, providing more frequent services, are situated approximately 900m to the south on Laird Street. They are accessed via a 12-minute walk along Wallasey Bridge Road and Buccleuch Street. The stops are of high quality, and services include:
  - 216: Woodside to Woodchurch Circular - 2 services at 07:03 and 07:33
  - 407: Liverpool Cook Street to West Kirby Station – 3 services per hour
  - 418: Birkenhead to New Ferry Circular - 1 service per hour
  - 495: Birkenhead to Beechwood Circular – 2 services per hour
  - 658, 698: dedicated school services.
- There is an existing disused railway on Beaufort Road which crosses Wallasey Bridge Road via a level crossing which is a poor state of repair.

RAG Status of Existing Transport Scenario		Commentary	Site would sit well within existing context.

Proposed development and network impact	Trip Generation Analysis
• The site has been allocated for B2 general Industry or B8 storage or distribution use. It forms part of the Wirral Waters major regeneration proposals, the vision for which is to create a new city waterfront focussing upon the transformation of Birkenhead and Wallasey Docks, and their surrounding areas. • An outline planning application (OUT/11/00645) has been submitted, and accepted with conditions , for the site. • Conditions for development of the site include: o The submission of a Construction Management Plan for each phase of development; o Schedule of Highway Work, including triggers and methods of implementation of infrastructure for pedestrians, cycling, parking, public transport and vehicular traffic, as well as any highway mitigation required.; o The submission of a Monitoring Strategy; o The submission of an Environmental Statement; o The submission of a full Travel Plan. • Trip generation will be determined by an updated Transport Assessment. The cumulative impact of developing this site, EMP-RA6.3 MEA Park, and EMP-RA-6.1 Birkenhead Dock Estate should be considered. It should also be noted that Keepmoat Docklands, a residential development, is currently under construction to the south of Beaufort Road. This will need to be included in any cumulative impact analysis.	Trip generation will be determined by an updated Transport Assessment.

Comments and assumptions	Suggested Site Access Arrangement Plan
• The site benefits from good public transport, which will encourage sustainable travel. • Parking and cycle parking provision will need to conform with the new standards set out within the Local Plan. • An updated Transport Assessment should be provided for the site, accounting for the cumulative impact of the developing the three aforementioned sites together. Additionally, a Travel Plan and updated masterplan will also be required, and all conditions set out for OUT/11/00645 should be adhered to. • There is potential to develop this site, EMP-RA6.2 Former Mobil Oil, and EMP-RA-6.3 MEA Park as one.	

Conclusions and suggested mitigation

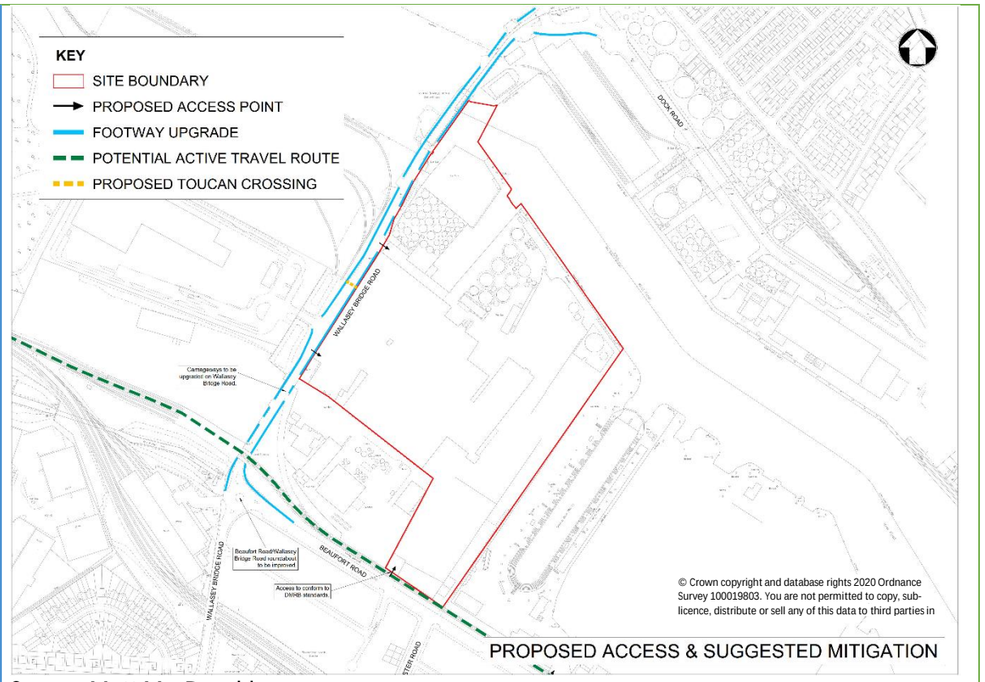
Levels of off-site mitigation for redeveloping this site will be dependent upon whether this site is redeveloped as a standalone site, or combined with other Wirral Waters sites. However, below are local infrastructure which should be considered during planning:

- Upgrades to the roundabout junction between Wallasey Bridge Road / Beaufort Road.
- Upgrades to the roundabout junction between Dock Road and Wallasey Bridge Road.
- Footways and carriageways along Wallasey Bridge Road require upgrade.
- Segregated cycleway along Wallasey Bridge Road with toucan crossing to link to the Bidston Moss cycle route.
- Potential to transform disused railway line on Beaufort Road into a high-quality walking and cycling route.
- Potential to incorporate public Transit facility along the disused railway line on Beaufort Road.
- Traffic management measures along Beaufort Road to better manage traffic speeds and improve pedestrian and cycle crossing facilities.

Note, depending upon the scale of development, Highways England may need to be consulted on potential impacts to the Strategic Road Network.

Cost summary for EMP RA6.2

- TBD



Source: Mott MacDonald

Prepared by: J. McManus	*Checked by: Daniel Blakey*	*Approved by: Duncan Crockett*	*Date: 27/01/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

EMP-RA6.2 – Former Mobil Oil

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

North:
- Potable Water – Distribution Mains (4”/6” CI) within Northern boundary.
- Wastewater, Electricity and Gas apparatus don’t appear to be within study area.

East:
- Electricity – 1 no. LV cable within Eastern boundary.
- Potable Water – 1 no. 6” CI within Eastern boundary.
- Potable Water, Wastewater and Gas apparatus don’t appear to be within study area.

South:
- Utility apparatus doesn’t appear to be within study area.

West:
- Potable Water – 1 no. Distribution Main (110mm PE) within Wallasey Bridge Road. 1 no. Trunk Main (450mm HDPE) within Wallasey Bridge Road and continues within proposed development at North-West.
- Wastewater – 1 no. Combined Sewer (375mm) within Eastern footway of Wallasey Bridge Road. 1 no. Highway Surface Sewer (375mm/450mm VC) within Wallasey Bridge Road and discharges within proposed development at North-West.
- Electricity – LV, HV (11kV) and EHV (33kV) cables within Eastern footway of Wallasey Bridge Road.
- Gas – 1 no. 75mm LP PE within Eastern footway of Wallasey Bridge Road. 1 no. 315mm MP PE encroaches to North-West of site.

Potentially Affected Utilities

North:
- Potable Water - Distribution Mains (4”/6”) within Northern boundary.

East:
- Electricity - 1 no. LV cable within Eastern boundary.

West:
- Gas – 1 no. 315mm MP PE at North-West.

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, potable water apparatus will need to be diverted. The MP gas main will need to be incorporated within the proposals. No major issues which might constrain the opportunities with this plot.

RAG Status of Existing Utility Apparatus		Commentary	*Minor diversions required.*

Site Visit Photos

Source: Mott MacDonald

Prepared by: C Osborne	*Checked by: John Ingram*	*Approved by: Duncan Crockett*	*Date: 27/01/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

Site ref: EMP-RA6.3 MEA Park

SITE

Area	6.00ha
Location	Beaufort Road, Birkenhead, Wirral, CH41 1EB
Proposed land use	B2 General Industry; B8 Storage or Distribution

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The site is bound by Beaufort Road to the south and West Float dock to the north. It benefits from recent public realm enhancements (i.e. the planting of trees along Beaufort Road).
- Employment sites EMP-RA6.1 Birkenhead Dock Estate and EMP-RA6.2 Former Mobil Oil ate situated to the west of MEA Park. It should be noted that all three of these sites form part of the Wirral Water regeneration initiative (discussed further below).
- Beaufort Road is 30mph with 2-lanes in the eastbound and westbound directions. In addition to a number of laybys, pockets of on-street parking are provided at the eastern section of the road, which are associated with local businesses.
- At the western end, Beaufort Road forms a priority roundabout junction with Wallasey Bridge Road. Wallasey Bridge Road is 30mph with 2 lanes in the northbound and southbound directions. Numerous local businesses are accessed via the route, including the Bidston Household Waste Recycling Centre.
- Both Beaufort Road and Wallasey Bridge Road are both heavily trafficked by HGVs.
- 5-year Road Traffic Collision (RTC) analysis from 2015-2019 indicates 4 incidents along Beaufort Road (2 slight and 2 serious), and 5 along Wallasey Bridge Road (5 slight) in immediate proximity to the development site. Of these slight incidents, 2 on Wallasey Bridge Road involved pedal cyclists, and 1 involved a pedestrian. One other serious pedestrian casualty was recorded on Beaufort Road, at the junction with Wallasey Bridge Road. A number of incidents have been recorded at Laird Street and Stanley Road to the south of the proposed development site.

Vehicular access

- There are two existing access points on Beaufort Road; both located to the east of the junction of Lincoln Street. The most easterly junction is the largest of the two. Note, an active graving dock just to the west of the site and also a substation with both require access from Beaufort Road.

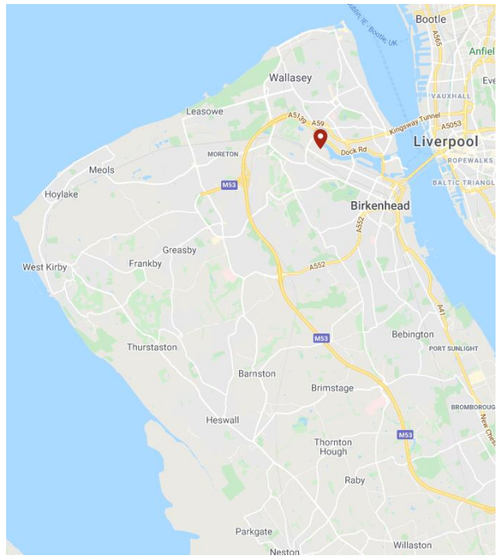
Walking / Cycling connectivity

- Both Beaufort Road and Wallasey Bridge Road are busy HGV routes. In particular, the narrow carriageway, coupled with narrow footways, overgrown vegetation and no dropped kerbs or tactile paving on Wallasey Bridge Road creates a poor, unsafe walking environment.
- The southern section of Wallasey Bridge Road is identified as a 'suggested level 3 route' in the Wirral Cycle Map. However, a number of comments have been made on the Wirral Liveable Streets website, mostly relating to the poor walking/cycling environment. The absence of dropped kerbs, vehicular speeds, footway condition, and lack of lighting/space are common recurring themes.
- No footways are provided along the northern perimeter of Beaufort Road, whereas there are narrow footways along the southern perimeter. Dropped kerbs are provided at local and access junctions, however there are no push-button facilities or tactile paving.
- Reference is however made to APP/20/01298 - Land between Beaufort Road and Wallasey Bridge Road, South of West Float, Wirral Waters. This scheme plans to carry out of public realm works to create a footway / cycleway, associated remediation, removal of sub stations and landscape works on land between Beaufort Road and Wallasey Bridge Road. £920,000 has been secured for delivery by end of 2021 but only up to Bidston Moss. Continuation of the scheme along Wallasey Bridge Road is therefore not included.

Public Transport connectivity

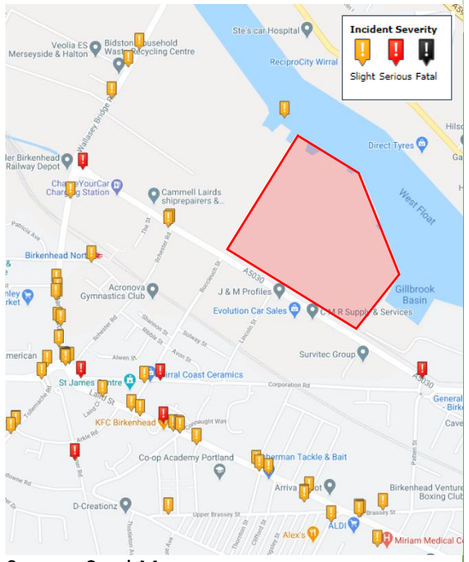
- The site is positioned opposite Birkenhead North rail station, which is situated on the Wirral Line of the Merseyrail network. It is a popular park and ride site with 630 car parking spaces which are free for commuters. The station has adequate lighting column and CCTV, which meet Merseytravel's Travelsafe requirements. In addition to this, there is also safe cycle storage for 12 cycles, and electric-vehicle charge points. A summary of the services and frequencies is provided below:
  - Liverpool Central: 4 services per hour
  - New Brighton: 2 services per hour
  - West Kirby: 2 services per hour

Location



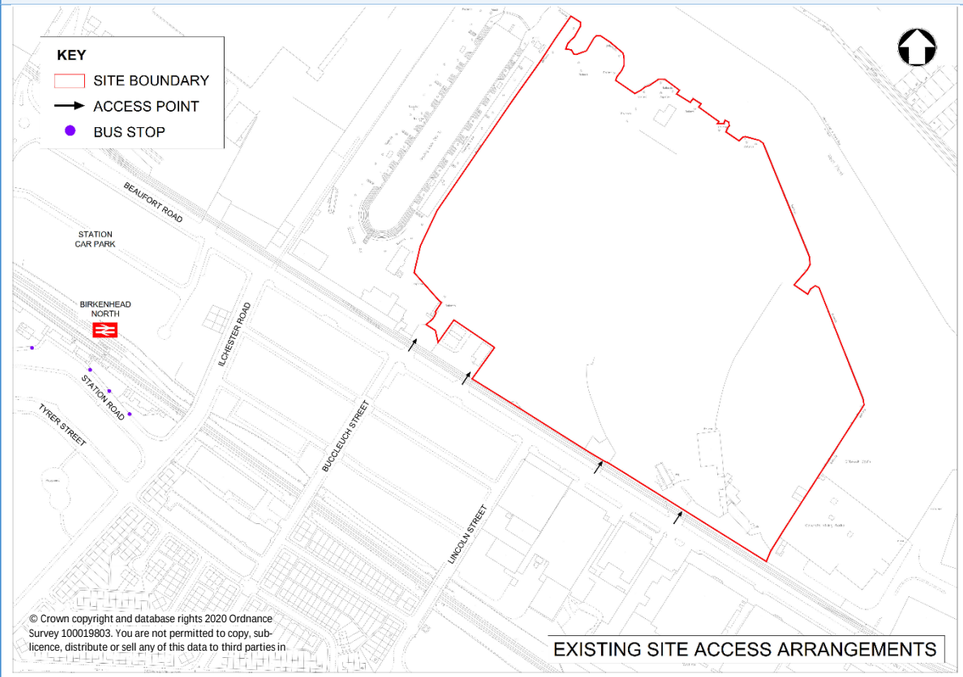
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan *(transport)*



Source: Mott MacDonald

- The closest bus stop is located approximately 650m to the south-west on Station Road, on which there is an entrance to Birkenhead North railway station. The bus stops do not offer any shelter for pedestrians, and services are infrequent:
  - 626, 633: dedicated school services.
- Additional bus stops, providing more frequent services, are situated approximately 500m to the south on Laird Street. They are accessed via a 6-minute walk along Buccleuch Street. These stops are of high quality, and services include:
  - 216/217: Woodside to Woodchurch Circular - 2 services at 07:03 and 07:33
  - 407: Liverpool Cook Street to West Kirby Station – 3 services per hour
  - 418: Birkenhead to New Ferry Circular - 1 service per hour
  - 492/495: Birkenhead to Beechwood Circular – 2 services per hour
  - 658, 698: dedicated school services.
- There is an existing disused railway along the southern perimeter of the site on Beaufort Road.

RAG Status of Existing Transport Scenario		Commentary	Site would sit well within existing context.

PROPOSED SCENARIO

Proposed development and network impact

- The site has been allocated for B2 general Industry or B8 storage or distribution use. It forms part of the Wirral Waters major regeneration proposals, the vision for which is to create a new city waterfront focussing upon the transformation of Birkenhead and Wallasey Docks, and their surrounding areas.
- An outline planning application (OUT/11/00645) has been submitted, and accepted with conditions , for the site.
- Conditions for development of the site include:
  - The submission of a Construction Management Plan for each phase of development;
  - Schedule of Highway Work, including triggers and methods of implementation of infrastructure for pedestrians, cycling, parking, public transport and vehicular traffic, as well as any highway mitigation required.;
  - The submission of a Monitoring Strategy;
  - The submission of an Environmental Statement;
  - The submission of a full Travel Plan.
- Trip generation will be determined by an updated Transport Assessment. The cumulative impact of developing this site, EMP-RA6.2 Former Mobil Oil, and EMP-RA-6.1 Birkenhead Dock Estate should be considered. It should also be noted that Keepmoat Docklands, a residential development, is currently under construction to the south of Beaufort Road. This will need to be included in any cumulative impact analysis.

Trip Generation Analysis

Trip generation will be determined by an updated Transport Assessment.

Comments and assumptions

- The site benefits from good public transport, which will encourage sustainable travel.
- Parking and cycle parking provision will need to conform with the standards provided within the new Local Plan.
- An updated Transport Assessment should be provided for the site, accounting for the cumulative impact of the developing the three aforementioned sites together. Additionally, a Travel Plan and updated masterplan will also be required, and all conditions set out for OUT/11/00645 should be adhered to.

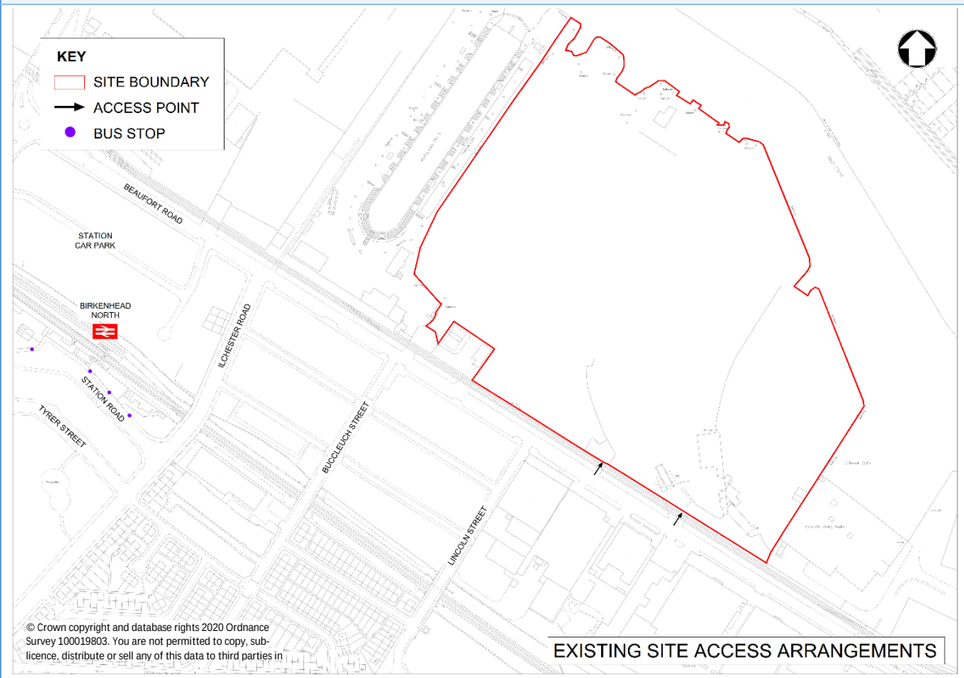
Conclusions and suggested mitigation

Levels of off-site mitigation for redeveloping this site will be dependent upon whether this site is redeveloped as a standalone site, or combined with other Wirral Waters sites. However, below are local infrastructure which should be considered during planning:

- Upgrades to the roundabout junction between Wallasey Bridge Road / Beaufort Road.
- Upgrades to the roundabout junction between Dock Road and Wallasey Bridge Road.
- Footways and carriageways along Wallasey Bridge Road require upgrade.
- Segregated cycleway along Wallasey Bridge Road with toucan crossing to link to the Bidston Moss cycle route.
- Potential to transform disused railway line on Beaufort Road into a high-quality walking and cycling route.
- Potential to incorporate public Transit facility along the disused railway line on Beaufort Road. Note also the proposal (Planning application: APP/20/01298), to provide a high-quality walking and cycling facility within the disused railway corridor.
- Traffic management measures along Beaufort Road to better manage traffic speeds and improve pedestrian and cycle crossing facilities.

Note, depending upon the scale of development, Highways England may need to be consulted on potential impacts to the Strategic Road Network.

Suggested Site Access Arrangement Plan



Source: Mott MacDonald

Cost summary for EMP-RA6.3 • TBD					
Prepared by: J. McManus	*Checked by: Daniel Blakey*	*Approved by: Duncan Crockett*	*Date: 27/01/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

EMP-RA6.3 – MEA Park

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

North:
- Utility apparatus doesn't appear to be within study area.

East:
- Electricity – LV, HV (11kV) and EHV (33kV) within Eastern boundary. Electricity Sub-Station located within proposed development.
- Potable Water, Wastewater and Gas apparatus don't appear to be within study area.

South:
- Electricity – 11kV Electricity Sub-Station adjacent to site boundary.
- Gas – 1 no. LP (**) within proposed development.
- Potable Water and Wastewater apparatus don't appear to be within study area.

West:
- Potable Water – 1 no. 4" CI adjacent to Eastern boundary. 4 no. 4" CI supplies within proposed development.
- Wastewater, Electricity and Gas apparatus don't appear to be within study area.

Potentially Affected Utilities

East:
- Electricity - HV (11kV) and EHV (33kV) cables within proposed development.

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, minor apparatus appears to encroach upon the proposed development. This should not be considered as being an issue as some of the connections may be required for future use. However, the consideration should be given to the 33kV Sub-Station, located to the South-East of the plot. Re-location of such facilities are expensive and time consuming, therefore should be considered as a constraint to the development, to avoid the need to re-locate.

RAG Status of Existing Utility Apparatus		Commentary	*Potential requirement to accommodate 33kV Sub-Station.*

Site Visit Photos

Source: Mott MacDonald

Prepared by: C Osborne	*Checked by: John Ingram*	*Approved by: Duncan Crockett*	*Date: 27/01/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

Site ref: EMP-RA6.4 – Wirral Waters Tower Quay

SITE

Area	0.91ha
Location	Tower Wharf, Birkenhead
Proposed land use	Employment – B2/B8

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The site consists of vacant reclaimed brownfield land with a former use as a dockland site. It has a fenced boundary and requires clearance of shrubbery/foliage
- The site lies within an existing employment area, adjacent to occupied employment sites and an active Ro-Ro ferry terminal to the immediate north-east
- The site is bounded by the A554 Tower Road to the west, Tower Wharf to the south, the Faiveley Transport site to the east and the Ro-Ro ferry terminal to the north
- Tower Wharf runs a two-way single carriageway, connecting to the A554 Tower Road local distributor via a signal-controlled T-junction at the south-west corner of the site. The A554 Tower Road also runs a two-way single carriageway, providing onward connectivity to Seacombe to the north and Birkenhead to the south. (Note, at the time of writing this document Tower Road was closed and being improved with a public realm scheme – as part of these works the signals will be removed
- The Wirral Circular Trail runs along the west and south edges of the site along the A554 Tower Road and Tower Wharf
- There are existing waiting restrictions along all road bounded edges of the site
- Tower Wharf benefits from good street lighting and pavements on both sides, segregated from the road carriageway by verges
- There is an existing off-road bus stop bay on the southern edge of the site
- A 5-year Road Traffic Collision (RTC) analysis (2015-2019) shows no incident clusters around the site or along the north and south approaches along the A554 Tower Road. Two slight incidents have been recorded on Tower Wharf directly, one involving a pedestrian casualty. The analysis indicates that there are no significant road safety issues in immediate proximity to the site
- A total of four comments are noted on the Wirral Liveable Streets website which all address inadequacy of safe walking and cycling infrastructure along the A554 Tower Road bordering the western edge of the site (link, link, link, link)

Vehicular access

- Strategic access is most immediately facilitated via a signal-controlled T-junction which connects Tower Wharf with the A554 Tower Road local distributor
- All roads mentioned provide two-way single carriageway access
- There is currently no access infrastructure onto the site itself from Tower Wharf
- A potential access on the southern edge of the site onto Tower Wharf would likely comply with visibility splay requirements, if located between the existing access to the Contact Company site access and the bus stop bay

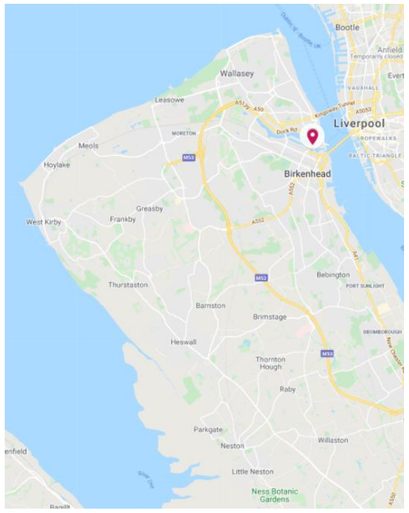
Walking / Cycling connectivity

- Morpeth Wharf benefits from pavements along both sides, segregated from the road carriageway by verges
- Non-tactile dropped-kerb access is provided across Tower Wharf at the southern centre of the site, while the adjacent access to the Contact Company site benefits from tactile dropped kerb crossing facilities
- Active travel connectivity across the A554 Tower Road to the immediate west is facilitated only be pedestrian islands providing a staggered crossing of the otherwise signal-controlled T-junction
- Pavements within the area are well lit by street lighting
- The site benefits from strong cycling connectivity, with Tower Wharf lying on the Wirral Circular Trail which provides onward cycling connectivity around the Wirral Coast
- Marked on-road cycle lanes along the A5029 Rendel Street also provide cycling connectivity into Central Birkenhead
- However, a potential lack of safe cycling infrastructure is noted along the A554 Tower Road itself

Public Transport connectivity

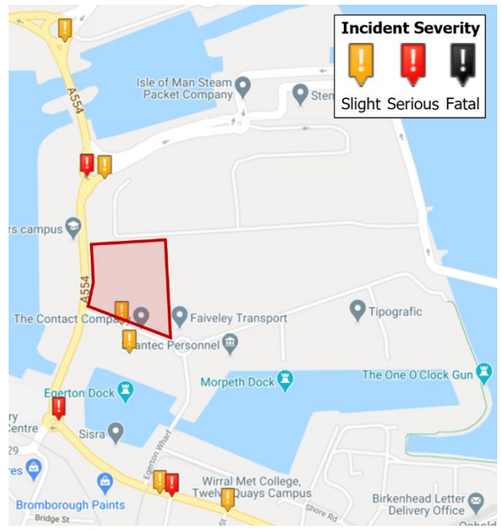
- The nearest exiting bus stops are located on the A554 Tower Road to the immediate south-west of the site
- Good quality pavements connect these to the site, however, although the pair of bus stops are located by the A554/Tower Wharf signalised junction, the junction does not offer signalised crossing facilities. Islands are instead offered to allow uncontrolled staggered road crossings

Location



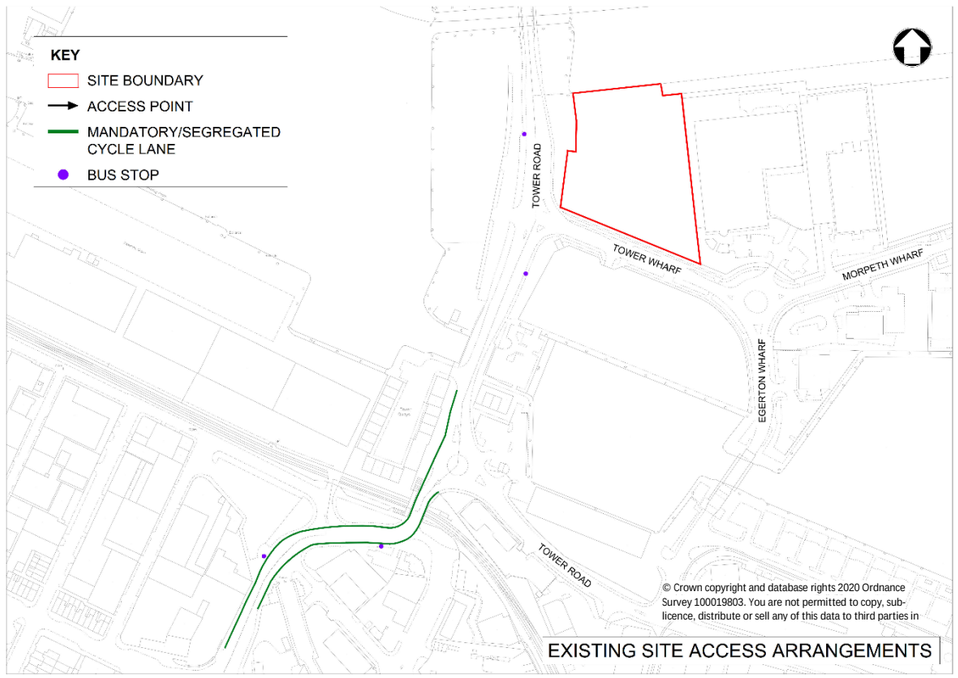
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan *(transport)*



Source: Mott MacDonald

PROPOSED SCENARIO

- Routes serving the bus stops provide access to locations including Birkenhead, Eastham Rake, Leasowe, Liverpool, Moreton, Wallasey and Woodside
- Hamilton Square is the nearest rail station at an approximate 10-minute walk from the site via pavements along Tower Wharf and Egerton Wharf but lacking signalised crossing of the A554 Canning Street to the south before continuing into central Birkenhead. The station benefits from 12 secure cycle parking spaces and is wheelchair accessible. It provides strong rail connectivity to the following lines
  - Liverpool Central – New Brighton
  - Liverpool Central – West Kirby
  - Liverpool Central – Ellesmere Port
  - Liverpool Central – Chester
- As part of the Wirral Waters East Float regeneration initiative, a Streetcar tram based system is being proposed. The first is planned as an extension to the existing heritage tram line at Canning Street, run along Egerton Wharf and Tower Wharf and terminate on Tower Road. No timescales are currently available for implementation.

RAG Status of Existing Transport Scenario		Commentary	No significant issues were noted at this site. Site appears well suited for employment uses

Proposed development and network impact

- Current assumptions are to develop approximately 40% of the 0.91ha net developable area with B2/B8 use class buildings. This results in a 0.36ha (3,640sqm) building GFA
- Applying this to trip rate factors generated within the TRICS database, indicates the likely AM and PM peak trip generation shown to the right
- This trip generation anticipated to be incurred by the development is not expected to have a material impact on the operation of the surrounding road network
- It should also be noted that an additional 01.36ha employment site has also been included in the Local Plan which would likely also be accessed via Tower Wharf

Comments and assumptions

- There is currently no access infrastructure onto the site itself. This should be provided from Tower Wharf, however, should not align with the existing access into the Contact Company site to the south. Avoiding also the bus stop bay, it is recommended the access be located between the two to stagger the otherwise cross-junction with the Contact Company site access
- The area surrounding the site could change significantly over coming years due to the following initiatives:
  - At the time of compiling this document, Tower Road was being upgraded to include a comprehensive public realm scheme. This should improve pedestrian and cycle accessibility of the site, but the access to the site will need to coordinate with the new highway scheme;
  - Land to the west of Tower Road is part of the Wirral Waters development initiative, and hence new land uses are planned which will change the nature of the area;
  - Also associated with Wirral Waters, there is proposal for an extension to the heritage tram line along Tower Wharf and Tower Road.

Conclusions and suggested mitigation

Summary of issues:

- The development proposals for the site will need to coordinate with a number of other proposed and recently implemented schemes – including the Tower Road public realm improvements, and Wirral Waters Streetcar.

Recommendations:

- Requires site access infrastructure
- Footways and road crossings in the vicinity of the site will require review to ensure coordination with the Tower Road scheme

Cost summary for RA6.4:

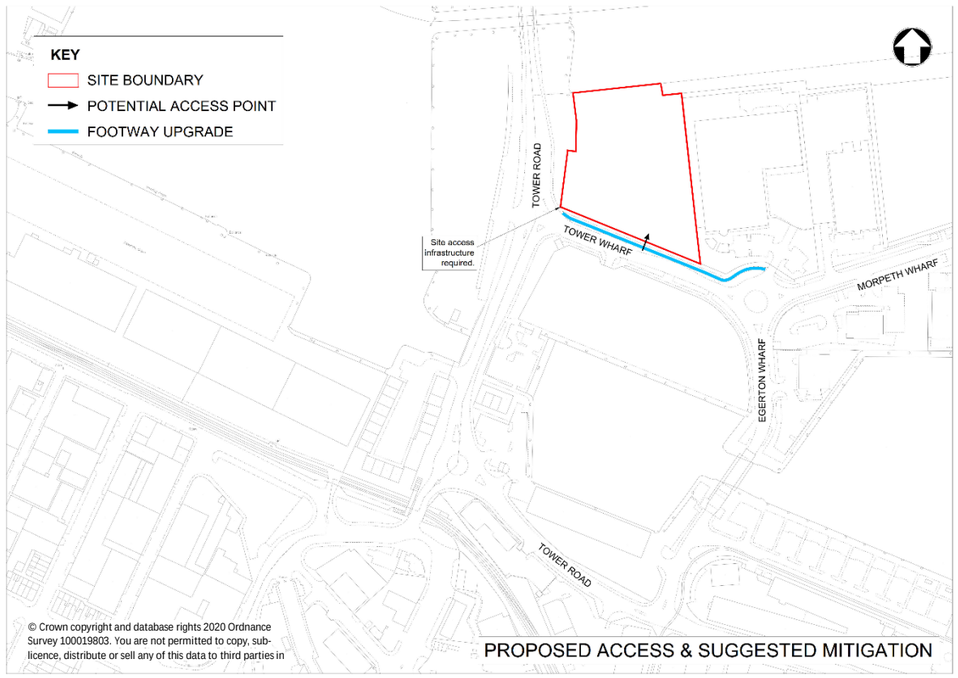
- Site access: £50, 000 - £75,000
- Footway upgrades: £10,000 - £20,000

Trip Generation Analysis

Time Period	Trip Rates* *(per 100sqm GFA)*			Trip Generation *(rounded)*		
	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	14	3	18
PM peak (17:00-18:00)	0.088	0.340	0.428	3	12	16

**Trip rates derived from TRICS surveys for land use: 'Employment – Industrial Unit'*

Possible Site Access Arrangement Plan



Source: Mott MacDonald

Prepared by: *D Blakey*	Checked by: *J McManus*	Approved by: *D Crockett*	Date: 02/12/2021	Project Details	Wirral Local Plan Support: Additional sites review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus
North: • Utility apparatus doesn't appear to be within study area. East: • Electricity – 1 no. HV (11kV) cable adjacent to Eastern boundary. • Potable Water, Wastewater and Gas apparatus don't appear to be within study area. South: • Potable Water – 1 no. 200mm PE within Tower Wharf. • Wastewater – 1 no. Foul Sewer (225mm VC) and 1 no. Highway Surface Water Sewer (600mm Concrete) within Tower Wharf. • Electricity – HV (11kV) cables within Tower Wharf. • Gas – 1 no. 250mm LP PE within Tower Wharf. West: • Potable Water – 1 no. 160mm PE within Eastern footway of Tower Road. • Wastewater – 1 no. Highway Surface Water Sewer (450mm Concrete) and 1 no. Foul Sewer (225mm VC) within Eastern footway of Tower Road. Electricity and Gas apparatus don't appear to be within study area.
Potentially Affected Utilities
None.
Conclusions and suggested mitigation
This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas. Based on the information obtained, no diversions appear to be required

RAG Status of Existing Utility Apparatus		Commentary	*Utilities don't appear to be affected.*

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 01/12/2021*	Project Details	Wirral Local Plan Support: Additional sites review

Site ref: EMP-RA6.5 – Maritime Knowledge Hub

SITE

Area	0.95ha
Location	Tower Road, Birkenhead, CH41 1AA
Proposed land use	Employment

TRANSPORT – EXISTING SCENARIO

Existing highway network

- Currently, the site is occupied by a disused hydraulic tower, formerly used to power the dock entrances.
- The site is located on the western side of the roundabout of the A554 Tower Road and the Stena Line Ferry Terminal access.
- The existing access to the site is from this roundabout, but it is barriered off as there are no current active uses. Tower Road is a 30mph, single-carriageway road currently, but a new 20mph speed limit is proposed along Tower Road.
- The site is bound by Tower Road to the east, East Float to the west and north, and Wirral Met College to the south.
- There is no on-street parking available in the area around the development site.
- The site does not currently have any formal roads within it.
- All roads within the immediate vicinity of the proposed development site are well lit, with adequate amounts of lighting columns.
- Gradient across the site is flat.
- The site is located within the Wirral Waters regeneration initiative. Local shops and amenities are located in Birkenhead, around one mile to the south of the site. Tower Road connects with Birkenhead Road and Dock Road to the north, providing links to Seacombe, Liscard and also access to the M53 motorway and the Kingsway Mersey Tunnel. To the south, Tower Road connects to Canning Street giving access to Birkenhead town centre and the A41, a major road which links settlements along the eastern coast of the Wirral. The Kingsway and Queensway Tunnels, which directly connect to Liverpool City Centre, are located about one mile to the north and south of the site respectively.
- 5-year Road Traffic Collision (RTC) analysis from 2017 to 2021 shows one slight incident in the immediate vicinity of the site, on the roundabout of Tower Road and the Ferry Terminal entrance/exit. There also appears to be a cluster of collisions to the south of the development site, around Tower Wharf. Given the low frequency of RTCs over the 5-year period, it is deemed that there are no significant road-safety issues within the proximity of the site.
- Two comments have been noted on the Wirral Liveable Streets website regarding Bromborough Road:
  - Regarding the shared use path on Birkenhead Road: "*The shared use path along here could be improved by giving cyclists and walkers priority at junctions (path crossed by a lot of little used side streets) and sorting out the tree/bench/bus stop combination that blocks the path.*"

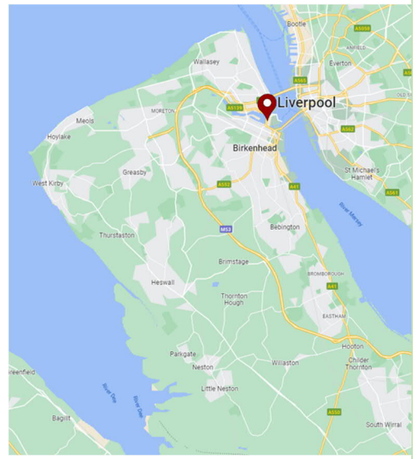
Vehicular access

- The existing site can be accessed via the roundabout on Tower Road with the Stena Line Ferry Terminal, although at present this is not properly surfaced. This roundabout can be very busy and suffer from congestion when a Belfast ferry has arrived, and vehicles (predominantly articulated HGV's) are unloading from it. The greater majority of vehicles exit the ferry terminal and turn right (northwards) towards the M53 where congestion tends to occur at the signalised roundabout of Birkenhead Road / Dock Road due to limited space for vehicles to stack.
- The most significant congestion occurs when the lifting bridge just north of the site is raised to let a ship in or out of East Float docks. This tends to cause lengthy tailbacks in all directions as there are no readily accessible alternative routes.
- The access point on Tower Road benefits from good visibility.

Walking / Cycling connectivity

- All footpaths in the vicinity of the site benefit from adequate lighting. Footways have recently been resurfaced and are in good condition with adequate width. The exception is along the site frontage of Tower Road, which is made of old concrete paving slabs and are damaged and cracked in places.
- The shared use path on Tower Road stops just north of the roundabout with the ferry terminal access, on both the eastern and western side of the road. This means cyclists are forced on to the highway at a busy junction.

Location

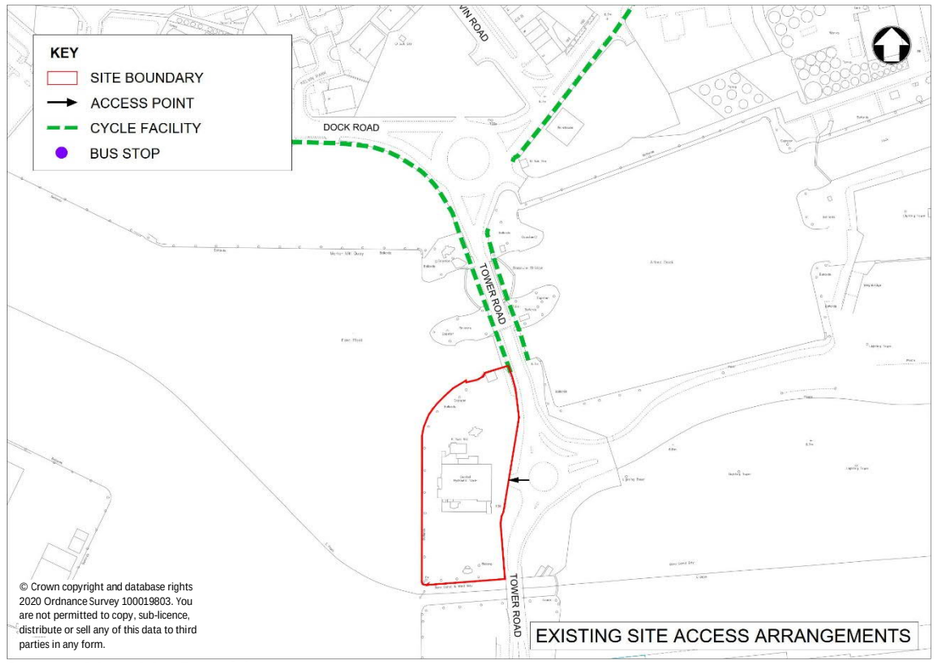


Source: Google Maps

5-Year Accident Analysis

Source: CrashMap

Site Plan *(transport)*



Source: Mott MacDonald

TRANSPORT

EXISTING SCENARIO

- North of the lifting bridge, the walking and cycling shared use facilities split onto three routes. One along the north of Alfred Dock forming part of the very popular Wirral Circular Trail; one along Birkenhead Road to the Seacombe Ferry Terminal (proposed to be upgraded to provide a fully segregated cycle route in the near future); and a high quality one along the east side of Dock Road linking to existing facilities on Duke Street.
- To the south of the site, the Wirral circular trail runs along Tower and Morpeth Wharf to the Mersey riverside, giving a link southwards to Woodside and Birkenhead.
- Comments on the Wirral Liveable Streets websites noted that there can be conflicts between cyclists and vehicles exiting the ferry terminal, especially HGVs, which perhaps aren't expecting to encounter cyclists and do not realise it is public highway rather than the port.
- To the north of the site is a three-arm roundabout (A554 Tower Road / A554 Birkenhead Rod / A5139 Dock Road), where there are uncontrolled pedestrian crossings on each arm.
- To the south of the proposed development site, Tower Road has recently been upgraded to significantly reduce road space and increase space for footways and landscaping giving good quality public realm in the vicinity of the Wirral Met College and the Hythe – a recently completed office building.

Public Transport connectivity

- Conway Park is the closest rail station to the site. It lies on the West Kirby and New Brighton branches of the Wirral Line, and is situated approximately 1km to the south of the site (a 15-minute walk). The station provides services to:
  - West Kirby – 3 services per hour
  - Liverpool Central – 6 services per hour
  - New Brighton – 3 services per hour
- Bus stops are located on Birkenhead Road, approximately 320m north of the proposed development site (a 3-minute walk), and on Tower Road 170m south of the proposed developed. Both bus stops provide access to the following services:
  - 409: Wallasey – Woodside
  - 411: New Brighton - Birkenhead

RAG Status of Existing Transport Scenario		Commentary	No major issues were noted at the site.

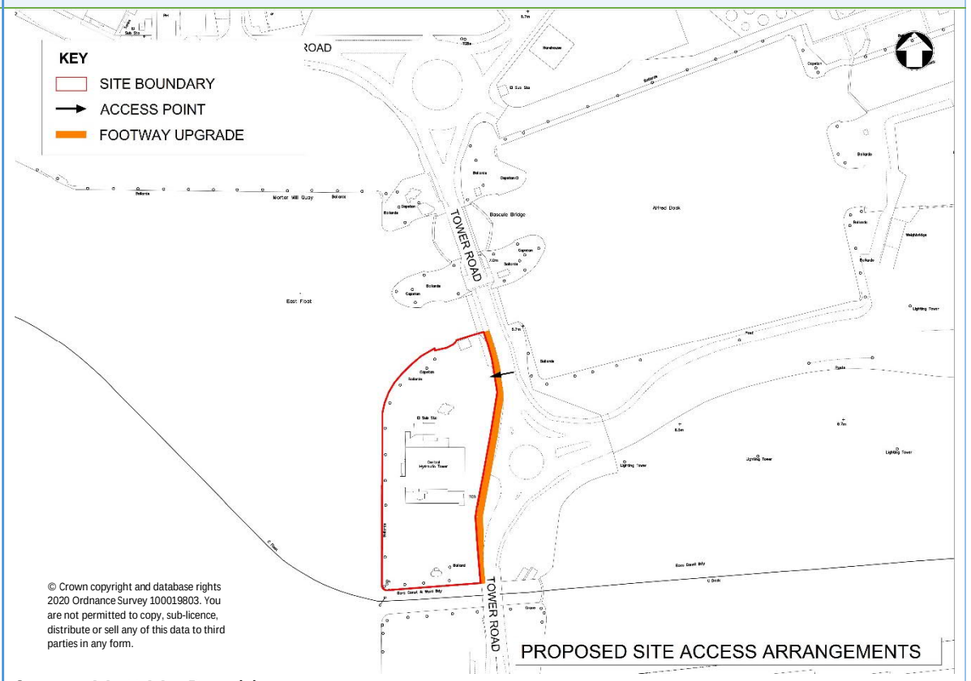
PROPOSED SCENARIO

Proposed development and network impact

- The site has been identified for small-scale non-residential use. The proposed development covers 1-1.5ha or up to 3,500sqm.
- The masterplan for the site indicates around 36 on-site car parking spaces. Even if all spaces were occupied / vacated within a one hour period, this should not result in any significant traffic impact.
- However, trip generation analysis should be revisited and explored upon compilation of the Transport Statement for the proposed development. At this time, more details will be known of the usage of the building and its propensity to generate significant volumes of car trips – possibly resulting in overspill to surrounding areas.
- The Transport Statement should be accompanied by a Travel Plan.

Trip Generation Analysis

	Trip Generation *(rounded)*		
Time Period	Arr	Dep	2-way
AM peak (08:00-09:00)	36	0	36
PM peak (17:00-18:00)	0	36	36

Comments and assumptions	Proposed Site Access Arrangement Plan
• Parking provision needs to be provided in line with the Car Parking Standards in the Draft Local Plan. • A Transport Statement and Travel Plan Framework will be required for the site. • A Construction Management Plan be required for the site.	 Source: Mott MacDonald
Conclusions and suggested mitigation	
• Due to the location of the development site adjacent to the dock, access to the site can only be achieved on Tower Road. The existing roundabout offers the most suitable access. However, it is noted that the space between the roundabout and the front of the hydraulic tower is limited and alternative locations may need to be explored. • A visibility splay is required at the site access junction on Tower Road to ensure it complies with Manual for Street standards. • Document. There is no scope for providing on-street parking within the immediate vicinity. • The existing cycle route across the bridge on Tower Road should be extended to provide improved cycle facilities on the roundabout to improve safety for cyclists. • Covered and secure cycle parking should be included within the proposed development. • The footway along the site frontage with Tower Road should be upgraded to at least the same standard as that just north of the site. This upgrade will need to include street lighting as well. Cost estimate for off-site works for site ref: EMP-RA6.5: • Upgrade of footway adjacent to site frontage: £50,000 to £100,000 • Upgrade of street lighting along site frontage (5x columns): £15,000 • New site access to Tower Road (£100,000 to £150,000)	

Prepared by: Hannah Smith	Checked by: *Duncan Crockett*	*Approved by: Duncan Crockett*	*Date: 12/04/2022*	Project Details	Wirral Local Plan Support: Additional sites review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

- Electricity – Based upon the information received, utility apparatus does not appear to be within the site boundary however it is key to note that there is a substation identified on both Google maps and the OS mapping but the asset owner has not been identified. This may require further investigation.
- Gas - Based upon the information received, utility apparatus does not appear to be within the site boundary
- Potable Water - Based upon the information received, utility apparatus does not appear to be within the site boundary
- Waste Water – United Utilities 225mm Foul Water Sewer and 450mm Surface Water Sewer
- Telecoms – BT Openreach Cable(s)/Duct(s)

Potentially Affected Utilities

- 1 no. 225mm Foul Water Sewer and 1 no. 450mm Surface Water Sewer
- BT Openreach Cable(s)/Duct(s)

Conclusions and suggested mitigation

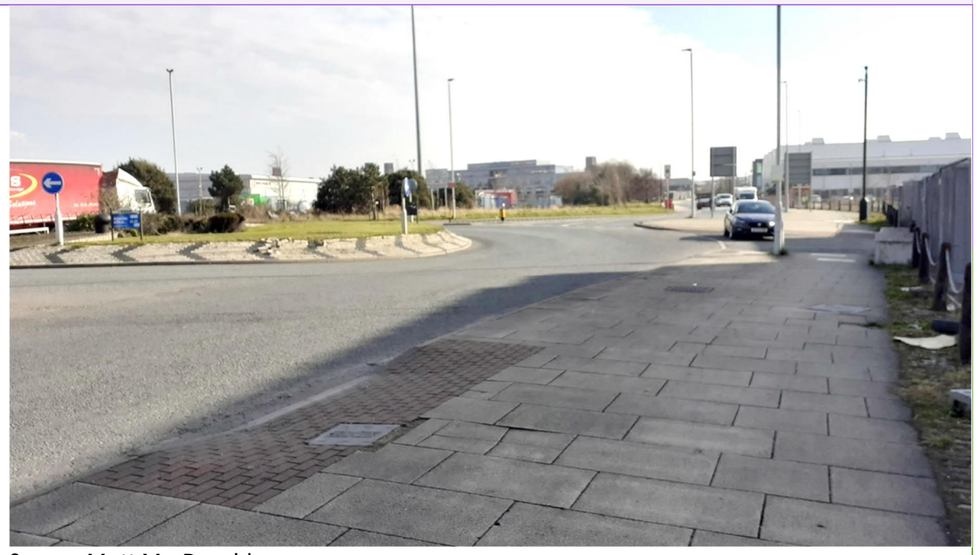
This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, it is to be recommended that liaison with United Utilities to determine if Foul Water and Surface Water Sewer are still live.
Similarly, liaison with BT Openreach to determine if this connection is still required as building is abandoned.

The requirement and financial implications to provide new services for the proposed development including electricity, gas, water and telecoms has not been considered at this stage and it is recommended that this is undertaken by the developer.

RAG Status of Existing Utility Apparatus		Commentary	*Potential diversion or abandonment of utility apparatus and further investigation of the identified substation*

Site Visit Photos



Source: Mott MacDonald

Prepared by: E Bonner	*Checked by: S Alexander*	*Approved by: S Alexander*	*Date: 22/04/22*	Project Details	Wirral Local Plan Support: Additional sites review

Site ref: EMP-RA7.1 - Kern's Warehouse

SITE

Area	0.88ha
Location	Cleveland Street, Birkenhead, Wirral
Proposed land use	B2 General Industry; B8 Storage or Distribution

TRANSPORT – EXISTING SCENARIO

Existing highway network

- The area surrounding the site is largely industrial and is bound by A5030 Cleveland Street to the north and Cavendish Street to the west. The two roads form part of a 4-arm roundabout northwest of the site, along with Corporation Road (north arm) and A5030 Corporation Road (west arm).
- A5030 Cleveland Street has a 30mph speed limit, with one traffic lane in both the eastbound and westbound directions, with street lighting present along its entirety.
- There are currently no waiting restrictions alongside the site. None are present on this section of Cleveland Street, except to provide junction protection and outside of the residential properties within close proximity of the Cleveland Street/Duke Street signalised junction to the east. There are however bi-directional mandatory cycle lanes, but these do not alleviate on-street parking on Cleveland Street.
- Access to the A59 and Kingsway Tunnel is provided via travelling east on Corporation Road and north on Duke Street.
- There are no key amenities in immediate proximity to the site, however an Aldi supermarket is located approximately 600m to the southwest.
- A 5-year Road Traffic Collision (RTC) analysis (2015-2019) shows one serious on the immediate surrounding road network, and a cluster of collisions (4 slight and 1 serious) at the Duke Street/Cleveland Street junction. It should be noted that none of these incidents involved vulnerable road users (pedestrians and cyclists). There has been, however, a slight incident involving a cyclist at the Beaufort Road/Corporation Road junction and a serious incident involving a pedestrian on Duke Street between Cleveland Street and Corporation Road. It is concluded that there are no significant road safety issues within close proximity to the site.

Vehicular access

- There is an existing access on the northern side of the development site situation on Cleveland Street and another existing access on the western side via Cavendish Street. The western access is situated approximately 40m south of a 4-arm roundabout, so this should be considered during visibility assessment.

Walking / Cycling connectivity

- There is no Sustrans-recognised cycle route in close proximity to the site. There are bi-directional mandatory cycle lanes on Cleveland Street that are not protected by waiting restrictions. Because of this, vehicles park in these cycle lanes which has resulted in residents commenting as below in Wirral Liveable Streets;
  - "What's the point of having a cycle lane if cars park in it!". (link)
  - "There is a cycle path on the Cleveland St, but where it changes from a solid to broken line is nearly always parked up with cars". (link)

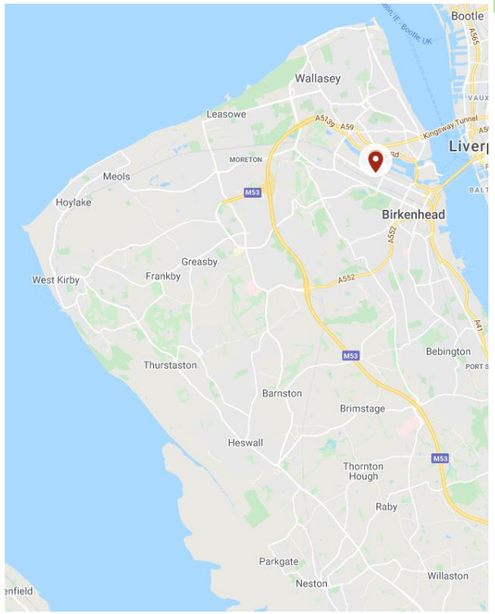
  These cycle lanes are not recognised within the Wirral Cycle Map as on-road cycle lanes.
- There are wide footways along both sides of Cleveland Street and Cavendish Street which have adequate street lighting. Dropped crossings and tactile paving are not provided at all accesses/breaks in footway along these roads. However, pedestrian and cyclists crossing facilities are present at the Cleveland Street/Cavendish Street/Corporation Road roundabout.

Public Transport connectivity

- Two bus stops exist directly to the north of the site on Cleveland Street allowing travel by bus to the east and west. However, there are no dedicated bus bay markings at these stops and the only service is the 811 – Leasowe to Broughton, of which services are infrequent. The closest bus stops with more frequent services are located 500m south of the development site on Park Road North. These stops are served by the; 216, 217, 407, 418 and 437 services.
- Birkenhead Park is the nearest rail station at an approximate 7-minute walk from the site via pavements along Cleveland Street and Duke Street. Tactile paving and dropped crossings are not present at all junctions on this route. The station provides strong connectivity to; West Kirby, New Brighton and Liverpool. Users are also able to change at Hamilton Square to access Ellesmere Port and Chester.

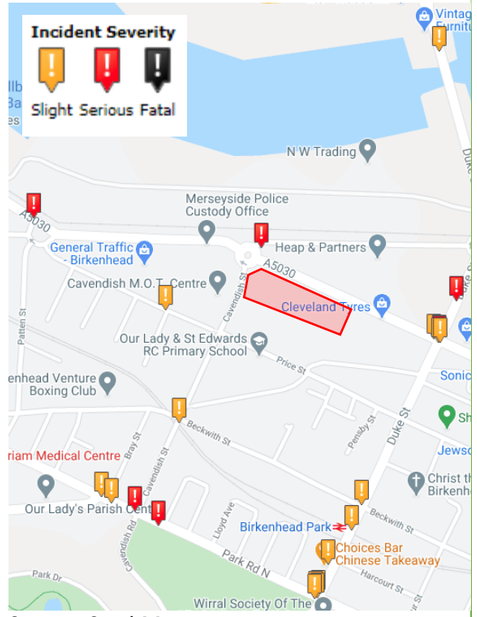
RAG Status of Existing Transport Scenario		Commentary	No significant issues were noted at this site.

Location



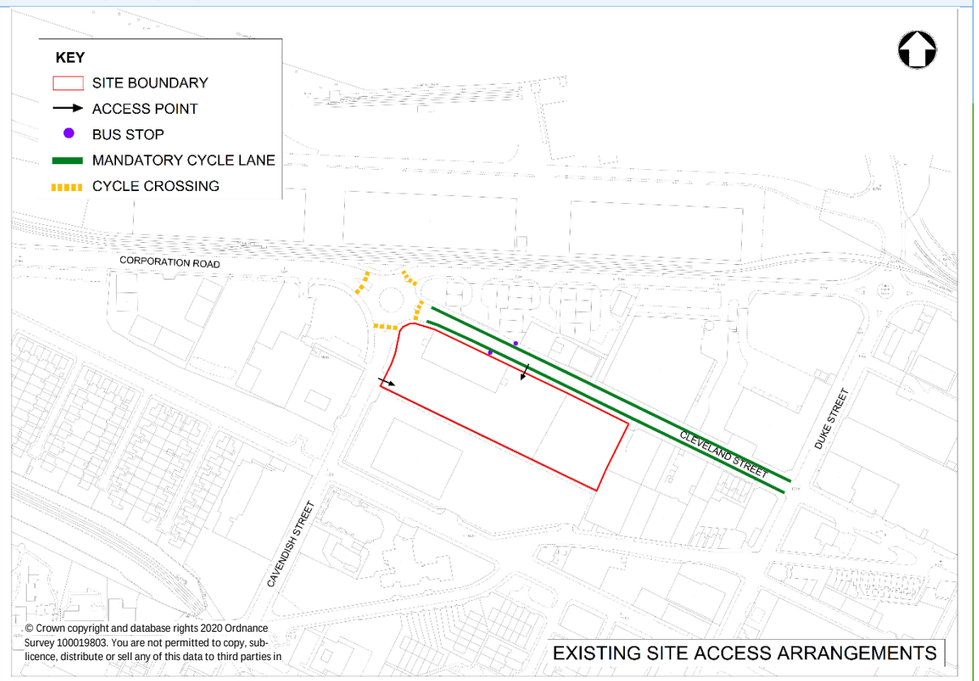
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan *(transport)*



Source: Mott MacDonald

PROPOSED SCENARIO

Proposed development and network impact

- Current assumptions are to develop approximately 40% of the 0.88ha net developable area with B2/B8 use class buildings. This results in a 0.35ha (3,520sqm) building GFA.
- Applying this to trip rate factors generated within the TRICS database, indicates the likely AM and PM peak trip generation shown in the adjacent table.
- This number of trips anticipated to be generated by the proposed development is not expected to have a material impact on the operation of the surrounding road network.

Trip Generation Analysis

	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	14	3	17
PM peak (17:00-18:00)	0.088	0.340	0.428	3	12	15

Comments and assumptions

- Whilst there is no on-street parking provision provided along Cleveland Street, numerous vehicles stop on the carriageway. Vehicles parked in the cycleway on Cleveland Street is common.
- Parking proposals should adhere to the standards set out within the new Local Plan.
- A Transport Statement is required to confirm access points to the site.

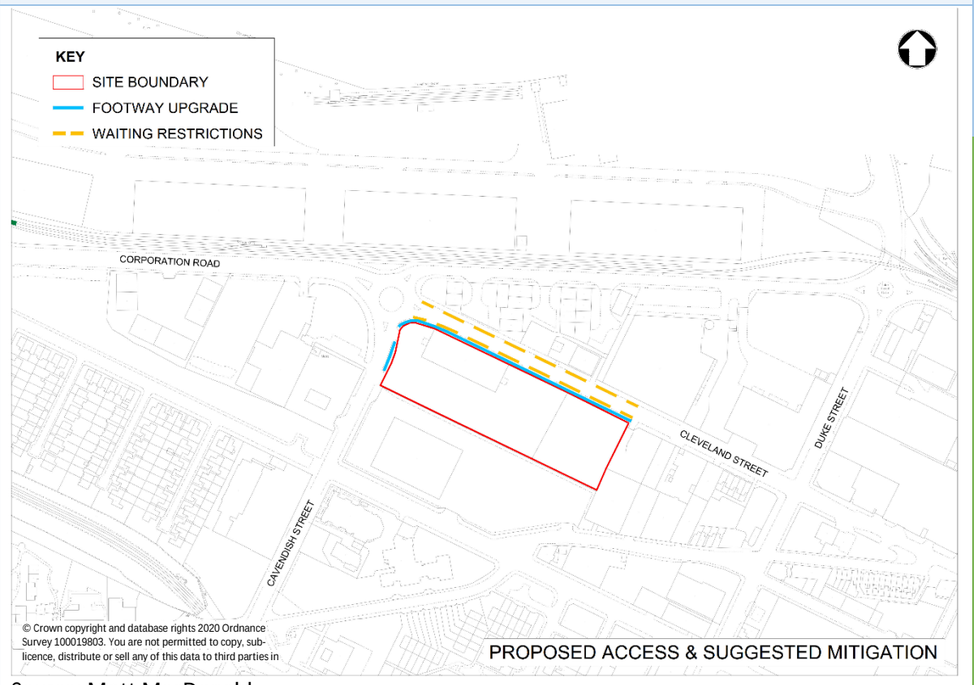
Conclusions and suggested mitigation

- Site access improvement, including dropped kerbs and tactile paving.
- Waiting restrictions on Cleveland Street to combat on-street parking. In turn, this would create a better environment for cyclists.
- Redundant access points should be made good to footway.
- Footways should be refurbished adjacent to the site to make good damage during construction of the new use.

Cost summary for EMP-RA7.1:

- Site access improvement: £10,000 - £20,000
- Waiting restrictions: £5,000 - £10,000
- Footway improvements: £10,000 - £20,000

Proposed Site Access Arrangement Plan



Source: Mott MacDonald

Prepared by: J. Harvey	*Checked by: J McManus*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

North:

- Potable Water – 2 no. Distribution Mains (6" uPVC and 280mm PE) within Cleveland Street.
- Wastewater - 1 no. Combined Sewer (150mm VC and 375mm VC) within Southern footway of Cleveland Street, and within Cleveland Street, respectively.
- Electricity – 2 no. LV cables within Southern footway of Cleveland Street.
- Gas – 1 no. 125mm LP PE supply into proposed development.

East:

- Utility apparatus doesn't appear to be within study area.

South:

- Utility apparatus doesn't appear to be within study area.

West:

- Potable Water – 1 no. 140mm PE within Cavendish Street.
- Wastewater – 1 no. Combined Sewer (800mmx950mm Brick) within Cavendish Street.
- Electricity and Gas apparatus don't appear to be within study area.

Potentially Affected Utilities

None.

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, no diversions appear to be required.

RAG Status of Existing Utility Apparatus		Commentary	*Utilities don't appear to be affected.*

Site Visit Photos

Source: Mott MacDonald

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

Site ref: EMPSA3.1 - Former Training Ground

SITE

Area	1.28ha
Location	Valley Road, Birkenhead, Wirral
Proposed land use	Employment – B2/B8

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The site is bound by Valley Road to the south, an unnamed access road to the east, and Wirral Tennis and Sports Centre facilities to the north and west. It is a greenfield site which currently consists of overgrown vegetation. It is situated on the western fringe of the Valley Road Business Park.
- Valley Road is two way, with a single road in the eastbound and westbound directions, which runs parallel to Wildbrook Drive – a residential street. It connects Valley Road Business Park with the A553 Hoylake Road via a 4-arm signalised junction to the southeast of the development site. From the east to the west, the gradient along Valley Road increases, levelling out when it meets Hoylake Road. Valley Road is a cul-de-sac of approximately 500m in length to the gated entrance of the Business Park.
- There are a number of junctions off Valley Road which facilitate access to different sections of the Wirral Tennis and Sports Centre.
- Approximately 850m to the north, the A553 connects with the M53 junction 1, which provides further links to Liverpool to the east, and Ellesmere Port and Chester to the south. On a wider scale, the M54 also connects with the wider Strategic Road Network.
- The site benefits from an adequate number of lighting columns.
- A 5-year Road Traffic Collision (RTC) analysis indicates 2 slight incidents on Valley Road, and 2 (1 slight, 1 serious) at the junction between Valley Road / Hoylake Road. A cyclists was involved in 1 of the incidents along Valley Road, as well as one at the aforementioned junction. Both of these RTCs also involved a child. In addition to this, the serious RTC recorded at the junction between Valley Road / Hoylake Road involved a motorcyclist. However, given the low frequency of RTCs over the 5-year period, it is deemed that there is no issue in relation to road safety adjacent the proposed development site.

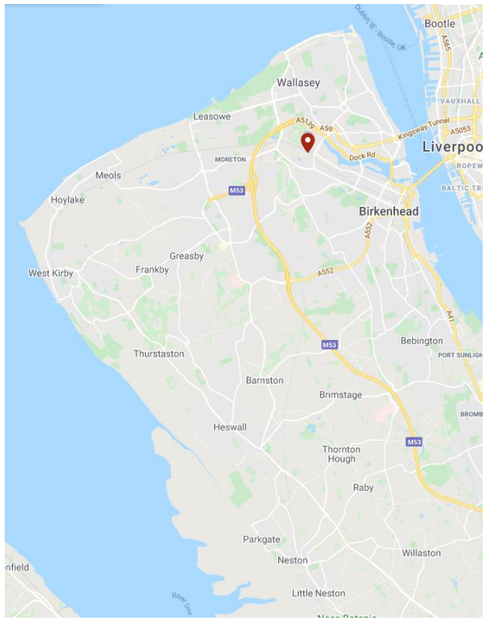
Vehicular access

- There is a maintenance road of unknown ownership which runs along the western perimeter of the development site. This junction is situated approximately 65m to the west of the priority roundabout which facilitates access to Valley Road Business Park. In addition to this, there is another access junction on the southern perimeter of the site, situated approximately 10m to the west of the aforementioned roundabout.

Walking / Cycling connectivity

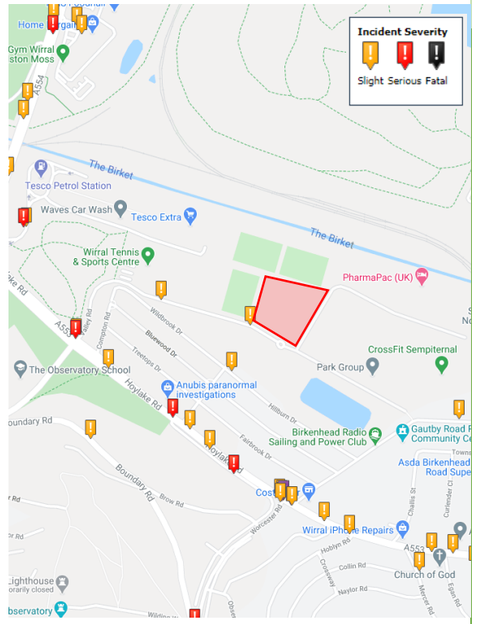
- There is a narrow footway on the southern perimeter of Valley Road, with vegetation overgrowth spilling onto the path. There is no footway at along the northern perimeter, except for a small stretch adjacent the car park associated with the sports centre football pitches. However, there are no dropped kerbs linking the northern and southern footways at this point, or anywhere close to the development site.
- There is a zebra crossing at the eastern end of Valley Road, facilitating a link between the residential properties at Wildbrook Drive/Compton Road to the south and a network of public rights of way (PROW) and a Tesco foodstore to the north. Guardrail separates Valley Road and Wildbrook Drive.
- Push button facilities are provided on all arms, excluding Hoylake Road west, at the junction between Valley Road / Hoylake Road, complete with tactile paving, dropped kerbs and pedestrian refuge islands.
- To the east of the Business Park there is a gated pedestrian access to Gautby Road, but it is not known if this access is open to all people. If it is, the route would provide a shorter walking distance to Birkenhead North rail station (650m).
- National cycle network (NCN) route 56 runs to the west of the site. Locally, it links Bidston with Upton, and, on a wider scale, links Chester with Wallasey and Liverpool via the Mersey Ferry and a mixture of on-and-off road routes.
- A shared-use path is provided along the southern perimeter of Hoylake Road West. In addition to this, Wildbrook Drive is described as an on-road signed cycle route in the Wirral Cycle Map, linking with off-road cycle paths associated with NCN 56 to the east, and Bidston Moss to the north. Hoylake Road is also identified as a 'suggested route level 3 – busier roads'.
- One comment has been noted on the Wirral Liveable Streets website regarding the lack of cycle infrastructure along Hoylake Road. The comment notes issues with on-street parking and a lack of signage.

Location



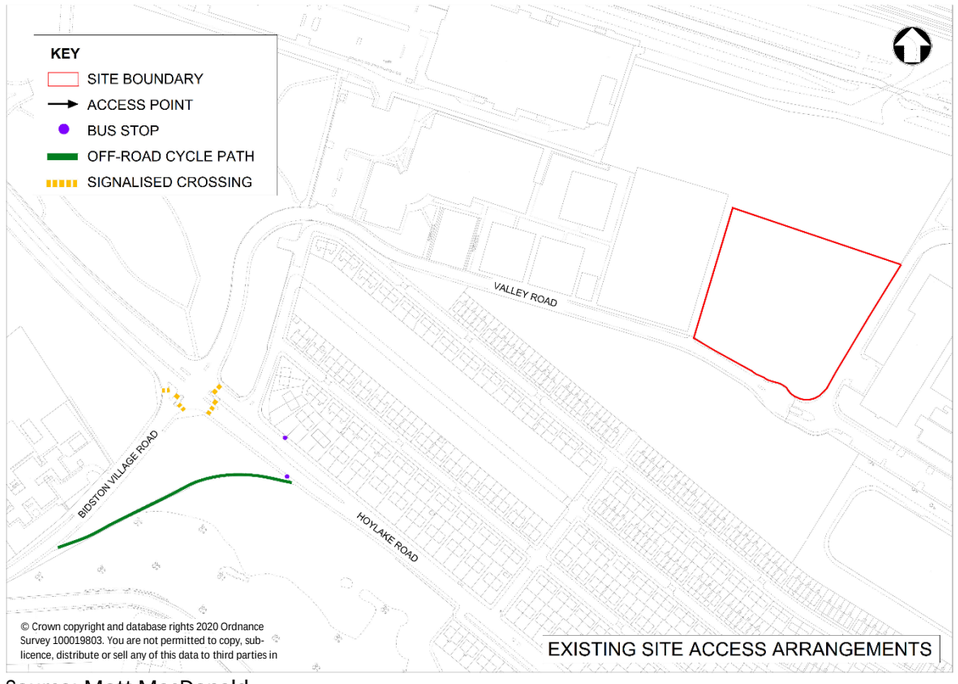
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan



Source: Mott MacDonald

PROPOSED SCENARIO

Public Transport connectivity

- The site is situated approximately 1km east of Bidston railway station, accessible via an 11-minute walk on Hoylake Road. The station has provision for 198 vehicles, as well as secure cycle parking for up to 28 bicycles. Blue badge parking is available for up to 10 vehicles, however there is no wheelchair/pram accessibility at the station. It is situated on the Wirral Line of the Merseyrail network, and provides the following services:
  - Liverpool Central – 2 services per hour
  - West Kirkby – 2 services per hour
  - Wrexham General– 1 service per hour
- The closest bus stop is located approximately 600m to the south-west on Hoylake Road, adjacent Compton Road. It is accessed via a 7-minute walk along Valley Road, and is served by the following services:
  - 38A/38 gold: New Ferry, Bromborough, Mill Park or Eastham Ferry to West Kirby: 2 services per hour
  - 407: Liverpool Cook Street – West Kirby Station: 3 services per hour
  - 418: Birkenhead to New Ferry Circular – 1 service per hour
  - 495: Birkenhead to Beechwood Circular – 2 services per hour
  - 608, 628, 633, 658, 696, 698, 703, 811: dedicated school services.

RAG Status of Existing Transport Scenario		Commentary	Site would fit well within existing land uses, but public transport accessibility is limited due to walk distance and gradient changes.

Proposed development and network impact

- The site has been allocated for B2/B8 uses.
- Current assumptions are to develop approximately 40% of the 1.28ha net developable area with B2/B8 use class buildings. This equates to 0.51ha (5,120sqm) of building gross floor area (GFA).
- Applying this to trip rate factors, generated within the TRICS database, indicates the likely AM and PM peak trip generation shown in the adjacent table.
- Given the small number of trips estimated to be generated by the proposed development site, it is unlikely that it will have a significant impact upon the adjacent road network. However, an assessment of the operation of the junction between Hoylake Road / Valley Road may be required depending upon the land-use proposed for the site when it is developed.

Trip Generation Analysis

	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	20	5	25
PM peak (17:00-18:00)	0.088	0.340	0.428	5	17	22

Comments and assumptions

- The access junction on the southern perimeter of the site is close to the mini-roundabout facilitating access to the Valley Road Business Park. There is a traffic island adjacent this access point, which may present issues with egress.
- Land ownership adjacent the site, particularly at the mini roundabout, need confirming to assess alternative access options.

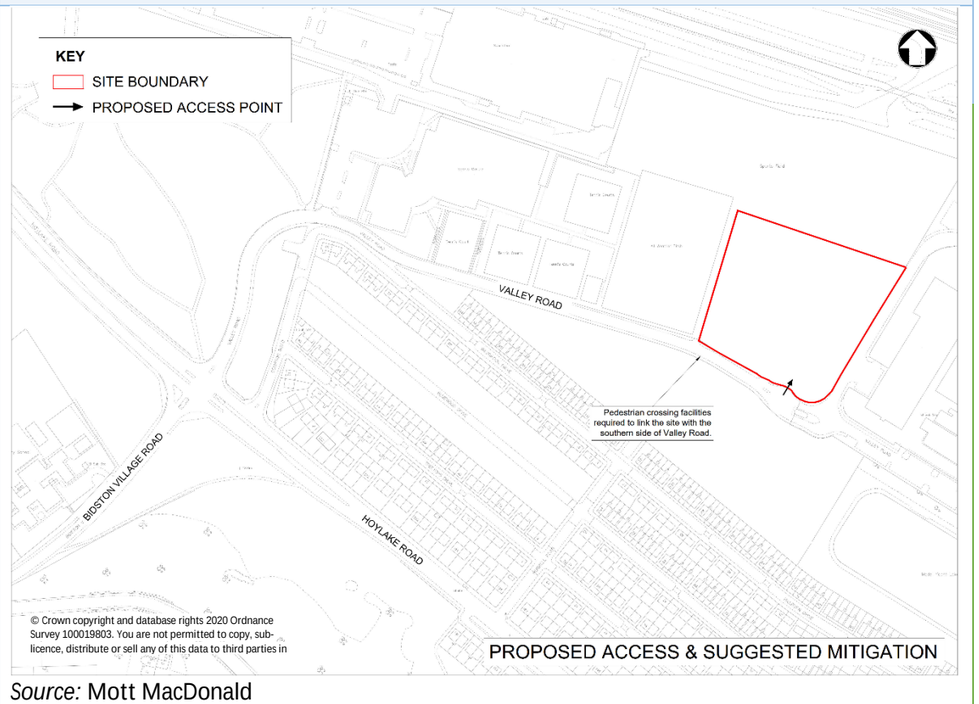
Conclusions and suggested mitigation

- An arm off the existing mini roundabout is suggested as the main access point, subject to land ownership. If this possible, it is suggested that existing access by the roundabout is stopped up and a new access formed approximately mid-way along the site frontage.
- Pedestrian road crossing facilities (dropped kerbs and tactile paving) will be required to link the site to the footway on the south side of Valley Road.

Cost summary for EMP-SA3.1:

- Site access, including crossing facilities: £25,000 - £50,000

Proposed Site Access Arrangement Plan



Source: Mott MacDonald

Prepared by: J. McManus	*Checked by: D. Blakey*	*Approved by: D. Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus	Site Visit Photos
<u>North:</u> • Wastewater – 1 no. Combined Sewer (750mmx1200mm brick) adjacent to Northern boundary. • Potable Water, Electricity and Gas utilities don't appear to be within study area. <u>East:</u> • Potable Water – 2 no. Distribution Mains (6" uPVC and 200mm uPVC) within adjacent road. • Gas – 1 no. 63mm LP PE adjacent to Eastern boundary at the South-East corner. • Wastewater and Electricity apparatus don't appear to be within study area. <u>South:</u> • Wastewater – 1 no. Combined Sewer (820mmx1200mm/750mmx1200mm brick) enters site at Southern boundary, bisects site and exits at Northern boundary. • Gas – 1 no. LP 190mm PE within Southern boundary. • Potable Water and Electricity apparatus don't appear to be within study area. <u>West:</u> • Gas - 1 no. 180mm LP PE adjacent to Western boundary. • Potable Water, Wastewater and Electricity apparatus don't appear to be within study area.	 Source: Google Maps  Source: Google Maps  Source: Google Maps
Potentially Affected Utilities	
Combined Sewer (820mmx1200mm/750mmx1200mm brick) within site.	
Conclusions and suggested mitigation	
This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas. Based on the information obtained, it will be necessary to divert the existing combined water sewer, which currently bisects the site. There may be an option to leave it in-situ, however United Utilities would require unfettered access 24 hours/365 days per annum. Approximate cost of diversion circa £100,000. Please note the cost of this may change dramatically depending upon the depth of the apparatus affected.	

RAG Status of Existing Utility Apparatus		Commentary	*Diversion of combined sewer.*

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

Site ref: EMP-SA3.2 - North Cheshire TE – North of KCTS; EMP-SA3.3 - North Cheshire TE – South of Halliday Funeral Supplies

SITE

Area	*EMP-SA3.2: 0.43ha; EMP-SA3.3: 0.17ha*
Location	Prenton Way, Prenton, Birkenhead, Wirral, CH43 3ET
Proposed land use	B2 General Industry; B8 Storage or Distribution

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The sites are situated within the North Cheshire Trading Estate and is bound by Prenton Way to the east and the M53 to the west, as well as local businesses to the north and south.
- Prenton Way is 30mph with one lane in both the northbound and southbound directions. To the north, it directly links with junction 3 of the M53, and to the south it provides a link to local business associated with the North Cheshire Trading Estate. Directly adjacent to the proposed development site, lighting columns exist only on the eastern perimeter of Prenton Way. A number of employment sites are accessed via Prenton Way, therefore there are numerous accesses junctions.
- It should be noted that, apart from the McDonalds restaurant on Prenton Way, there is a lack of amenities in the area.
- The M53 is an important strategic corridor, providing access to settlements such as Moreton and Upton to the north, Birkenhead to the east and Saughall Massie and Greasby to the west. To the south, it provides access to the wider strategic road network, linking with the M56. This facilitates access to major cities such as Chester and Manchester.
- Whilst no Road Traffic Collisions (RTCs) have been recorded in the immediate vicinity of the proposed development site, 5-year RTC analysis illustrates a total of 3 incidents (2 slight and 1 serious) on Prenton Way. Road safety consequently does appear to be a significant issue.

Vehicular access

- As the sites are fully undeveloped, there is no existing vehicular access point. However, the lack of access points means that it is used for vehicles to park on-street / layover.

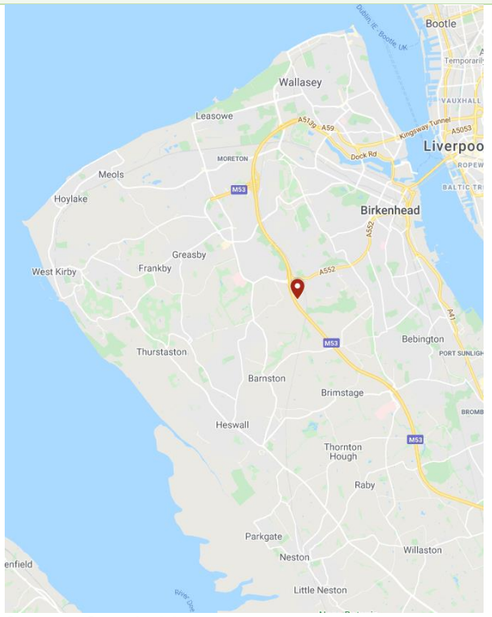
Walking / Cycling connectivity

- Narrow footways on Prenton Way surround the proposed development site, with tactile paving and dropped kerbs provided at local access junctions.
- Sustrans recognises that the site is adjacent NCN 56, which fluctuates between an on road/traffic free route. Moreover, the Wirral Cycle Map illustrates there is an off-road cycle track/bridleway which runs beyond Woodchurch Road to the north, adjacent the M53. This facilitates access to NCN 56, as well as residential settlements in Prenton and Birkenhead. This cycleway/bridleway provides a link under the M53, and forms part of the Wirral Circular Trail.
- Prenton Way is identified as a 'suggested route level 3 – busier road' in the Wirral Cycle Map.
- A number of comments regarding walking and cycling infrastructure along the Wirral Circular Trail, adjacent the M53 junction 3, have been noted on the Wirral Liveable Streets website. The comments highlight that the junction is seen as a barrier to movement for walking and cycling.

Public Transport connectivity

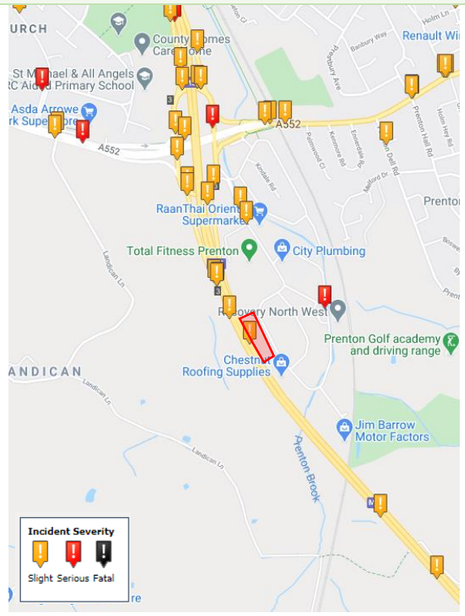
- There is no public transport provision in the immediate vicinity of the site. The closest bus stop is located to the north along Woodchurch Road, and is accessed via an 11-minute walk (900m) along Prenton Way. The services, and weekday daytime frequencies, are described below:
  - 16/16A/17: Moreton Cross to Eastham Rake – 1 service per hour
  - 41/42: Woodchurch to Mill Park – 6 services per hour
  - 216: Woodside to Woodchurch Circular – 3 services at 06:15, 06:45, 07:15
  - 413: Woodside Interchange to Seacombe Ferry Terminal – 2 services per hour
  - 414: Woodside Bus Station to New Brighton – 2 services per hour
  - 418: Birkenhead to New Ferry Circular – 1 service per hour
  - 423: Liverpool to Seacombe Ferry Terminal – 2 evening services per hour
  - 471/472: Heswall to Liverpool – 6 services per hour
  - 226/227, 603, 608, 652, 702: School service

Location



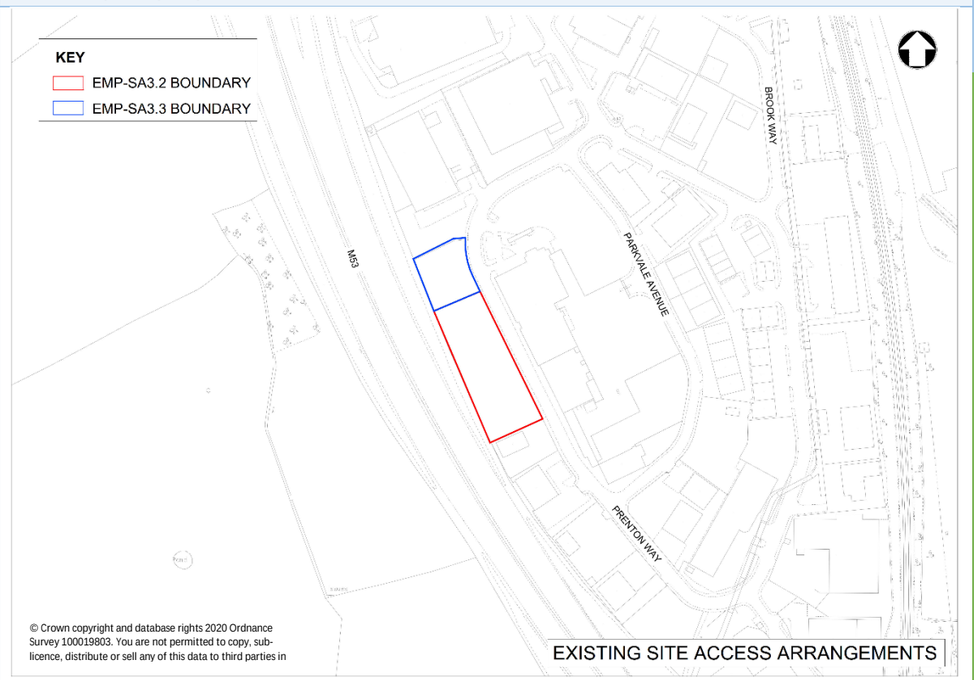
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan *(transport)*



Source: Mott MacDonald

PROPOSED SCENARIO

- The closest railway station to the site is Upton, which is situated to the north. However, this is accessed via a 46-minute walk (3.8km) along New Hay Road and is therefore unlikely to be used by people travelling to the North Cheshire Trading Estate.

RAG Status of Existing Transport Scenario		Commentary	No significant highway and access issues, however the lack of convenient public transport and the barrier to walking and cycling by M53 J9 is noted.

Proposed development and network impact

- Although both sites are adjacent each other, they fall under separate land ownership.
- Both sites are identified as employment sites for the development of B2 general industry and/or B8 storage or distribution.

North Cheshire TE – North of KCTS
- Current assumptions are to develop approximately 40% of the 0.43ha net developable area with B2/B8 use class. This equates to 0.17ha (1,720sqm) of building GFA.
- Applying this to trip rate factors generated within the TRICS database indicates the likely AM and PM peak trip generation shown in the adjacent table.

North Cheshire TE – South of Halliday Funeral Suppliers
- Current assumptions are to develop approximately 40% of the 0.17ha net developable area with B2/B8 use class. This equates to 0.17ha (1,720sqm) of building GFA.
- Applying this to trip rate factors generated within the TRICS database indicates the likely AM and PM peak trip generation shown in the adjacent table.

Total
Based on the existing GFAs, it is unlikely that the proposed development sites will have a detrimental impact upon the operation of the local road network.

Trip Generation Analysis

	North Cheshire TE – North of KCTS					
	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	7	2	9
PM peak (17:00-18:00)	0.088	0.340	0.428	2	6	8

	North Cheshire TE – South of Halliday Funeral Suppliers					
	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	3	1	4
PM peak (17:00-18:00)	0.088	0.340	0.428	1	2	3

	TOTAL		
Time Period	Arr	Dep	2way
AM peak (08:00-09:00)	10	3	13
PM peak (17:00-18:00)	3	8	11

Comments and assumptions

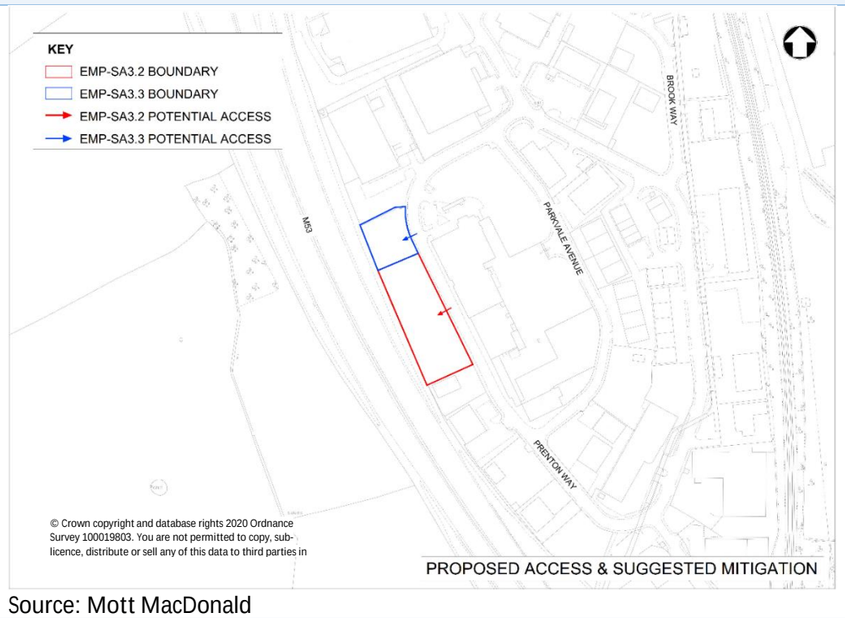
- Both sites are currently undeveloped and will require clearing.
- B2 and B8 use classes would integrate well with the surrounding trading estate.
- Vehicular and cycle parking provision will need to conform with the new standards set out within the Local Plan.
- A Transport Statement will be required to confirm access arrangements should the sites be brought for individually or combined to a single site.
- Dropped kerbs and tactile paving would be required at access junctions.

Conclusions and suggested mitigation

- Should the sites be brought forward separately, individual site accesses will be required. Due to the size of the sites, simple access points should be sufficient – ie dropped kerbs to allow continuation of footways.
- Should the sites be brought forward as a combined development plot, a single access should be sufficient (depending upon land-use). Again, a dropped kerb may be sufficient.

Cost summary for EMP SA3.2 & SA3.3
- Access junctions: £15,000 - £20,000 each.

Suggested Site Access Arrangement Plan



Source: Mott MacDonald

Prepared by: J. McManus	*Checked by: D Blakey*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

UTILITIES

EMP-SA3.2 - North Cheshire TE – North of KCTS

EXISTING SCENARIO

Existing Utility Apparatus	Site Visit Photos
<u>North:</u> • Utility apparatus doesn't appear to be within study area. <u>East:</u> • Potable Water – 6" uPVC within Western footway of Prenton Way. • Electricity – 1 no. LV cable within Western footway of Prenton Way. • Wastewater and Gas apparatus don't appear to be within study area. <u>South:</u> • Utility apparatus doesn't appear to be within study area. <u>West:</u> • Utility apparatus doesn't appear to be within study area.	 Source: Mott MacDonald
Potentially Affected Utilities	
None.	
Conclusions and suggested mitigation	
This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas. Based on the information obtained, no diversions appear to be required.	

RAG Status of Existing Utility Apparatus		Commentary	*Utilities don't appear to be affected.*

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

EMP-SA3.3 - North Cheshire TE – South of Halliday Funeral Supplies

EXISTING SCENARIO

Existing Utility Apparatus	Site Visit Photos
<u>North:</u> • Utility apparatus doesn't appear to be within study area. <u>East:</u> • Potable Water – 1 no. 6" uPVC within Western footway of Prenton Way. • Electricity – 1 no. LV cable within Western footway of Prenton Way. • Wastewater and Gas apparatus don't appear to be within study area. <u>South:</u> • Utility apparatus doesn't appear to be within study area. <u>West:</u> • Utility apparatus doesn't appear to be within study area.	

Potentially Affected Utilities			
None.			
Conclusions and suggested mitigation			
This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas. Based on the information obtained, no diversions appear to be required.			
RAG Status of Existing Utility Apparatus		Commentary	*Utilities don't appear to be affected.*

Source: Mott MacDonald

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

Site ref: EMP-SA4.1 - Former Builders Yard

SITE

Area	0.98ha
Location	Riverbank Road, Birkenhead, Wirral
Proposed land use	B2 General Industry; B8 Storage or Distribution

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The site is bound by Riverbank Road to the north and east, and is situated within the Wirral International Business Park. To the east of the site, current industrial uses associated with North West Construction and Carmet Marine Services are located.
- Riverbank Road is 30mph with one lane in each direction. It links with Commercial Road to the south, and Stadium Road to the west, both via priority junctions. Both roads benefit from adequate street lighting.
- The A41 Chester Road is situated to the west of the site, and is accessed via Magazine Road. This provides links with settlements in Port Sunlight and Birkenhead to the north, as well as Bromborough and Eastham to the south. On a wider scale, it links with junction 5 of the M53, facilitating access to Ellesmere Port and Chester.
- There are no amenities in immediate proximity to the development site, however Croft Retail Park is situated approximately 1.1km to the southwest.
- From 2014-2019, no Road Traffic Collisions (RTCs) have occurred within the immediate proximity of the development site. Three incidents (2 slight, 1 serious) have been recorded on Stadium Road adjacent to Wirral International Business Park; of which, the serious RTC involved a cyclist. There is a cluster of RTCs at the junction between A41 Chester Road / Caldbeck Road / Croft Avenue to the southwest of the site. Over the 5-year period, 10 incidents have been recorded (9 slight, 1 serious), equating to 2 per year. Based on the low frequency of RTCs, it is evident that there are no issues in relation to road safety adjacent the proposed development site.
- It should be noted that there are a number of other Local Plan employment sites also situated within the Wirral International Business Park which could come forward for development.

Vehicular access

- There is an existing access to the development site situated on the inside of a bend along Riverbank Road. The radius of the bend and adjacent vegetation restricts both exit visibility from the site, plus forward visibility to the access from Riverbank Road. Also, it is noted that the access has very large junction radii which may be able to be tightened when the site comes forward for redevelopment.

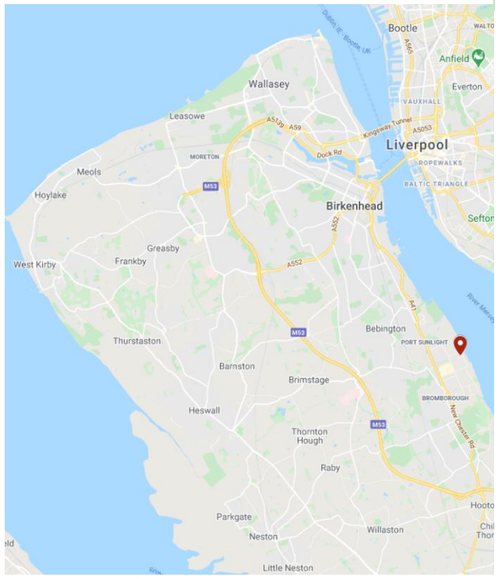
Walking / Cycling connectivity

- There is no Sustrans-recognised cycle route in close proximity to the site. However, Riverbank Road is identified as an 'on-road signed cycle route' on the Wirral Cycle Map, as the route forms part of the Wirral Circular Trail. An off-road cycle track/bridleway runs adjacent to Stadium Road/Commercial Road, linking with Port Sunlight railway station to the northwest.
- There are narrow footways along Riverbank Road. Overgrown vegetation on both the northern and southern perimeters of the road act as a barrier to movement, and create a poor walking environment. This is emphasised on the Wirral Liveable Streets Website, as one comment exists along Riverbank Road relating to the lack of adequate safe walking facilities:
  - *"Lots of people have been using this road for cycling and walking. It is currently totally unsafe as everyone is using the road due to the pavements being overgrown".*
- Dropped kerbs and tactile paving is provided at each site access junction on Riverbank Road.

Public Transport connectivity

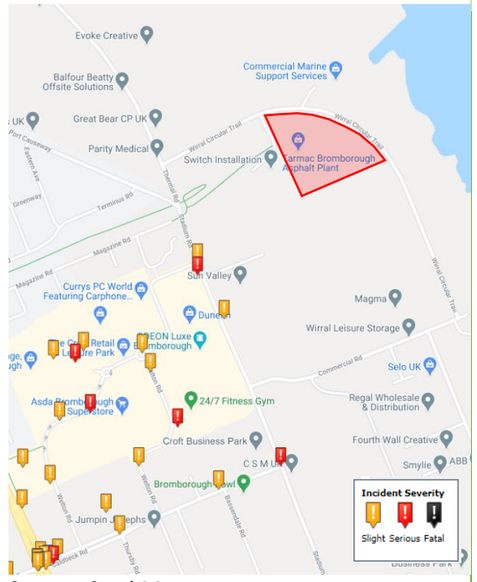
- Whilst there is no public transport provision in the immediate vicinity of the site, the closest bus stop is located 400m west on Stadium Road, accessible via a 5-minute walk along Riverbank Road. However, only 1 service (811 – Leasowe to Broughton) serves this site. The closest bus stop with frequent services is located 1.1km to the east on A41 Chester Road. More information on these services is provided below:
  - *1/X1 Gold: Chester to Liverpool - 4 services per hour*
  - *601, 613, 623: dedicated school services.*
- Spital is the closest railway station to the site, situated approximately 2.1km to the west. It sits on the Wirral Line of the Merseyrail network, and is accessible via Magazine Road/Mill Road. Services from Spital include:
  - Liverpool Central: 4 service per hour
  - Chester: 2 services per hour
  - Ellesmere Port: 2 services per hour.

Location



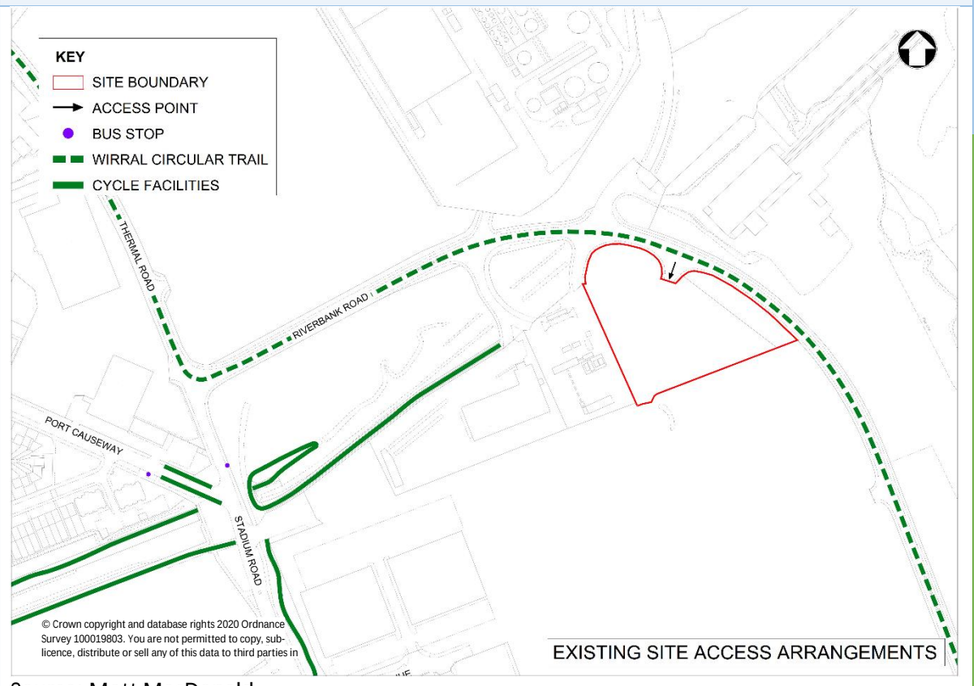
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan *(transport)*



Source: Mott MacDonald

PROPOSED SCENARIO

RAG Status of Existing Transport Scenario		Commentary	*Development proposals would fit well with existing adjacent land uses.*

Proposed development and network impact

- The site has been allocated for B2/B8 uses.
- Current assumptions are to develop approximately 40% of the 0.98ha net developable area with B2/B8 use class buildings. This results in a 0.39ha (3,920sqm) building GFA.
- Applying this to trip rate factors generated within the TRICS database, indicates the likely AM and PM peak trip generation shown in the adjacent table.
- The low number of trips likely to be generated by the site would suggest minimal traffic impact.

Trip Generation Analysis

	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	16	3	19
PM peak (17:00-18:00)	0.088	0.340	0.428	3	13	17

Comments and assumptions

- Vehicular and cycle parking for the development should be provided in accordance with the new standards set out within the Local Plan. Sufficient on-site car parking is needed to avoid overspill onto Riverbank Road.
- The existing access on Riverbank Road is positioned on the inside of a bend, with poor forward visibility.
- The site would wit well within the current land use context.

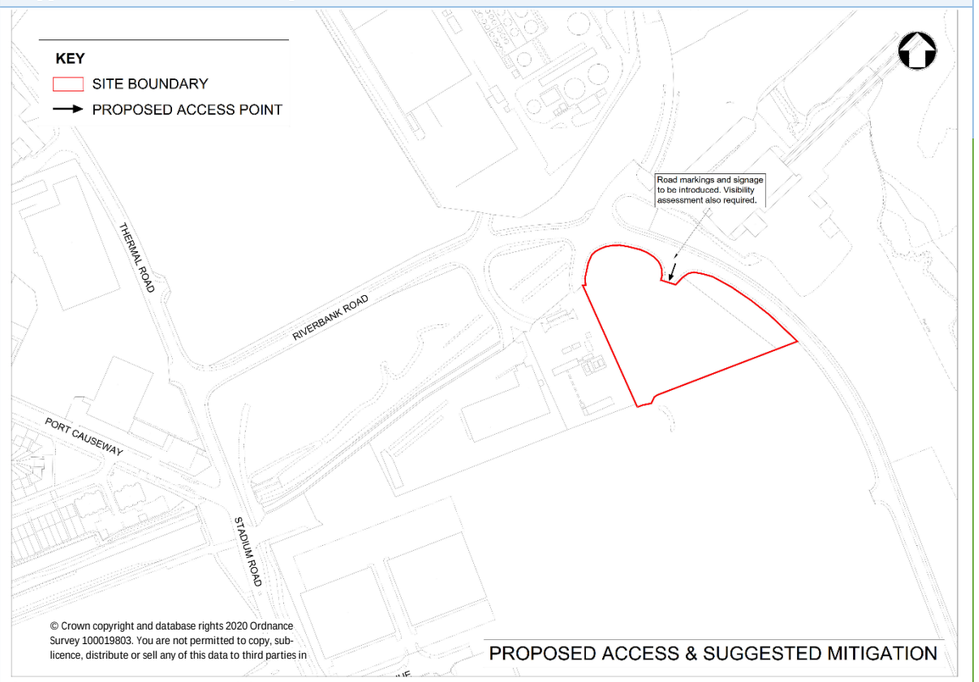
Conclusions and suggested mitigation

- No significant issues have been raised in relation to development at the site.
- Visibility at the existing site access is sub-optimal as it is situated on the inside of a bend. Consequently, there should be emphasis on achieving the best possible visibility at the junction, particularly to the right. In addition to this, there may be opportunities in the future to reduce the scale of the access junction, depending on proposed land uses.
- Road markings and signage would help in highlight presence of access junction for approaching traffic.

Cost summary for EMP-SA4.1:

- Rationalise site access, including dropped kerbs and tactile paving: £10,000 - £20,000
- Refurbish road markings on Riverbank Road: £10,000 - £20,000

Suggested Site Access Arrangement Plan



Source: Mott MacDonald

Prepared by: J. McManus	*Checked by: D Blakey*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus	Site Visit Photos
<u>North:</u> • Wastewater – 1 no. Highway Surface Water Sewer (225mm VC) within adjacent road. • Potable Water, Electricity and Gas apparatus don't appear to be within study area. <u>East:</u> • Utility apparatus doesn't appear to be within study area. <u>South:</u> • Wastewater – 1 no. Highway Surface Water Sewer (1200mm Concrete) enters site at Western boundary, traverses through site and exits at Eastern boundary. • Potable Water, Electricity and Gas apparatus don't appear to be within study area. <u>West:</u> • Wastewater – 1 no. Highway Surface Water Sewer (1200mm Concrete) enters site at Western boundary, traverses through site and exits at Eastern boundary. • Potable Water, Electricity and Gas apparatus don't appear to be within study area.	  Source: Mott MacDonald
Potentially Affected Utilities	
1 no. Highway Surface Water Sewer (1200mm Concrete)	
Conclusions and suggested mitigation	
This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas. Based on the information obtained, the 1200m Highway Surface Water Sewer appears to be on the Southern edge of the proposed development plot. Subject to maintaining unfettered access to United Utilities, it may be possible for this apparatus to remain. Should diversion be required, the cost would be in the region of circa £150,000. Please note the cost of this may change dramatically depending upon the depth of the apparatus affected.	

RAG Status of Existing Utility Apparatus		Commentary	*Highway Surface Water diversion potentially required.*

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

Site ref: EMP-SA4.2 - Former Tank Farm

SITE

Area	1.01ha
Location	Former Tank Farm, Wirral International, Commercial Road, Bromborough
Proposed land use	Employment – B2/B8

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The site currently comprises an area of hardstanding, mature woodland and overgrown vegetation with a fenced boundary. The former tank farm has been cleared to slab level only
- The site is classed as brownfield land
- The site lies within a primary industrial area, bounded to the north by existing employment development at Georgia Avenue, to the east by a caravan storage yard, to the south by Commercial Road, with large scale employment development beyond, and to the west by Stadium Road, with the South Wirral Retail and Leisure Park beyond
- Both Commercial Road and Stadium Road run a 30mph two-way single carriageway, with shared pedestrian/cycleways benefiting from a good coverage of existing street lighting
- There are currently no waiting restrictions along both Commercial Road and Stadium Road
- A 5-year Road Traffic Collision (RTC) analysis (2015-2019) shows no incidents were recorded immediately alongside the site while no incident clusters were recorded on the primary north and south approach along Stadium Road. It is thus concluded that there are no significant road safety issues in immediate proximity to the site
- No comments of concern have been recorded around the site on the Wirral Liveable Streets website
- It should be noted that site EMP-SA4.2 is situated on Riverbank Road to the northeast.

Vehicular access

- Strategic access is provided via Stadium Road which runs along the western edge of the site and provides onward connectivity to the A41 as the local distributor
- Access to the site itself is currently provided by a dropped kerb on Commercial Road, approximately just 50m east of the junction with Stadium Road
- It is recommended that the formal access that will need to be implemented is provided further along Commercial Road as the current position is too close to the junction with Stadium Road and may not comply with minimum visibility splays

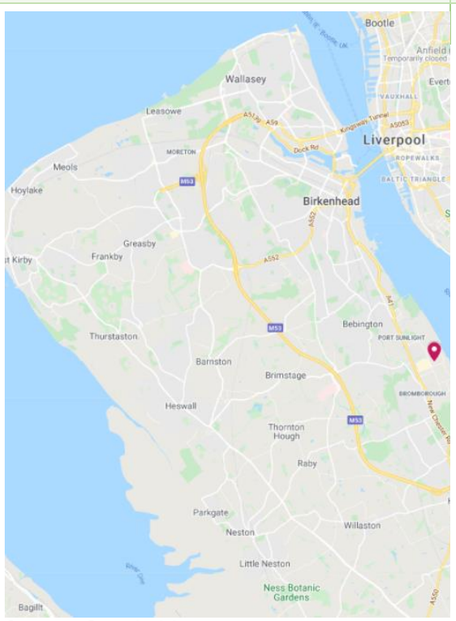
Walking / Cycling connectivity

- Both Commercial Road and Stadium Road benefit from generous pavement/footway provisions, well lit by existing street lighting
- An un-controlled staggered crossing provides access across Commercial Road at its junction with Stadium Road. This is facilitated by non-tactile dropped kerbs
- The closest pedestrian crossing on Stadium Road is located approximately 100 meters to the north of the junction, comprising an uncontrolled pedestrian island crossing, benefiting from dropped kerbs and tactile paving
- The Wirral Circular Trail runs north-south approximately 250m to the east of the site, providing onward cycle connectivity around the Wirral coast
- The site also benefits from off-road shared pedestrian/cycleway along both Commercial Road and Station Road, connecting the Wirral Circular Trail to the east and a further off-road cycleway to the north-west into Port Sunlight
- On-road cycle lanes are also provided along Stadium Road heading south

Public Transport connectivity

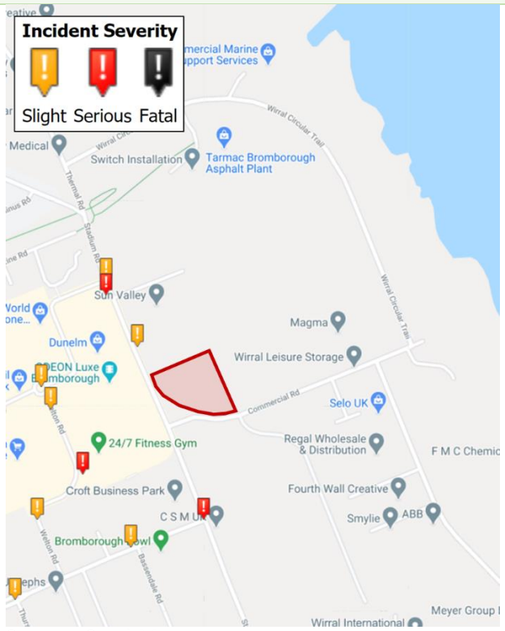
- No public transport in the immediate vicinity
- The nearest bus stops are located along Stadium Road, approximately 400 meters to the north of the site, connected by pavement
- Bus services at this point are as follows:
  - 38A, 38B & 38Gold: New Ferry, Bromborough, Mill Park or Eastham – West Kirby
  - 41 & 42: Eastham – Woodchurch
  - 811: Leasowe or Moreton Cross – Broughton Shopping Park

Location



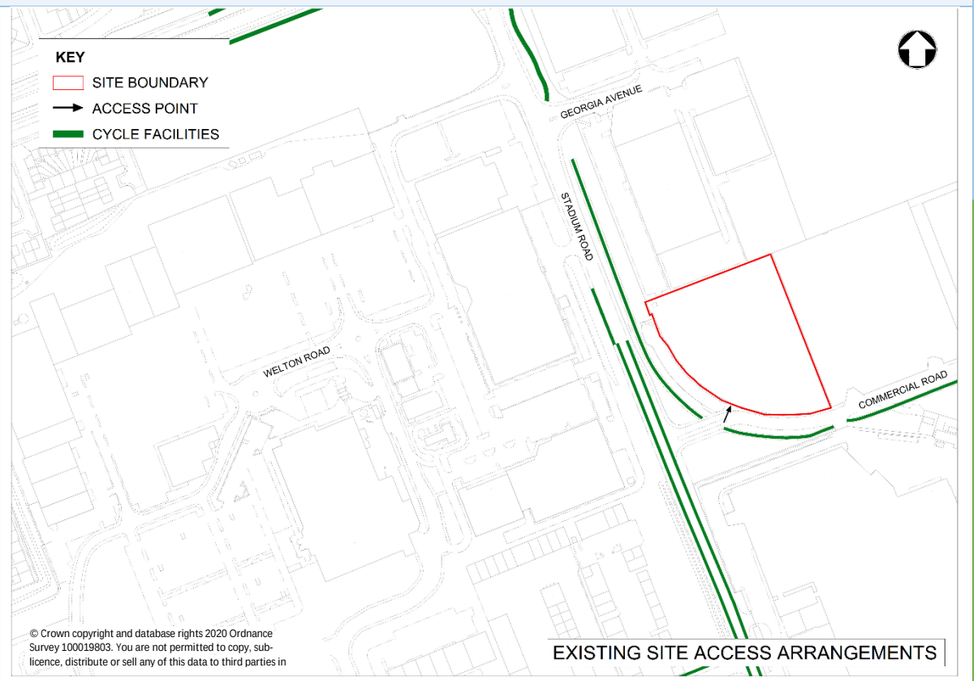
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan



Source: Mott MacDonald

- Spital station is the nearest rail station, located approximately 25minutes to the west by foot
- Pavements are provided along the entirety of the route which follows Stadium Road, Magazine Road, crosses the A41 via signal-controlled facilities before following the B5137 Spital Road
- Spital station benefits from 141 car parking spaces, 20 secure cycle parking spaces but is not wheelchair accessible
- The station is served by both the Liverpool-Chester and Liverpool to Ellesmere Port Merseyrail lines, each running 4 trains per hour during peak times

RAG Status of Existing Transport Scenario		Commentary	No significant issues were noted at this site. Site appears well suited for employment uses

PROPOSED SCENARIO

Proposed development and network impact

- Current assumptions are to develop approximately 40% of the 1.01ha net developable area with B2/B8 use class buildings. This results in a 0.4ha (4,040sqm) building GFA
- Applying this to trip rate factors generated within the TRICS database, indicates the likely AM and PM peak trip generation shown to the right
- Cumulative impact assessment for sites 330,350 and 116?
- This trip generation anticipated to be incurred by the development is not expected to have a material impact on the operation of the surrounding road network
- It should also be noted that three additional employment sites are currently being considered within the local plan that would see vehicular access via Stadium Road. However, in combination the total trips generated should all four sites come forward is not anticipated to result in any significant off-site impacts.

Trip Generation Analysis

	Trip Rates* *(per 100sqm GFA)*			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	16	4	20
PM peak (17:00-18:00)	0.088	0.340	0.428	4	14	17

**Trip rates derived from TRICS surveys for land use: 'Employment – Industrial Unit'*

Comments and assumptions

- The current site access is located close to the junction with Stadium Road and may not comply with minimum visibility splays
- Area of council land at the southwest of the site may be required to achieve adequate visibility splays

Conclusions and suggested mitigation

Summary of issues:

- No significant highway and access issues were noted at this site

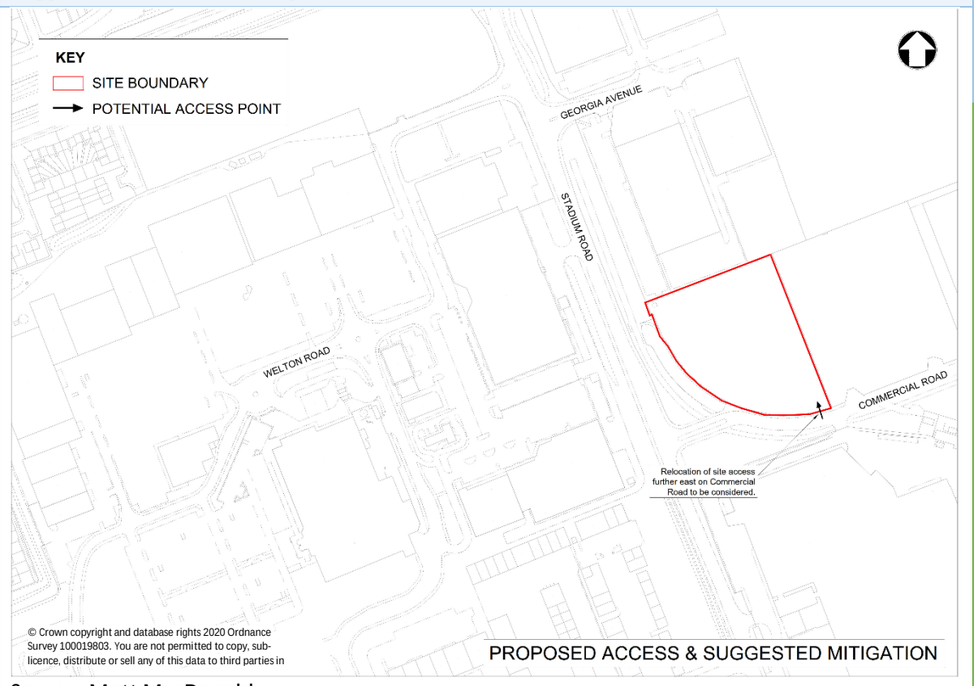
Recommendations:

- Consider relocation of the site access further to the east on Commercial Road to improve visibility splays.

Cost summary for SA4.2:

- Relocation of site access: £25,000 - £50,000

Suggested Site Access Arrangement Plan



Source: Mott MacDonald

Prepared by: *D Blakey*	Checked by: *J McManus*	Approved by: *D Crockett*	Date: *02/12/2021*	Project Details	Wirral Local Plan Support: Additional sites review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

North:
- Utility apparatus doesn't appear to be within study area.

East:
- Utility apparatus doesn't appear to be within study area.

South:
- Potable Water – 2 no. Distribution Mains (160mm uPVC and 6" CI) within Commercial Road.
- Electricity – 1 no. EHV (33kV) within Southern edge of Commercial Road.
- Gas – 2 no. LP (8" SI and 6" SI) within Southern edge of Commercial Road. 180mm MP PE tangential to the South-West site boundary.
- Wastewater – doesn't appear to be within study area.

West:
- Electricity - 1 no. EHV (33kV) cable adjacent to Western boundary.
- Gas – 2 no. LP (8" and 6" SI) adjacent to Western boundary.

Potable Water and Wastewater apparatus don't appear to be within study area.

Potentially Affected Utilities

None.

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, no diversions appear to be required. Access to the site may conflict with existing utility apparatus which may require local lowering/diversion.

RAG Status of Existing Utility Apparatus		Commentary	*Utilities don't appear to be affected.*

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional sites review

Site ref: EMP SA4.3 Former Spectrum Adhesives

SITE

Area	2.33Ha
Location	Croft Retail Park, Caldbeck Road, Bromborough, Wirral
Proposed land use	B2 General Industry; B8 Storage or Distribution

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The site is situated adjacent to Croft Retail Park and is bound by Welton Road to the east and west, Caldbeck Road to the south, and the Asda Bromborough car park to the north.
- Welton Road provides access to parking associated with units within the retail park via two priority roundabout junctions to the north. Traffic signals are positioned on the eastern perimeter, adjacent Frankie and Bennies, the northern perimeter adjacent Boots, and the western perimeter adjacent McDonalds. All internal roads benefit from adequate street lighting.
- Welton Road West is 1-way, with 2-lanes in the northbound direction, whereas Welton Road East is 2-way, with 1 lane in the northbound and southbound directions.
- Welton Road provides the only vehicular access route from the north to all units within Croft Retail Park, it experiences high levels of vehicular traffic.
- Caldbeck Road provides access to the A41, which links with settlements to the north such as Port Sunlight and Birkenhead, as well as Bromborough and Eastham to the south. On a wider scale, it links with M53 junction 5, a key component of the Strategic Road Network, connecting with Chester and Ellesmere Port to the south. Caldbeck Road is also an important access route to the Croft Business Park.
- Five-year Road Traffic Collision data analysis indicates 12 incidents (9 slight, 3 serious) have been recorded within Croft Retail Park. Of which, 2 incidents involved cyclists (both serious), 2 involved a child (both slight) and 5 involved other pedestrians (3 slight, 2 serious). In addition to this, a cluster of 10 RTCs (9 slight, 1 serious) has been recorded at the junction between Caldbeck Road / A41 Chester New Road. During the preparation on the transport assessment for this site a detailed accident investigation will be required.

Vehicular access

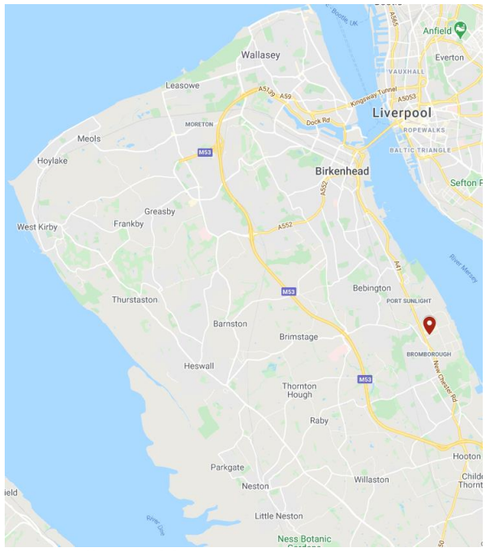
- There is an existing access point to the site on Welton Road, approximately 120m to the north of the junction between Welton Road / Caldbeck Road. It is situated on the outside of a bend, which may present visibility issues if it was to be utilised as the primary site access.
- There is an additional access approximately 95m to the south of the aforementioned junction. This is positioned approximately 20m to the north of the junction between Welton Road / Caldbeck Road. Vehicles egressing from this point would have poor visibility to the right, therefore, if it was to be utilised in the future, it should be as in only.
- Both junctions are unlikely to be suitable for bringing this whole site back into use.

Walking / Cycling connectivity

- Croft Retail Park experiences high levels of pedestrian footfall particularly from the west which faces towards the residential area of Bromborough. To the east a footpath links Asda with Welton Road East.
- Welton Road East comprises of narrow footways, with a lack of crossing facilities. Tactile paving and dropped kerbs are provided at the northern site access junction. It can be particularly difficult for pedestrians to cross due to the high volumes of vehicular traffic.
- Welton Road West also comprises of narrow footways. Dropped kerbs, with no tactile paving, are provided at the McDonalds egress junction, whereas tactile paving is provided at the northern access junction. In addition to this, push button facilities are provided on the northern arm of the McDonalds access junction. This provides a direct east-west link between McDonalds and Asda.
- No cycleways are recognised by Sustrans adjacent to the proposed development site. However, the Wirral Cycle Map illustrates an 'off-road cycle track/bridleway' adjacent to the A41, providing a direct link with Welton Road West. To the south, this off-road route provides a link with Old Hall Road and a further connection with the Wirral Circular Trail to the east.
- Two comments have been noted on the Wirral Liveable Streets websites regarding the walking infrastructure at Croft Retail Park. One comment was made on Welton Road East, emphasising how difficult it is to cross. In addition to this, a further comment was noted on Welton Road West regarding the long pelican crossing cycle-time.

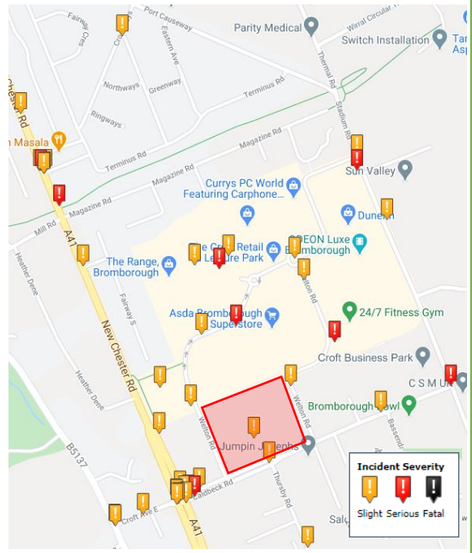
Public Transport connectivity

Location



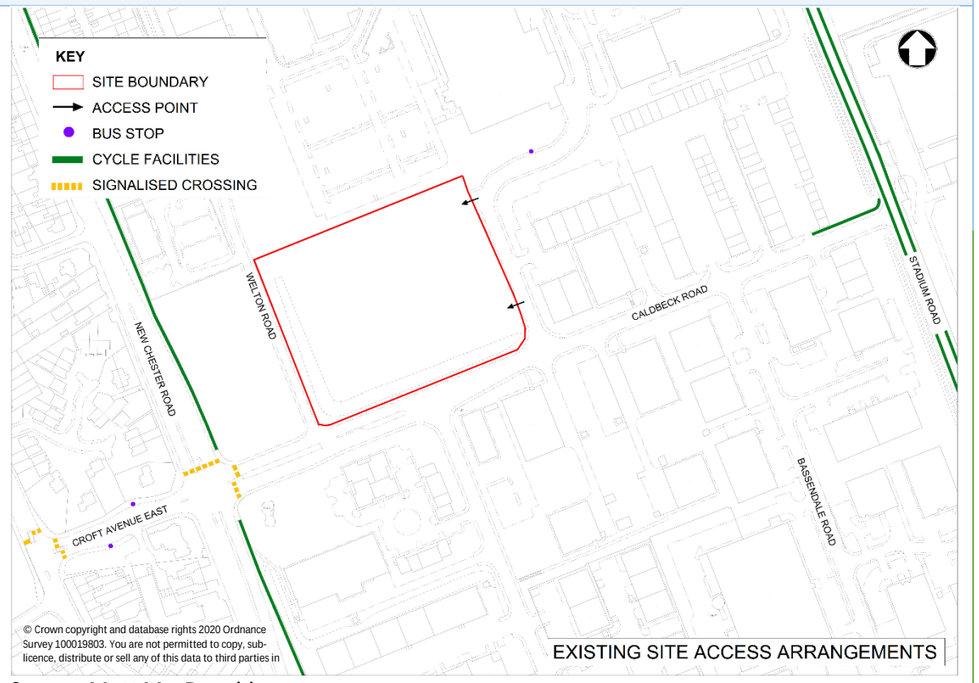
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan *(transport)*



Source: Mott MacDonald

- The closest bus stop to the site is located approximately 40m to the east on Welton Road East. Bus stops are of high quality, and the following services serve the stop:
  - 38A/38 Gold: New Ferry, Bromborough, Mill Park or Eastham Ferry to West Kirby – 2 services per hour
  - 41/42: Eastham to Woodchurch – 3 services per hour
- Spital is the closest railway station to the site, situated approximately 1.9km to the west. It sits on the Wirral Line of the Merseyrail network, and is accessible via Caldbeck Road/Spital Road. Services from Spital include:
  - Liverpool Central: 4 service per hour
  - Chester: 2 services per hour
  - Ellesmere Port: 2 services per hour.

RAG Status of Existing Transport Scenario		Commentary	Traffic flows on three side of the site are very high, which will require a higher standard of site access junction to serve the development plot.

PROPOSED SCENARIO

Proposed development and network impact

- The site has been allocated for B2/B8 uses. Red Sun Projects, specialists in new build industrial development, are responsible for managing the site, and describe it as 'suitable for a mix of uses including retail, leisure and employment'.
- Current assumptions are to develop approximately 40% of the 2.33ha net developable area with B2/B8 use class buildings. This results in a 0.93ha (9,320sqm) building GFA.
- Applying this to trip rate factors derived from the TRICS database indicates the likely AM and PM peak trip generation, of which is shown in the adjacent table.
- The transport assessment for this development site will need to generate new trip rates once the details of the proposed development are known.

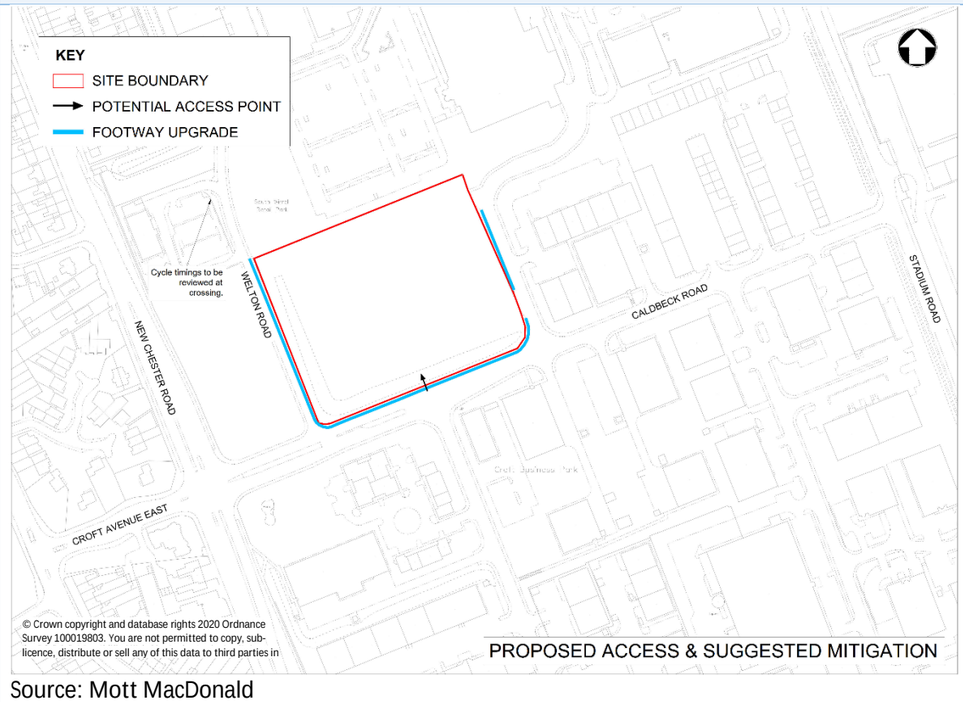
Trip Generation Analysis

	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	37	8	45
PM peak (17:00-18:00)	0.088	0.340	0.428	8	32	40

Comments and assumptions

- It should be noted that the internal site sits at a lower gradient than Welton Road.
- The southern access junction on Welton Road East is positioned close to the junction between Welton Road East / Caldbeck Road.
- The northern access junction would suffer from poor forward visibility.
- Any development proposal will require a Transport Assessment, with particular focus on the impact of trips generated on Welton Road, as it already experiences significant levels of vehicular traffic.

Suggested Site Access Arrangement Plan



Source: Mott MacDonald

Conclusions and suggested mitigation

- The main site access is recommended to be from the south via Caldbeck Road as this will allow some separation from the vehicle trips being generated inbound by the Croft Retail Park. An option would be to combine it with the junction Thursby Road as either a 4-arm roundabout, or 4-arm signal junction. The latter may be preferred as signal timings could be coordinated with the main A41 junction on New Chester Road, and also pedestrian and cycle facilities could be incorporated.
- Upgrades to walking infrastructure should be considered. The cycle time at the pedestrian crossing adjacent McDonalds should be reviewed, and, in addition to this, a crossing point of Welton Road is desirable to enhance connectivity to the site.

Cost summary for EMP-SA4.3:

- New site access junction: £500,000 - £750,000
- Footway and crossing improvements: £50,000 - £75,000

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

North:
- Wastewater – 1 no. Foul Water Sewer (300mm VC) within Northern site boundary.
- Potable Water, Electricity and Gas apparatus don't appear to be within study area.

East:
- Wastewater – 1 no. Foul Water Sewer (225mm VC) and 1 no. Highway Surface Water Sewer (300mm/450mm Concrete) within Western footway of Welton Road.
- Electricity – LV and HV (11kV) cables within Eastern site boundary. Electricity Sub-Station located within proposed development.
- Potable Water and Gas apparatus don't appear to be within study area.

South:
- Wastewater – 1 no. Foul Water Sewer (225mm VC) and 1 no. Highway Surface Water Sewer (225mm VC/450mm Concrete) within Northern footway of Caldbeck Road.
- Potable Water, Electricity and Gas apparatus don't appear to be within study area.

West:
- Wastewater – 1 no. Combined Sewer (1200mm Concrete) bisects site at North-West.
- Potable Water, Electricity and Gas apparatus don't appear to be within study area.

Potentially Affected Utilities

North:
- 1 no. Foul Water Sewer (300mm VC) within Northern site boundary.

East:
- LV and HV (11kV) cables within Eastern site boundary.

West:
- 1 no. Combined Sewer (1200mm Concrete) bisects site at North-West.

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, apparatus appears to encroach upon the proposed development. Within the development plot, to the North-East, an existing 11kV sub-station appears to be present, this should not be considered as being an issue as some of the connections may be required for future use. However, the presence of the 300mm Foul Sewer and the 1200mm Combined Sewer will constrain the available land suitable for development.

Should it prove necessary to divert the two sewers, the cost would be circa £300,000. Please note the cost of this may change dramatically depending upon the depth of the apparatus affected.

RAG Status of Existing Utility Apparatus		Commentary	*Major sewers may potentially require diversion.*

Site Visit Photos

Source: Mott MacDonald

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D. Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

Site ref: EMP SA4.4 – Tulip Expansion

SITE

Area	2.08ha
Location	Tulip, Wirral International, Plantation Road, Bromborough
Proposed land use	Employment – B2/B8

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The site currently comprises vacant grassland and is being retained as expansion land for adjacent commercial uses
- The site is classed as brownfield land and fenced off to the public
- The site sits within an established employment area, bounded to the north by Plantation Road, with existing employment development beyond, to the east by Riverbank Road, to the south by existing employment development and to the west by Power Road and existing employment development beyond
- All surrounding roads run a 30mph two-lane single carriageway
- There are currently no waiting restrictions along both Plantation Road and Power Road
- All surrounding roads benefit from good existing street lighting coverage
- A 5-year Road Traffic Collision (RTC) analysis (2015-2019) shows no incidents were recorded around the site, while no incident clusters were recorded on the primary access route on Power Road and Plantation Road. It is thus concluded that there are no significant road safety issues in immediate proximity to the site
- No comments have been raised on the Wirral Liveable Streets website for nearby streets
- The western portion of the site adjacent to Power Road comprises an extent of mature vegetation which may need to be maintained

Vehicular access

- Strategic access is provided via Stadium Road and Old Hall road, connecting the A41 to the west as the local distributor road
- The site is connected by Plantation Road which joins Old Hall Road via a priority-controlled T-junction approximately 205 meters to the west of the site
- There is currently no access infrastructure onto the site itself
- An access to the site can, however, be delivered off Plantation Road approximately mid-point between Power Road and Riverview Road

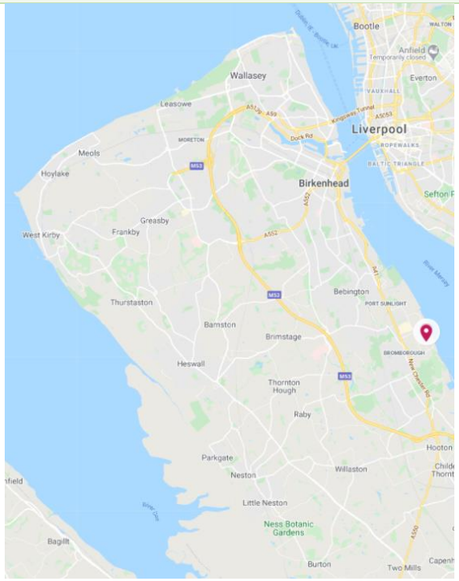
Walking / Cycling connectivity

- Pavements are provided along all surrounding roads which all benefit from good existing street lighting
- Non-tactile dropped kerbs provide pedestrian access across Power Road at the junction with Plantation Road while a mixture of tactile and non-tactile dropped kerb provide access over accesses along Plantation Road down to Old Hall Road
- However, there are no crossing facilities over Old Hall Road
- The Wirral Circular Trail runs north-south on the eastern edge of the site, providing onward cycle connectivity around the Wirral coast
- Off-road cycleways are also in place on the far side of Riverwood Road approximately 200 meters to the south of the site

Public Transport connectivity

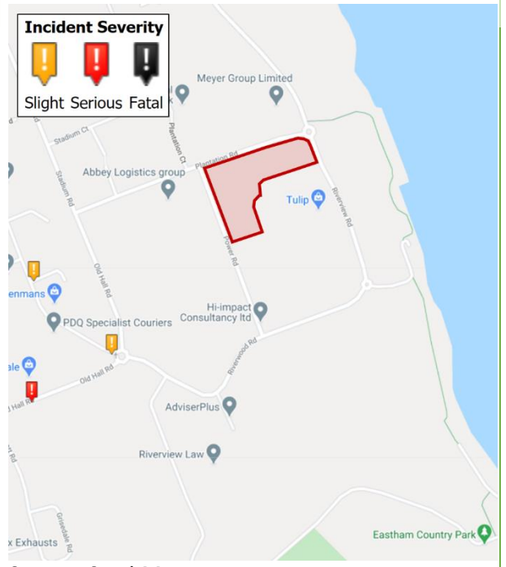
- No public transport in the immediate vicinity
- The nearest bus stops are located on Old Hall Road approximately 250 meters to the west
- The route by foot follows Plantation Road with pavements along its entirety but lacks pedestrian crossing facilities at Old Hall Roads while the bus stops do not provide shelters or seating
- Bus services at this point are as follows:
    - 38A, 38B & 38 Gold: New Ferry, Bromborough, Mill Park or Eastham – West Kirby
    - 811: Leasowe or Moreton Cross – Broughton Shopping Park
- Bromborough Rake is the nearest rail station, located approximately 30 minutes to the west by foot, but is connected by the bus route.

Location



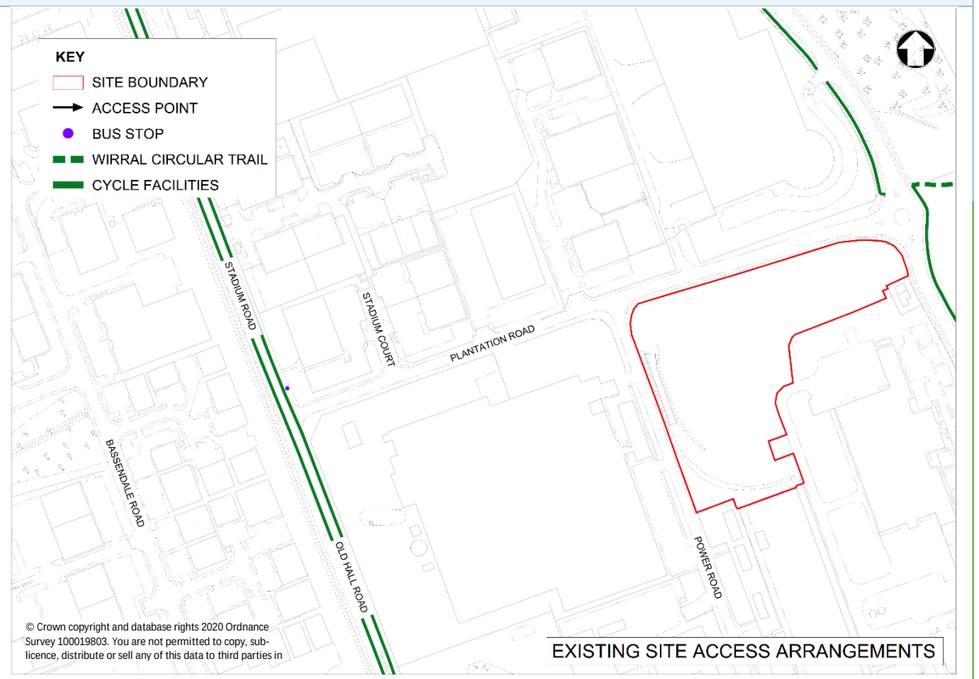
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan *(transport)*



Source: Mott MacDonald

RAG Status of Existing Transport Scenario		Commentary	No significant issues were noted at this site. However, public transport accessibility is poor

PROPOSED SCENARIO

Proposed development and network impact

- Current assumptions are to develop approximately 40% of the 2.08ha net developable area with B2/B8 use class buildings. This results in a 0.83ha (8,320sqm) building GFA
- Applying this to trip rate factors generated within the TRICS database, indicates the likely AM and PM peak trip generation shown to the right
- This trip generation anticipated to be incurred by the development is not expected to have a material impact on the operation of the surrounding road network
- It should also be noted that three additional employment sites are currently being considered within the local plan that would see vehicular access via Stadium Road/Old Hall Road

Trip Generation Analysis

	Trip Rates* *(per 100sqm GFA)*			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	33	7	40
PM peak (17:00-18:00)	0.088	0.340	0.428	7	28	36

**Trip rates derived from TRICS surveys for land use: 'Employment – Industrial Unit'*

Comments and assumptions

- Access suggested along Plantation Road – staggered from existing access on north side of the road

Conclusions and suggested mitigation

Summary of issues:

- No significant issues were noted at this site

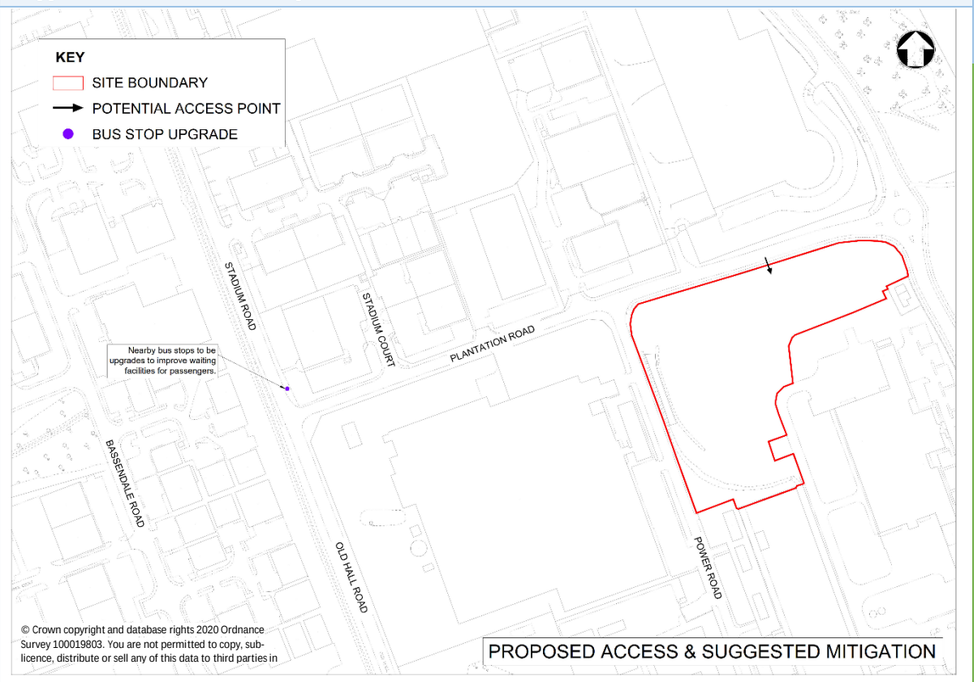
Recommendations:

- New site access off Plantation Road, including dropped kerbs and tactile paving
- Nearby bus stops should be upgraded to improve waiting facilities for passengers

Cost estimate for off-site works for site ref: 1610:

- New site access: £50,000 - £75,000
- Bus stop improvements: £10,000 - £20,000

Suggested Site Access & Mitigation Plan



Source: Mott MacDonald

Prepared by: *D Blakey*	Checked by: *J McManus*.	Approved by: *D Crockett*	Date: *02/12/2021*	Project Details	Wirral Local Plan Support: Additional sites review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

North:

- Potable Water – 1 no. 8" PV adjacent to Northern boundary.
- Wastewater – 1 no. Highway Surface Water Sewer (825mm CO) and 1 no. Foul Sewer (625mm VC) within Plantation Road.
- Electricity – Pilot/Tele/Auxilliary cables within Southern footway of Plantation Road. HV (11kV) and LV cables within Southern verge of Plantation Road.
- Gas – doesn't appear to be within study area.

East:

- Electricity – Pilot/Tele/Auxilliary, LV, HV (11kV) and EHV (33kV) cables within Western verge/footway of Riverview Road. Electricity Sub-Station located within close proximity to the proposed development.
- Potable Water, Wastewater and Gas apparatus don't appear to be within study area.

South:

- Utility apparatus doesn't appear to be within study area.

West:

- Electricity – 1 no. EHV (33kV) cable adjacent to Western boundary.

Potable Water, Wastewater and Gas apparatus don't appear to be within study area.

Potentially Affected Utilities

None.

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, no diversions appear to be required.

RAG Status of Existing Utility Apparatus		Commentary	*Utilities don't appear to be affected.*

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional sites review

Site ref: EMP-SA4.5 - Eastham Dock Estate – North Road Tank Farm Complex

SITE

Area	8.38ha
Location	North Road, Ellesmere Port, Wirral, CH65 1BL
Proposed land use	B2 General Industry; B8 Storage or Distribution

TRANSPORT – EXISTING SCENARIO

Existing highway network

- The site is bound by North Road to the south and the River Mersey to the north. It is situated adjacent the existing North Road Business park (Hooton Business Park), as well as Vauxhall Supply Park; an industrial estate consisting of DHL Automotive, Less Common Materials, Vauxhall Motors and AMI Metals UK.
- North Road is 30mph with one lane in both the eastbound and westbound directions. The road is heavily traffic calmed, with numerous road humps adjacent to the proposed development.
- North Road provides a link with junction 6 of the M53 at its northern end, and junction 7 at its southern end. This helps to connect the site with settlements in the Wirral to the north, as well as further connections to Liverpool, Ellesmere Port and Chester.
- Five-year Road Traffic Collision (RTC) analysis indicated 3 incidents on North Road (2 slight, 1 serious), of which, one motorcyclist was involved. In addition to this, several incidents have been recorded on the M53. However, given the high daily volumes of traffic using this route, it is deemed that there is no issue in relation to road safety adjacent the development site.
- A disused freight railway line runs along the southern perimeter of the site.

Vehicular access

- Numerous access points exist along North Road which would facilitate entry to the proposed development site.

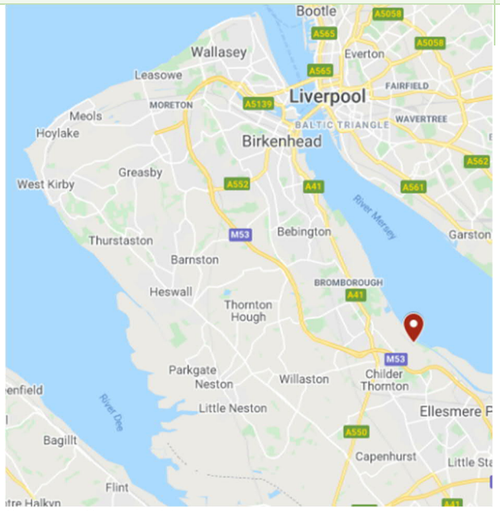
Walking / Cycling connectivity

- No recognised cycle routes are identified by Sustrans adjacent to the development site. However, there is a shared use path along the northern perimeter of North Road. The footway along the southern perimeter of North Road is narrow and overgrown. Dropped kerbs are provided at junctions along the northern and southern perimeters. However, tactile paving is provided only at the southern access junction to Hooton Business Park. The road benefits from street lighting on both sides.
- The footpath along the northern perimeter terminates approximately 75m to the west of Vauxhall Motors.
- The 2km walking catchment covers most of the adjacent industrial area, with little population.
- The 5km cycling catchment covers villages such as Overpool, Eastham, Bromborough, Hooton and Ellesmere Port.

Public Transport connectivity

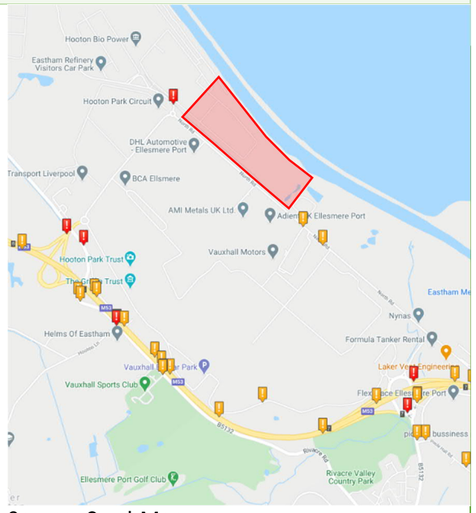
- There is currently no public transport provision in proximity of the site. Therefore, it is likely that the main method of transport to the site would be via private vehicle.

Location



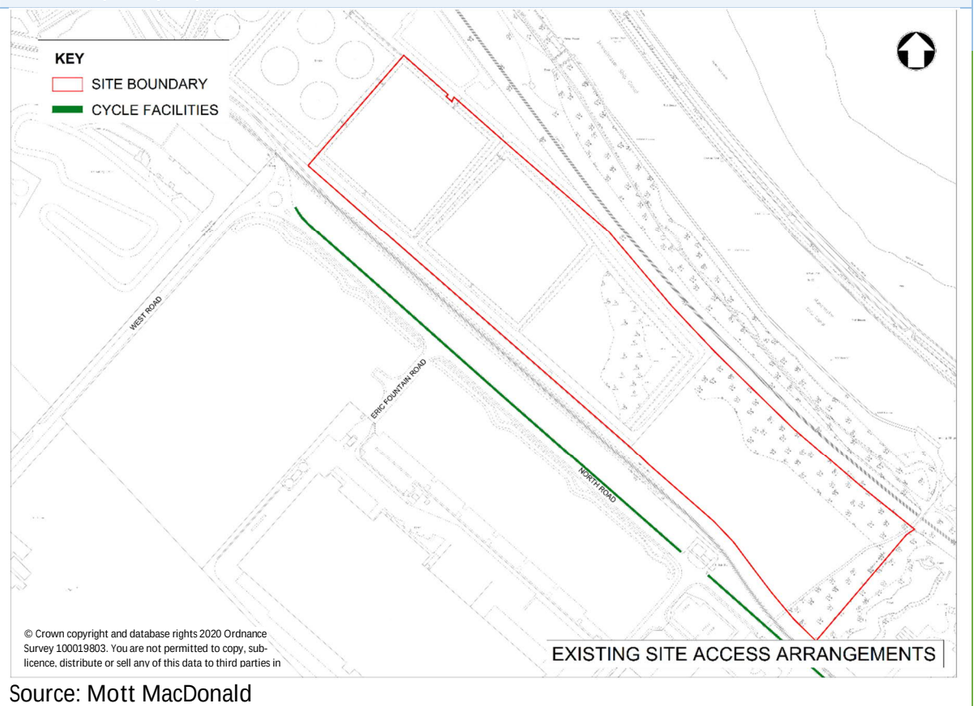
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan *(transport)*



Source: Mott MacDonald

RAG Status of Existing Transport Scenario		Commentary	*Site would fit well with the current uses. However, it is noted that access by public transport would be minimal.*

Proposed Scenario

Proposed development and network impact

- Outline planning permission has been approved at the site for *"development of up to 500,000ft2 (46,450m2) of B2 / B8 Use Class floorspace, with ancillary B1(a) Use Class floorspace, service yards, and all associated works including landscaping and car parking with all matters reserved for future consideration".*
- To ensure highway safety, the decision notice for the site states that *"Prior to the occupation of any phase of development on the site an HGV routing and signage strategy and set of Haulier Rules must be submitted to and agreed by the local planning authority. The routing strategy must take steps to discourage HGV's routing through Eastham Village. Once agreed the strategy and rules must be adhered to for the life of the development, in so far as the landowners / occupiers are legally and practically able."*
- The Transport Assessment (TA) '*Proposed Employment Development: North Road Business Park'*, provides trip generation for the proposed development site, based on B2 use class and a GFA of 46,450 sqm, of which are detailed in the adjacent table.
- The TA also provides junction assessments, focussing on the North Road/West Road roundabout and M53 Junction 6, in addition to two indicative site accesses. The results indicated that the site access junctions would operate well within capacity, and the proposed development would not have a material impact upon the operation of the North Road/West Road roundabout, or the M53 Junction 6. Based on the junction modelling results, all junctions would be able to accommodate significant additional vehicular traffic in the future year scenarios.

Comments and assumptions

- Currently, the site is fully undeveloped.
- The TA for the site indicates that 733 car parking spaces would be provided at the site, as well as two vehicular accesses. However, it should be noted that all matters are subject to change. Parking proposals need to conform with the new standards set out within the new Local Plan.
- Cycle parking will be provided for each development unit, in line with standard set out in the new Local Plan.
- The proposed use classes would fit well with the surrounding area.

Conclusions and suggested mitigation

- Vegetation at access junctions will need to be stripped back to ensure visibility splays conform with DMRB standards.
- Proposed access junctions would run at grade over the disused freight line.
- Footpaths and cycleways in the immediate vicinity of the site require upgrading.

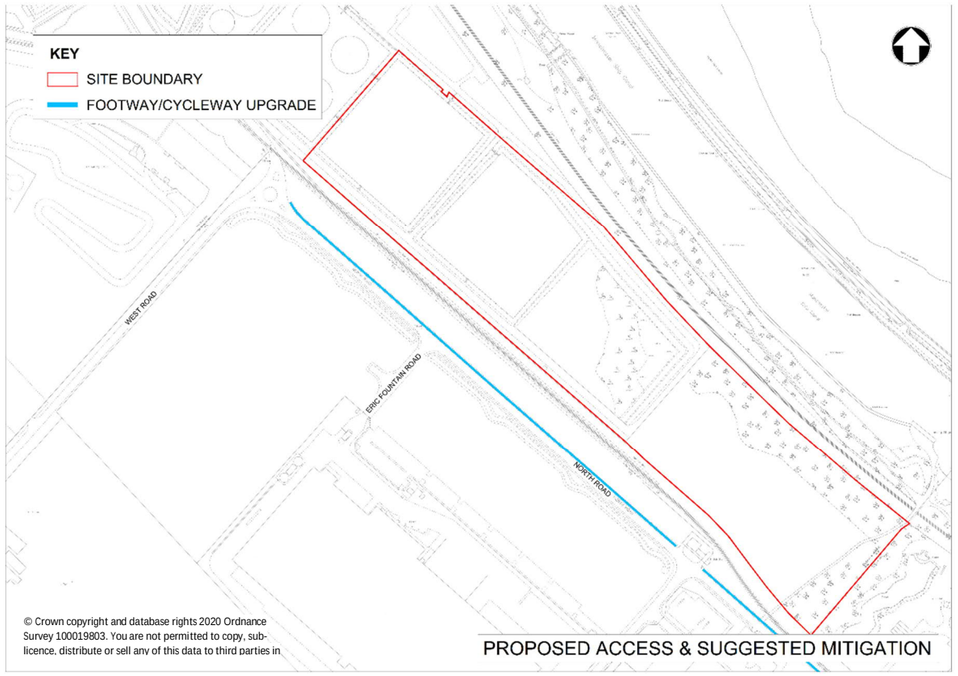
Cost summary for SA4.5

- N/A

Trip Generation Analysis

	AM Peak Hour (07:00-08:00)			PM Peak Hour (16:00-17:00)		
	IN	OUT	2-WAY	IN	OUT	2-WAY
B2 Vehicular Trips	111	19	138	13	102	115

Proposed Site Access Arrangement Plan



Source: Mott MacDonald

Prepared by: J. McManus	*Checked by: D. Blakey*	*Approved by: D. Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus	Site Visit Photos
<u>North:</u> • Utility apparatus doesn't appear to be within study area. <u>East:</u> • Utility apparatus doesn't appear to be within study area. <u>South:</u> • Electricity – 1 no. EHV (33kV) cable adjacent to Southern boundary at South-East. • Potable Water, Wastewater and Gas apparatus don't appear to be within study area. <u>West:</u> • Utility apparatus doesn't appear to be within study area.	
Potentially Affected Utilities	
None.	
Conclusions and suggested mitigation	
This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas. Based on the information obtained, no diversions appear to be required.	 Source: Mott MacDonald

RAG Status of Existing Utility Apparatus		Commentary	*Utilities don't appear to be affected.*

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

Site ref: EMP-SA5.1 - Peninsula Business Park, Moreton

SITE

Area	1.13ha
Location	Land at Peninsula Business Park, adjacent to Reeds Lane
Proposed land use	Employment – B2/B8

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The site is currently undeveloped and comprises vacant grassland
- The site is classed as greenfield land
- The site is bounded by the River Birket to the north, Reeds Lane to the west and the Hubron International/Merseycare Transport Services industrial site
- Reeds Lane is a two-way, single carriageway road with a speed limit of 30mph and footpaths on both sides
- The site lies adjacent to an existing priority junction which provides access from Reeds Lane into the Premier Foods industrial site via a private, unnamed road
- There are large residential areas to the north and south which are accessed via Birket Avenue and Kingsmead Road respectively. Industry and business occupy land to the east and west (on the opposite side of Reeds Lane)
- A 5-year Road Traffic Collision (RTC) analysis (2015-2019) does not show any recorded incidents along the access road or at the junction with Reeds Lane. A cluster of 3 slight incidents were recorded at the Reeds Lane/Birket Avenue priority junction approximately 100m meters to the north. There are no clusters of accidents involving vulnerable road users nearby. The analysis indicates that there are no significant road safety issues in immediate proximity to the site
- Two comments are noted on the Wirral Liveable Streets website close to the site, both submitted in relation to barriers restricting access for mobility impaired and non-standard cycles on the Wirral Circular Trail where it meets Reeds Lane (link, link)

Vehicular access

- The site is approximately 600m to the north of the A553 Hoylake Road and 800m to the south of the A551 Leasowe Drive via Reeds Lane
- Access to the site is currently through the industrial site (Merseycare Transport Services Ltd.) to the east of Reeds Lane
- Former access directly from Reeds Lane via a dropped kerb is currently unused and closed with a gate.

Walking / Cycling connectivity

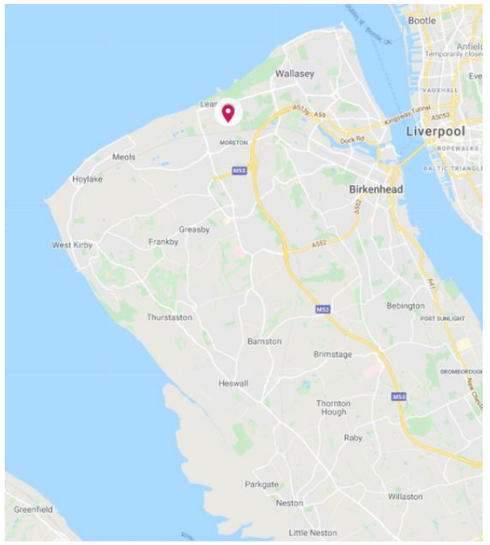
- Pedestrian footways are present on both sides of Reeds Lane, with the western path being separated from the carriageway by a linear green space, providing a buffer between vehicles and pedestrians
- There is a pedestrian refuge island on Reeds Lane, approximately 65m north of the proposed access point, allowing pedestrians to cross the road safely in two stages
- This pedestrian refuge island connects two sections of the Wirral Circular Trail, a footpath and cycle path which runs east-west and is located to the north of the site location
- A cycle path is provided along the footpath along Reeds Lane, however, this is only present between the Wirral Circular Path access points and has a length of approximately 50m
- The Wirral Circular Trail provides onward, off-road cycle connections to the east and west

Public Transport connectivity

- The nearest bus stops are located on Reeds Lane. Northbound, there is a stop located 180m north of the current access point as well as one located 70m to the south. To access both these stops safely, pedestrians must walk 120m north to the pedestrian refuge island to cross, Southbound, there is a stop located 65m from the access point
- These stops all feature a bus shelter, however, only the stop located 70m to the south features a bus bay
- The bus stops along Reeds Lane provide access to Moreton hourly, with New Brighton, Seacombe (Ferry), Woodside (Ferry), and Liverpool accessible at half hourly intervals from Monday – Sunday
- Several school bus services stop along Reeds Lane
- Leasowe Station, on the Wirral Line of Merseyrail is located around 340m to the south of the Premier Foods junction. It has regular service every 15 minutes between Liverpool and West Kirkby. This station is wheelchair and pram accessible, with parking and cycle racks
-

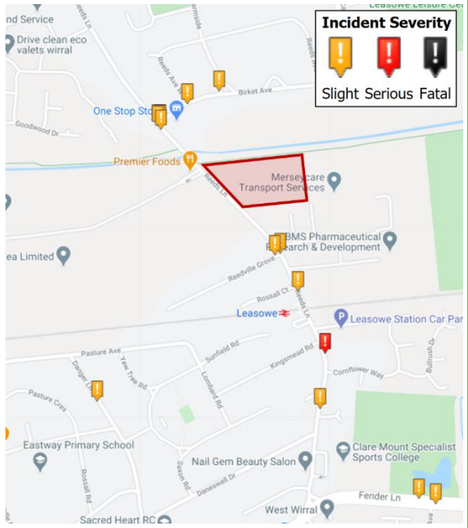
RAG Status of Existing Transport Scenario		Commentary	No significant issues were noted at this site. Site appears well suited for employment uses

Location



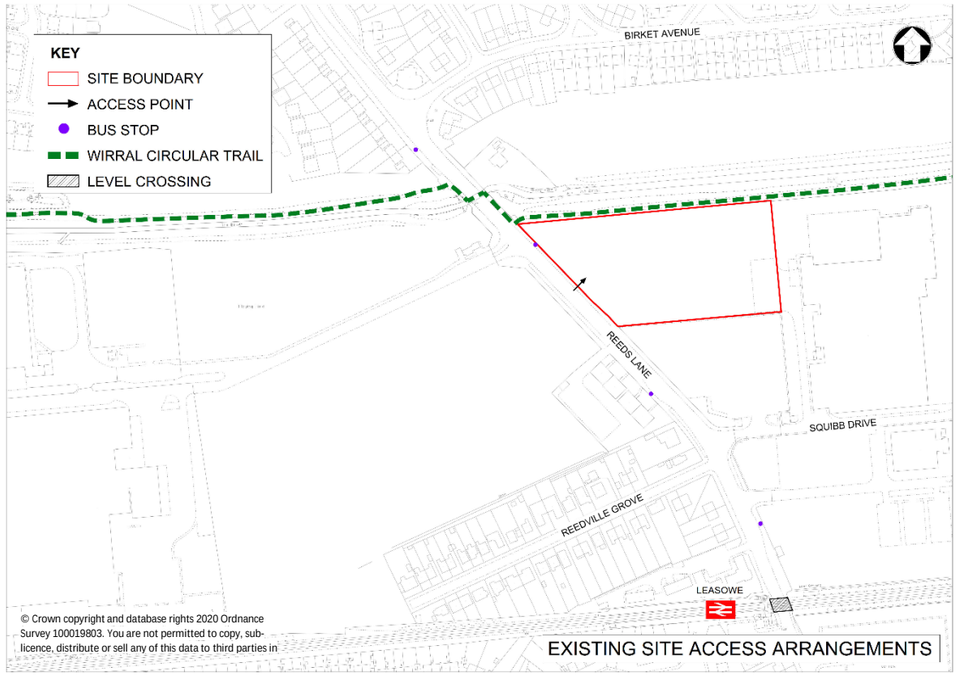
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan *(transport)*



Source: Mott MacDonald

PROPOSED SCENARIO

Proposed development and network impact

- Current assumptions are to develop approximately 40% of the 1.13ha net developable area with B2/B8 use class buildings. This results in a 0.45ha (4,520sqm) building GFA
- Applying this to trip rate factors generated within the TRICS database, indicates the likely AM and PM peak trip generation shown to the right
- This trip generation anticipated to be incurred by the development is not expected to have a material impact on the operation of the surrounding road network
- It should also be noted that two further employment site proposals (and a residential plot) are located immediately to the west of the site, which would also see access provided via Reeds Lane
- The transport assessment for this site should consider the scenario of all development proposals in this area coming forward

Comments and assumptions

- A new site access would be provided into the site from Reeds Lane. This would need to coordinate with other development proposals on the west side of Reeds Lane.
- The visibility splays on Reeds Lane are sufficient to accommodate these access points (70m each way based on a 30mph speed limit)

Conclusions and suggested mitigation

Conclusion:

- No significant issues were noted at this site

Mitigation Measures:

- Whilst the speed on Reeds Lane is 30mph, this may require traffic calming measures as given its straight, wide nature, it is likely to attract faster speeds in reality. This would require review and has therefore not been costed for at this stage
- It is also suggested that a crossing is provided on Reeds Lane to facilitate access to the bus stops. This could be incorporated into the design of the new site access.

Cost summary for SA5.1:

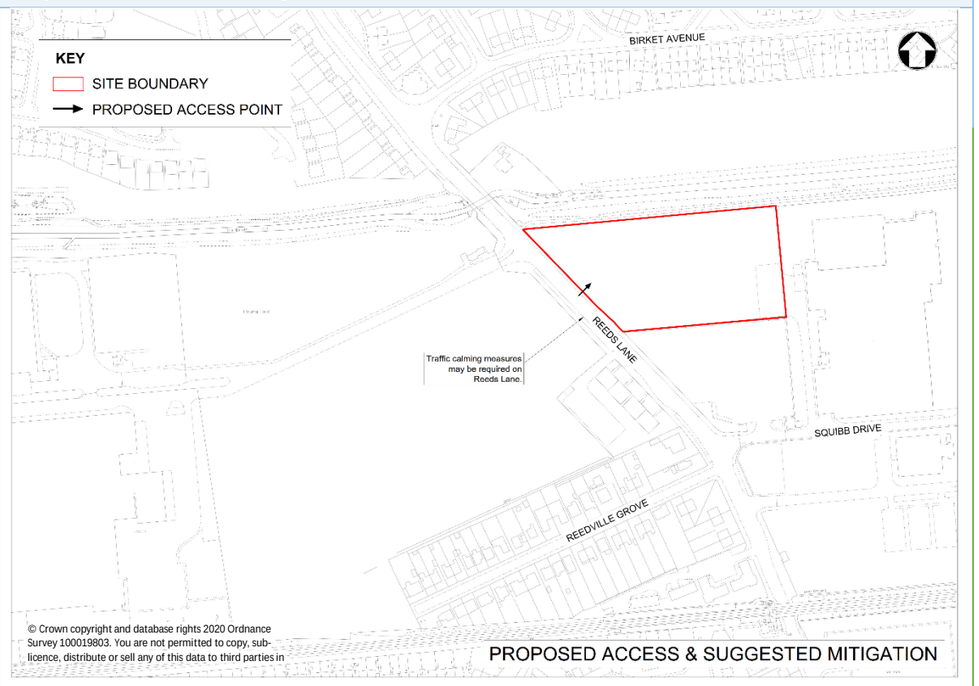
- New site access incorporating pedestrian crossing: £75,000 - £100,000

Trip Generation Analysis

	Trip Rates* *(per 100sqm GFA)*			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	18	4	22
PM peak (17:00-18:00)	0.088	0.340	0.428	4	15	19

**Trip rates derived from TRICS surveys for land use: 'Employment – Industrial Unit'*

Proposed Site Access Arrangement Plan



Source: Mott MacDonald

Prepared by: D. Blakey	Checked by: J. McManus	Approved by: D. Crockett	Date: 02/12/2021	Project Details	Wirral Local Plan Support: Additional sites review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

North:

- Electricity – 1 no. EHV (33kV) and 1 no. Pilot/Tele/Auxilliary cables adjacent to Northern boundary at North-West corner.
- Gas – 1 no. 268mm MP PE within proposed development at North-West.
- Potable Water and Wastewater apparatus don't appear to be within study area.

East:

- Utility apparatus doesn't appear to be within study area.

South:

- Wastewater - 1 no. Highway Surface Water Sewer (600mm Concrete) and 1 no. Surface Water Rising Main (400mm) originate from underground pumping station and wet well to the South of the site, they intersect the site boundary and exit the site at the Northern boundary. These sewers terminate at an outfall adjacent to The Birket.
- Potable Water, Electricity and Gas apparatus don't appear to be within study area.

West:

- Potable Water – 1 no. Trunk Main (450mm HDPE) and 1 no. Distribution Main (4/5" CI) within Reeds Lane.
- Wastewater – 1 no. Combined Sewer (375mm VC) within Reeds Lane.
- Electricity - 1 no. HV (11kV) cable adjacent to Western boundary at North-West corner.

Gas – 1 no. 268mm MP PE within proposed development at North-West.

Potentially Affected Utilities

South:

- Highway Surface Water Sewer (600mm Concrete) and Surface Water Rising Main (400mm) cross the site.

West:

- 1 no. 268mm MP PE at North-West.

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, several diversions will be required to progress with proposed works. The strategic surface water sewers will form a major constraint to any form of development. Please note, this area is also used as a methane capture location due to its previous use as a landfill site. Therefore, any building on top of said area will be highly constrained.

RAG Status of Existing Utility Apparatus		Commentary	*Strategic surface water infrastructure.* *Site within vicinity of methane collection apparatus of the landfill site. Construction for proposed development may be constrained due to this.*

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional sites review

Site ref: EMP-SA5.2 - Premier Brands, Reeds Lane – North of Access Road

SITE

Area	1.46ha
Location	Land east of Manor Bakeries and Typhoo, adjacent to Reeds Lane.
Proposed land use	Employment

TRANSPORT – EXISTING SCENARIO

Existing highway network

- The site currently comprises vacant grassland
- The site is classed as a greenfield land
- The site is located to the west of Reeds Lane, bounded by the River Birket to the north and an unnamed road which provides access to the Premier Foods employment site to the south. The access road forms a priority junction with Reeds Lane
- There are large, existing residential areas to the north and south which are accessed via Birket Avenue and Kingsmead Drive respectively
- Reeds Lane is a two-way, single carriageway road with a speed limit of 30mph and footpaths on both sides. A right-turn lane is present for traffic from the north turning into the Premier Foods site
- The site access road is currently limited to 20mph, with pavement and waiting restrictions spanning the northern edge
- The Reeds Lane/site access junction is only protected by waiting restrictions on the north side
- A 5-year Road Traffic Collision (RTC) analysis (2015-2019) does not show any recorded incidents along the access road or at the junction with Reeds Lane. A cluster of 3 slight incidents were recorded at the Reeds Lane/Birket Avenue priority junction approximately 100m meters to the north. There are no clusters of accidents involving vulnerable road users nearby. The analysis indicates that there are no significant road safety issues in immediate proximity to the site
- Two comments are noted on the Wirral Liveable Streets website close to the site, both submitted in relation to barriers restricting access for mobility impaired and non-standard cycles on the Wirral Circular Trail where it meets Reeds Lane (link, link)

Vehicular access

- The site is approximately 1km from the A553 via Reeds Lane
- Existing access to the sites is via the unnamed industrial standard access road which serves as a secondary access to the Manor Bakeries/Typhoo Tea/Premier Foods complex to the immediate west. The access road is currently private.
- There are no other access points directly into the sites from Reeds Lane

Walking / Cycling connectivity

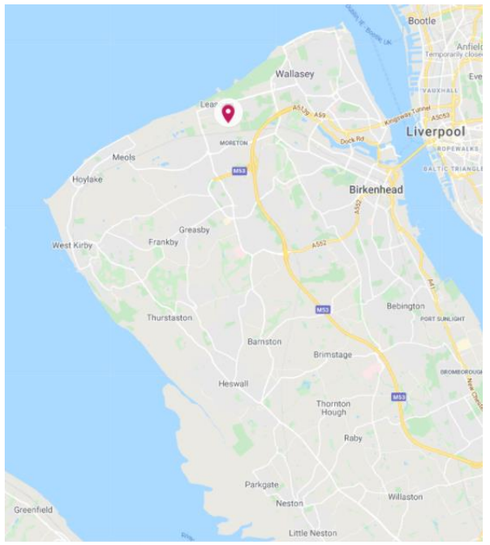
- Pedestrian footways are present on both sides of Reeds Lane, with the western side being separated from the carriageway by a linear green space, providing a buffer between vehicles and pedestrians
- There is a pedestrian refuge island on Reeds Lane, approximately 25m north of the Premier Foods junction, allowing pedestrians to cross the road in two stages. The crossing benefits from dropped kerb tactile paving
- This pedestrian refuge island connects two sections of the Wirral Circular Trail, a footpath and cycle path which runs east-west and is located to the north of the site
- A cycle path is provided along the footpath along Reeds Lane, however, this is only present between the Wirral Circular Path access points and has a length of approximately 50m
- The Wirral Circular Trail provides onward, off-road cycle connections to the east and west

Public Transport connectivity

- The nearest bus stops are located on Reeds Lane. Northbound, there is a stop located 100m north of the Premier Foods junction as well as one located 150m to the south. Southbound, there is a stop located opposite the junction however pedestrians must walk to the pedestrian refuge island to safely cross the road
- These stops all feature a bus shelter, however, only the stop located 150m south of the Premier Foods junction features a bus bay
- The bus stops along Reeds Lane provide access to Moreton hourly, with New Brighton, Seacombe (Ferry), Woodside (Ferry), and Liverpool accessible at half hourly intervals from Monday – Sunday
- Several school bus services stop along Reeds Lane
- Leasowe Station, on the Wirral Line of Merseyrail is located around 340m to the south of the Premier Foods junction. It has regular service every 15 minutes between Liverpool and West Kirkby. This station is wheelchair and pram accessible, with parking and cycle racks

RAG Status of Existing Transport Scenario		Commentary	No significant issues were noted at this site. Site appears well suited for employment uses

Location

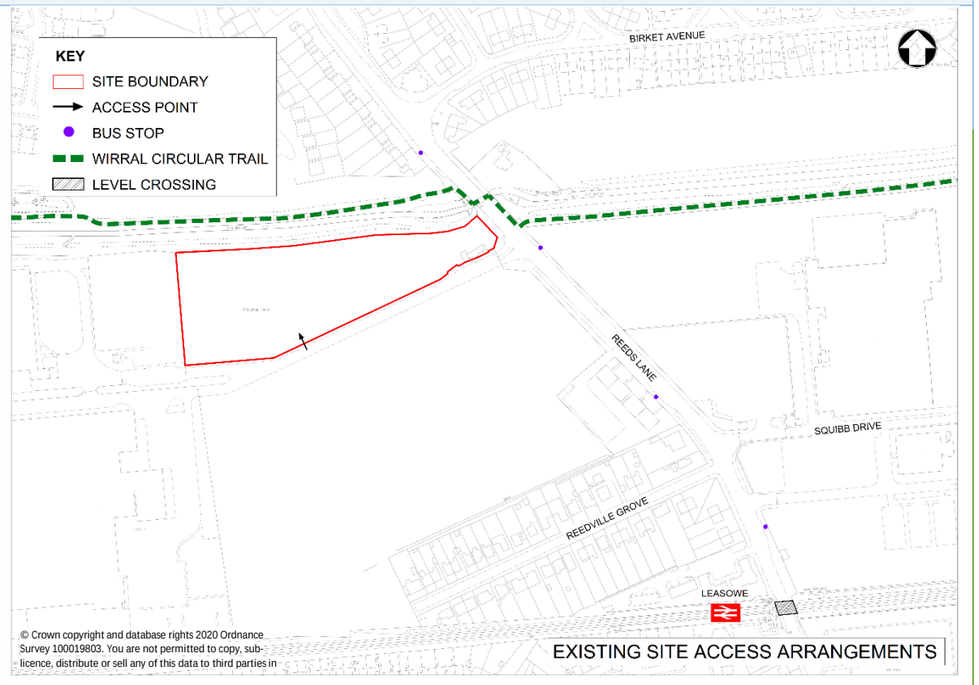


Source: *Google Maps*

5-Year Accident Analysis

Source: *CrashMap*

Site Plan *(transport)*



Source: Mott MacDonald

PROPOSED SCENARIO

Proposed development and network impact

- Current assumptions are to develop approximately 40% of the 1.46ha net developable area with B2/B8 use class buildings. This results in a 0.58ha (5,840sqm) building GFA
- Applying this to trip rate factors generated within the TRICS database, indicates the likely AM and PM peak trip generation shown to the right
- This trip generation anticipated to be incurred by the development is not expected to have a material impact on the operation of the surrounding road network
- It should also be noted that two further employment site proposals (and a residential plot) are located immediately to the south and east of the site, which would also see access provided via Reeds Lane
- The transport assessment for the site would need to take into account all development proposals in the area to understand cumulative transport impact

Comments and assumptions

- Premier Foods access is private, but will need to be used for the access to the proposed development site

Conclusions and suggested mitigation

Summary of issues:

- No significant issues were noted at this site

Recommendations:

- The bus stops on Reeds Lane should be upgraded to a category F, with 2 required (one each direction). Improvement would need to include access kerbs, clearway markings, shelter and timetable.
- Whilst the speed on Reeds Lane is 30mph, this may require traffic calming measures as given its straight, wide nature, it is likely to attract faster speeds in reality. This would require review and has therefore not been costed for at this stage
- It is also suggested that a controlled crossing is provided on Reeds Lane to facilitate access to the bus stops. This would need to coordinate with development proposals to the east of Reeds Lane.
- The site would be primarily accessed via the currently private road. The junction at Reeds Lane would require upgrading to improve pedestrian crossing facilities.

Cost summary for SA5.2: (duplicated with site SA5.3)

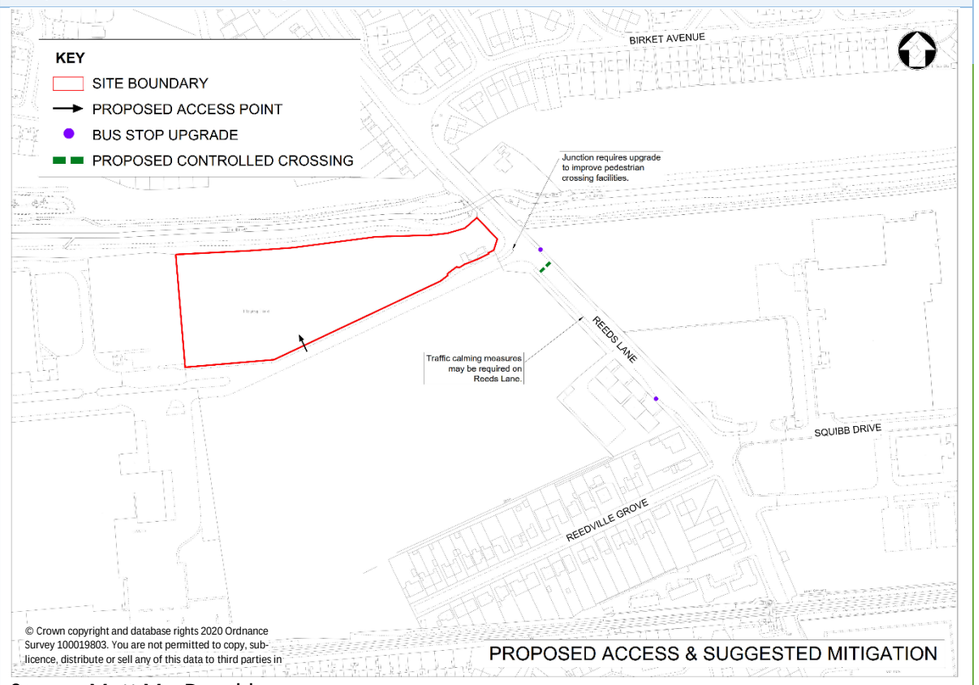
- Bus stop upgrades: £10,000 - £20,000
- Clearway Traffic Regulation Order: £5,000
- Controlled crossing: £40,000 - £60,000
- Reeds Lane site access junction improvement: £10,000 - £20,000

Trip Generation Analysis

	Trip Rates* *(per 100sqm GFA)*			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	23	5	28
PM peak (17:00-18:00)	0.088	0.340	0.428	5	20	25

**Trip rates derived from TRICS surveys for land use: 'Employment – Industrial Unit'*

Proposed Site Access Arrangement Plan



Source: Mott MacDonald

Prepared by: *D Blakey*	Checked by: *J McManus*	Approved by: *D Crockett*	Date: *02/12/2021*	Project Details	Wirral Local Plan Support: Additional sites review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

North:

- Wastewater - 1 no. Highway Surface Water Sewer (900mm) enters site at Southern boundary, traverses in a South-North direction through site. Exits at Northern boundary and outfalls adjacent to The Birket.
- Electricity – 1 no. HV (11kV) and 1 no. EHV (33kV) cables within Northern site boundary.
- Gas – 1 no. 250mm MP PE within Northern site boundary. Pipe terminates at gas governor at South-East corner, adjacent to Reeds Lane.
- Potable Water – doesn't appear to be within study area.

East:

- Potable Water – 1 no. Distribution Main (5" CI) and 1 no. Trunk Main (450mm HDPE) within Reeds Lane. 1 no Distribution Main (110mm PE) and 1 no. Trunk Main (160mm PE) within Western footpath of Reeds Lane. Pipes span towards Premier Foods.
- Wastewater – 1 no. Combined Sewer (375mm VC) within Reeds Lane.
- Electricity – 1 no. LV cable within Western footpath of Reeds Lane.
- Gas - 1 no. 125mm LP PE adjacent to gas governor at South-East corner.

South:

- Wastewater - 1 no. Highway Surface Water Sewer (900mm) enters site at Southern boundary, traverses in a South-North direction through site. Exits at Northern boundary and outfalls adjacent to The Birket.
- Potable Water, Electricity and Gas apparatus don't appear to be within study area.

West:

Utility apparatus doesn't appear to be within study area.

Potentially Affected Utilities

North:

- 1 no. 250mm MP PE bisecting site in East-West direction.
- 1 no. HV (11kV) and 1 no. EHV Cables.
- 1 no. Highway Surface Water Sewer (900mm)
- Bidston Gas Methane capture membrane

East:

- 1 no. LP 125mm PE.

South:

1 no. Highway Surface Water Sewer (900mm).

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, major apparatus crosses within the site itself. This will form a major constraint to proposed works. Please note, this area is also used as a methane capture location due to its previous use as a landfill site. Therefore, any building on top of said area will be highly constrained. In addition to which, an existing 900mm Highway Surface Water Sewer traverses the site which will be protected by easements, which will constrain the future possibilities of development within this site.

RAG Status of Existing Utility Apparatus		Commentary	*Major diversions required.*

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional sites review

Site ref: EMP-SA5.3 - Premier Brands, Reeds Lane – South of Access Road

SITE

Area	1.93ha
Location	Premier Brands, Reeds Lane, Moreton
Proposed land use	Employment – B2/B8

TRANSPORT – EXISTING SCENARIO

Existing highway network

- The site currently comprises vacant grassland formerly occupied by a company playing pitch
- The site is classed as a greenfield land
- The site is located to the west of Reeds Lane, bounded an unnamed road which provides access to the Premier Foods employment site to the west, and to the south by Merseyrail line. The access road forms a priority junction with Reeds Lane
- There are large, existing residential areas to the north and south which are accessed via Birket Avenue and Kingsmead Road respectively
- Reeds Lane is a two-way, single carriageway road with a speed limit of 30mph and footpaths on both sides. A right-turn lane is present for traffic from the north turning into the Premier Foods site
- The site access road is currently limited to 20mph, with pavement and waiting restrictions spanning the northern edge
- The Reeds Lane/site access junction is only protected by waiting restrictions on the north side
- A 5-year Road Traffic Collision (RTC) analysis (2015-2019) does not show any recorded incidents along the access road or at the junction with Reeds Lane. A cluster of 3 slight incidents were recorded at the Reeds Lane/Birket Avenue priority junction approximately 100m meters to the north. There are no clusters of accidents involving vulnerable road users nearby. The analysis indicates that there are no significant road safety issues in immediate proximity to the site
- Two comments are noted on the Wirral Liveable Streets website close to the site, both submitted in relation to barriers restricting access for mobility impaired and non-standard cycles on the Wirral Circular Trail where it meets Reeds Lane (link, link)

Vehicular access

- The site is approximately 1km from the A553 via Reeds Lane
- Existing access to the site is via the unnamed industrial standard access road which serves as a secondary access to the Manor Bakeries/Typhoo Tea/Premier Foods complex to the immediate west
- There are no other access points directly into the sites from Reeds Lane

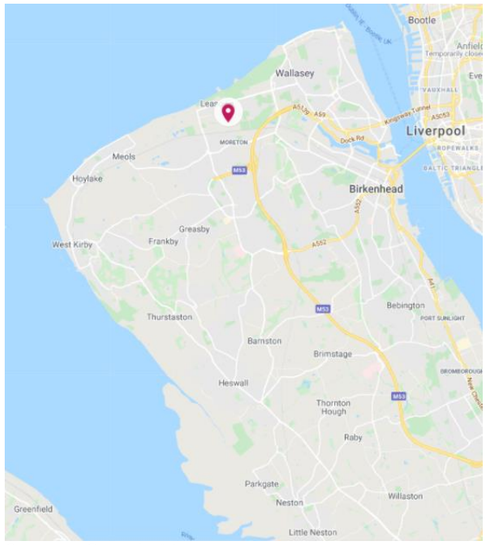
Walking / Cycling connectivity

- Pedestrian footways are present on both sides of Reeds Lane, with the western side being separated from the carriageway by a linear green space, providing a buffer between vehicles and pedestrians
- There is a pedestrian refuge island on Reeds Lane, approximately 25m north of the Premier Foods junction, allowing pedestrians to cross the road in two stages. The crossing benefits from dropped kerb tactile paving
- This pedestrian refuge island connects two sections of the Wirral Circular Trail, a footpath and cycle path which runs east-west and is located to the north of the site
- A cycle path is provided along the footpath along Reeds Lane, however, this is only present between the Wirral Circular Path access points and has a length of approximately 50m
- The Wirral Circular Trail provides onward, off-road cycle connections to the east and west

Public Transport connectivity

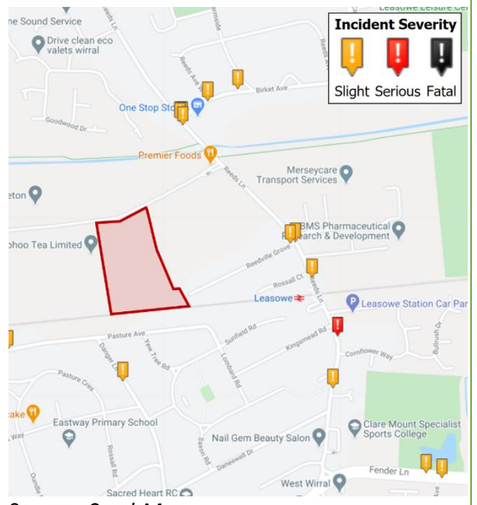
- The nearest bus stops are located on Reeds Lane. Northbound, there is a stop located 100m north of the Premier Foods junction as well as one located 150m to the south. Southbound, there is a stop located opposite the junction however pedestrians must walk to the pedestrian refuge island to safely cross the road
- These stops all feature a bus shelter, however, only the stop located 150m south of the Premier Foods junction features a bus bay. Neither of the stops have access kerbs of clearway road markings.
- The bus stops along Reeds Lane provide access to Moreton hourly, with New Brighton, Seacombe (Ferry), Woodside (Ferry), and Liverpool accessible at half hourly intervals from Monday – Sunday
- Several school bus services stop along Reeds Lane
- Leasowe Station, on the Wirral Line of Merseyrail is located around 340m to the south of the Premier Foods junction. It has regular service every 15 minutes between Liverpool and West Kirkby. This station is wheelchair and pram accessible, with parking and cycle racks

Location



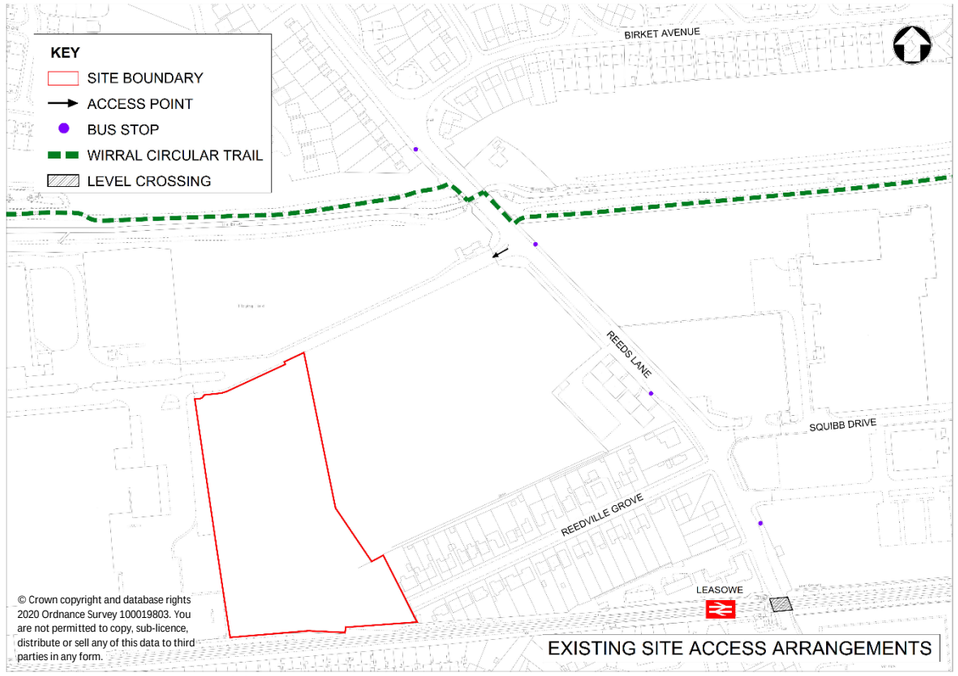
Source: *Google Maps*

5-Year Accident Analysis



Source: *CrashMap*

Site Plan *(transport)*



Source: Mott MacDonald

RAG Status of Existing Transport Scenario		Commentary	No significant issues were noted at this site. Site appears well suited for employment uses

PROPOSED SCENARIO

Proposed development and network impact

- Current assumptions are to develop approximately 40% of the 1.93ha net developable area with B2/B8 use class buildings. This results in a 0.0.77ha (7,720sqm) building GFA
- Applying this to trip rate factors generated within the TRICS database, indicates the likely AM and PM peak trip generation shown to the right
- This trip generation anticipated to be incurred by the development is not expected to have a material impact on the operation of the surrounding road network
- It should also be noted that two further employment site proposals (and a residential plot) are located immediately to the north and east of the site, which would also see access provided via Reeds Lane
- The transport assessment for the site should consider the cumulative transport impact for all sites coming forward.

Comments and assumptions

- Premier Foods access is private, but should be used for the access to the proposed development site

Conclusions and suggested mitigation

Summary of issues:

- No significant issues were noted at this site

Recommendations:

- The bus stops on Reeds Lane should be upgraded to a category F, with 2 required (one each direction). Improvement would need to include access kerbs, clearway markings, shelter and timetable.
- Whilst the speed on Reeds Lane is 30mph, this may require traffic calming measures as given its straight, wide nature, it is likely to attract faster speeds in reality. This would require review and has therefore not been costed for at this stage
- It is also suggested that a controlled crossing is provided on Reeds Lane to facilitate access to the bus stops. This would need to coordinate with development proposals to the east of Reeds Lane.
- The site would be primarily accessed via the currently private road. The junction at Reeds Lane would require upgrading to improve pedestrian crossing facilities

Cost summary for SA5.3: (duplicated with site SA5.2):

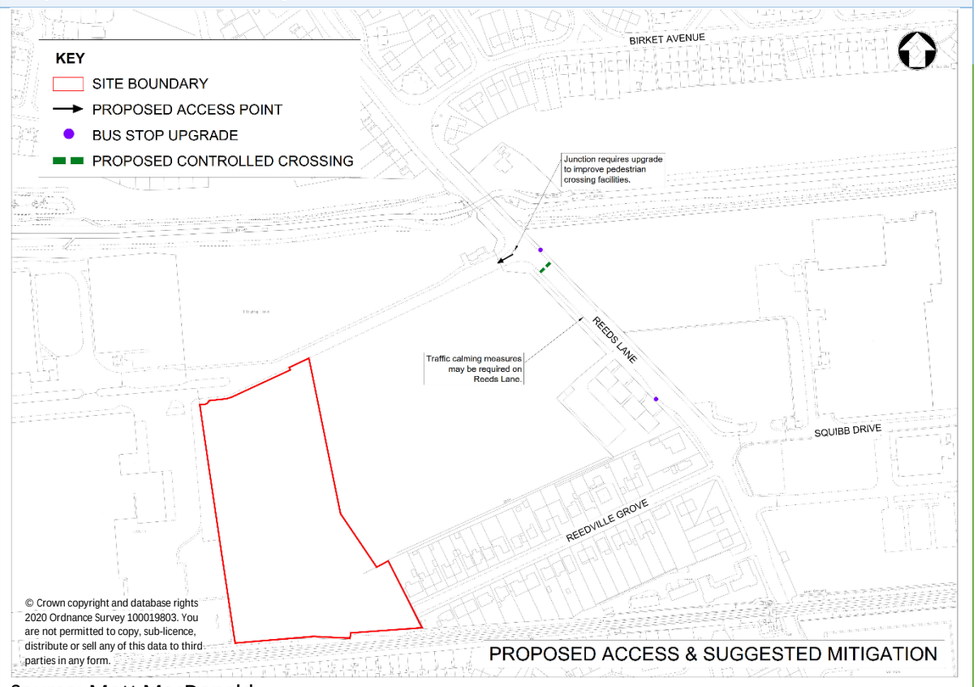
- Bus stop upgrades: £10,000 - £20,000
- Clearway Traffic Regulation Order: £5,000
- Controlled crossing: £40,000 - £60,000
- Reeds Lane site access junction improvement: £10,000 - £20,000

Trip Generation Analysis

	Trip Rates* *(per 100sqm GFA)*			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	*31*	*7*	*37*
PM peak (17:00-18:00)	0.088	0.340	0.428	*7*	*26*	*33*

**Trip rates derived from TRICS surveys for land use: 'Employment – Industrial Unit'*

Proposed Site Access Arrangement Plan



Source: Mott MacDonald

Prepared by: *D Blakey*	Checked by: *J McManus*	Approved by: *D Crockett*	Date: *02/12/2021*	Project Details	Wirral Local Plan Support: Additional sites review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

North:

- Wastewater - 1 no. Highway Surface Water Sewer (900mm CO) enters site at Southern boundary, traverses through site, exits at Northern boundary and subsequently discharges adjacent to The Birket.
- Potable Water, Electricity and Gas apparatus don't appear to be within study area.

East:

- Utility apparatus doesn't appear to be within study area.

South:

- Wastewater - 1 no. Highway Surface Water Sewer (900mm CO) enters site at Southern boundary, traverses through site, exits at Northern boundary and subsequently discharges adjacent to The Birket.
- Potable Water, Electricity and Gas apparatus don't appear to be within study area.

West:

- Wastewater - 1 no. Combined Sewer (225/300mm VC) within Southern site boundary.
- Potable Water, Electricity and Gas apparatus don't appear to be within study area.

Potentially Affected Utilities

- 1 no. Highway Surface Water Sewer (900mm CO)
- 1 no. Combined Sewer (225/300mm VC)

Bidston Gas Methane capture membrane

Conclusions and suggested mitigation

This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas.

Based on the information obtained, major apparatus crosses within the site itself. This will form a major constraint to proposed works. Please note, this area is also used as a methane capture location due to its previous use as a landfill site. Therefore, any building on top of said area will be highly constrained. In addition to which, an existing 900mm Highway Surface Water Sewer traverses the site which will be protected by easements, which will constrain the future possibilities of development within this site.

RAG Status of Existing Utility Apparatus		Commentary	*Major diversions required.*

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional sites review

Site ref: EMP-SA5.4 – Tarran IE

SITE

Area	0.24ha
Location	Tarran Industrial Estate, Tarran Way N, Birkenhead, Greasby, Wirral
Proposed land use	B2 General Industry; B8 Storage or Distribution

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The site is situated within Tarran Industrial Estate and is bound by Tarran Way North to the north and Pasture Road to the east. To the west of the site is the existing Screwfix site, and Firewood Timber and Building Supplies is positioned to the south, both accessed via Tarran Way East.
- Pasture Road is 30mph with one lane in both the northbound and southbound directions. To the north of the site, Pasture Road it links with Leasowe Promenade, and to the south, it connects to the A553 Hoylake Road and Upton Road via a roundabout, with the latter facilitating access the M53 junction 2A.
- Tarran Way North is 20mph with one-lane in the eastbound directions. It is roughly 6.5m wide and facilitates access to a number of industrial units based in the Tarran Industrial Estate, thus experiences on-street parking although there is no provision.
- Both roads bounding the site benefit from an adequate amount of lighting columns.
- 5-year Road Traffic Collision (RTC) analysis from 2015-2019 indicates 2 slight incidents adjacent to the proposed development site, of which, 1 cyclist was involved. To the north of the site, 2 RTCs were recorded at the junction between Pasture Road / Leasowe Road / Lingham Lane, of which 1 cyclist was involved. The infrequent number of collisions recorded in the 5-year period indicates no issue in relation to road safety adjacent the site.

Vehicular access

- There is an existing access point to the site on Pasture Road. However, it would only be capable of accommodating one-way movements as it is approximately 3.2m wide. Although the access point is narrow, it would benefit from adequate visibility if it was to be utilised in the future.

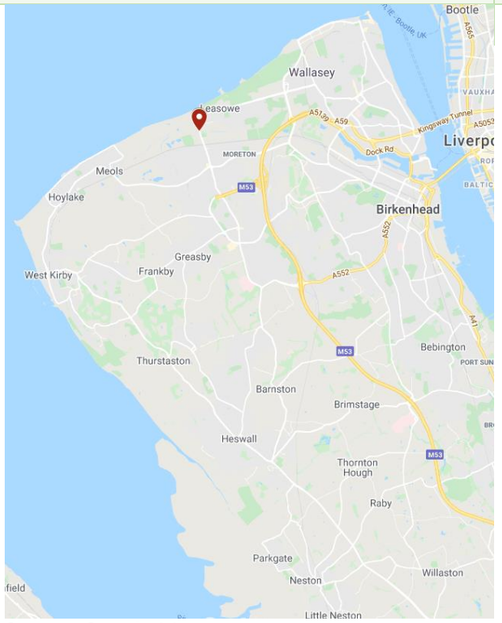
Walking / Cycling connectivity

- A public right of way (PROW) runs approximately 41m to the north of the site along the Birket River, accessed via gates on the eastern and western sides of Pasture Road. This popular walking/cycling route forms part of the Wirral Circular Trail, and provides a link with North Wirral Coastal Park. There is an uncontrolled pedestrian crossing, with a pedestrian refuge island on Pasture Road between the eastern and western gates to the PROW.
- Dropped kerbs are provided at the junction between Pasture Road / Tarran Way N, however there is no tactile paving.
- Although there are no recognised Sustrans cycle routes in the vicinity of the development site, there is an off-road cycle path, roughly 80m in length, along Pasture Road which links the east and western sections of the Wirral Circular Trail. Pasture Road is also identified as a 'suggested route – level 3 busier roads' in the Wirral Cycle Map.
- Footpaths along Pasture Road are of adequate width, particularly on the eastern side. However, footways on Tarran Way North are narrow, with limited scope to widen.
- There are 4 comments on the Wirral Liveable Streets regarding the gate facilitating access to the PROW north of the development site. It is noted that these gates are not DDA adequate, and should be upgraded.

Public Transport connectivity

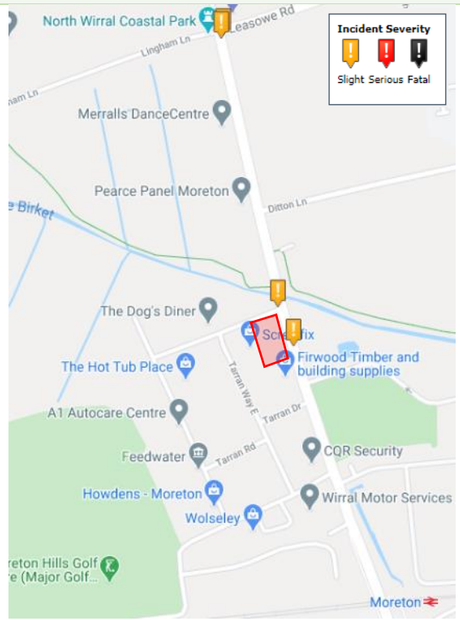
- Moreton railway station is situated approximately 550m to the south of the proposed development site, accessible via an 8-minute walk on Pasture Road. It is situated on the West Kirkby branch of the Wirral Line, forming part of the Merseyrail network. Services from this station include:
  - West Kirby – 2 services per hour
  - Liverpool Central – 2 services per hour
- The closest bus stop is located approximately 160m to the south of the site on Pasture Road, and is of a high quality, providing shelter from wind and rain. The stop is served by the following services:
  - 1/1C: Moreton Circular (via Leasowe Road) – 1 service per hour

Location



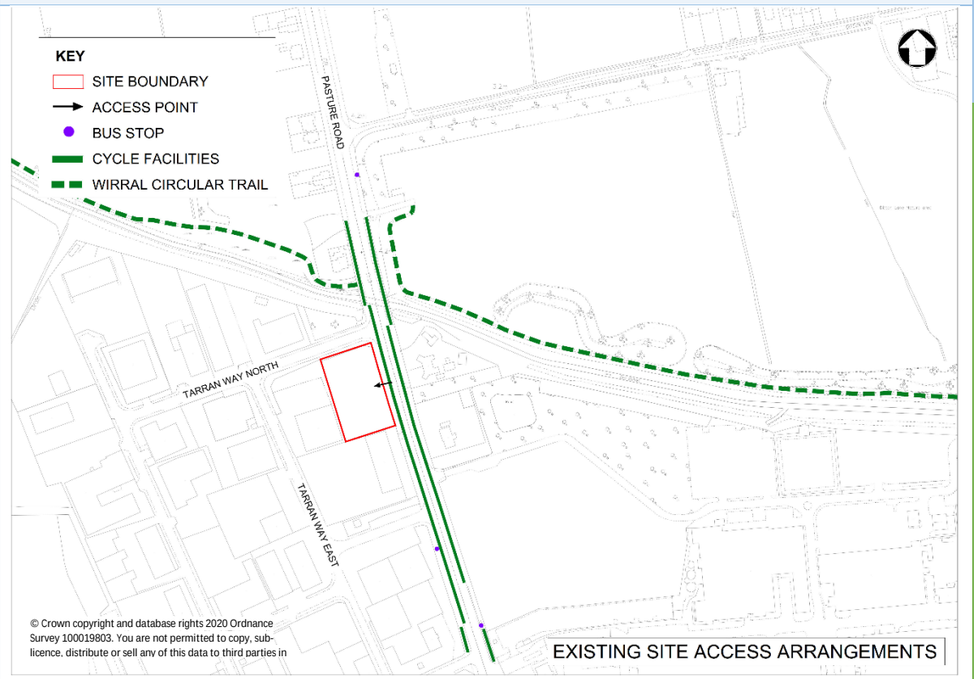
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan *(transport)*



Source: Mott MacDonald

RAG Status of Existing Transport Scenario		Commentary	Proposed land uses would fit well within the Tarran Industrial Estate.

PROPOSED SCENARIO

Proposed development and network impact

- The site has been allocated for B2 general Industry or B8 storage/distribution use.
- Current assumptions are to develop approximately 40% of the 0.24ha net developable area with B2/B8 uses. This equates to 0.10ha (960sqm) of building GFA.
- Applying this to trip rate factors, generated within the TRICS database, indicates the likely AM and PM peak trip generation shown in the adjacent table.
- The number of trips estimated to be generated by the development site is negligible and would not have an adverse impact on the adjacent road network. However, to ensure adequate access design, these will need to be reviewed in a transport statement to support the planning for the site when more details are known about the proposed land-use.

Comments and assumptions

- As Tarran Way North is narrow, on-street parking would impede access from this road, particularly for larger vehicles.
- Proposed use classes would fit well within the existing Tarran Industrial Estate.
- Issues have been noted on Pasture Road with regard to vehicular speeds. It is one of Wirral's camera van enforcement sites.
- As part of the residential development site approved on the existing Typhoo site (to the east of the development site), improvements are planned, which form part of a Section 106 agreement, which include the upgrading of existing bus stops, introduction of speed indicator devices, central hatching and pedestrian refuge islands along Pasture Road.

Conclusions and suggested mitigation

- There should be no issues with re-establishing the access via Pasture Road, although the junction would need to conform with DMRB standards. There appears to be adequate spacing between the nearby junctions, and visibility appears to be adequate.
- The aforementioned issues with regard to an access point off Tarran Way North indicate that it would be difficult to achieve a safe access via this point. Site access will need to incorporate dropped kerbs and tactile paving.

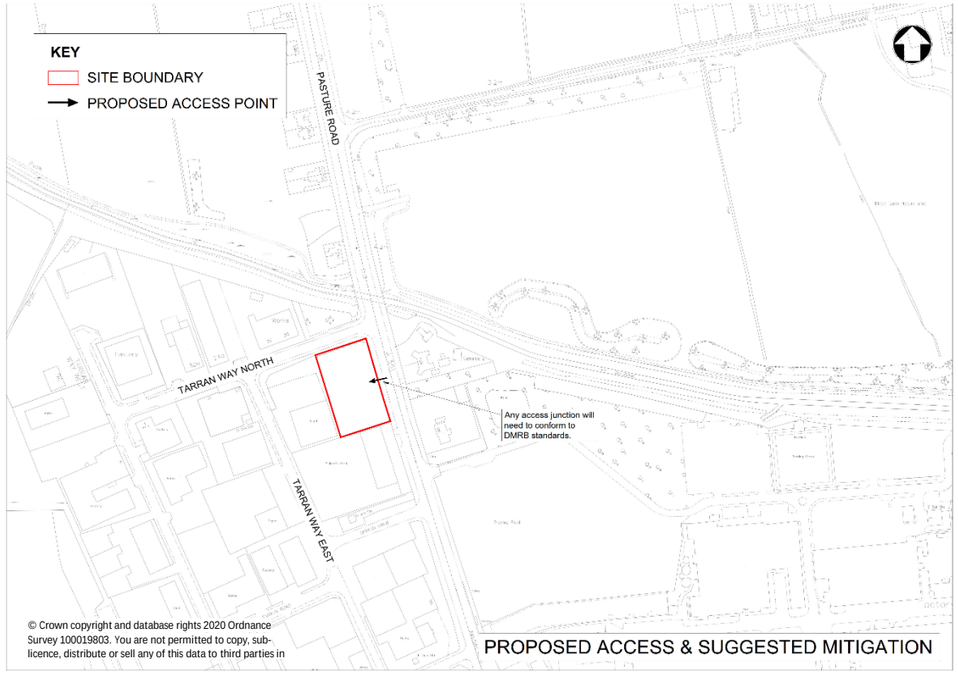
Cost summary for EMP-SA5.4:

- Site access from Pasture Road: £50,000 - £75,000

Trip Generation Analysis

	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	4	1	5
PM peak (17:00-18:00)	0.088	0.340	0.428	1	3	4

Proposed Site Access Arrangement Plan



Source: Mott MacDonald

Prepared by: J. McManus	*Checked by: D. Blakey*	*Approved by: D. Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus
North: • Utility apparatus doesn't appear to be within study area. East: • Electricity – 1 no. LV and 1 no. HV (11kV) within Western footway of Pasture Road. • Gas – 1 no. 180mm LP PE within Western footway of Pasture Road. • Potable Water and Wastewater apparatus don't appear to be within study area. South: • Utility apparatus doesn't appear to be within study area. West: • Utility apparatus doesn't appear to be within study area.
Potentially Affected Utilities
None.
Conclusions and suggested mitigation
This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas. Based on the information obtained, no diversions appear to be required.

RAG Status of Existing Utility Apparatus		Commentary	*Utilities do not appear to be affected.*

Site Visit Photos

Source: Mott MacDonald

Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

Site ref: EMP-RA3.1 - Twelve Quays Morpeth Waterfront

SITE

Area	1.36ha
Location	Twelve Quays, Morpeth Waterfront, Birkenhead
Proposed land use	Employment – B2/B8

TRANSPORT

EXISTING SCENARIO

Existing highway network

- Site consists of reclaimed and vacant brownfield land
- Site lies within an existing employment area, adjacent to occupied employment sites and an active Ro-Ro ferry terminal to the immediate north
- The site is bounded by Morpeth Wharf to the north, the River Mersey to the east, Morpeth Dock to the south and a private access road to the Tipografic site to the west
- Morpeth Wharf runs a two-way single carriageway, connecting to the A554 Tower Road local distributor via Tower Wharf and Egerton Wharf to the west and south
- The Wirral Circular Trail runs along the north and east edges of the site
- There are currently no waiting restrictions alongside the site, although these do appear approximately 100 meters from the site and continue up to the A554 Tower Road. Where there are no waiting restriction, HGV's often layover.
- Morpeth Wharf benefits from good street lighting and pavements on both sides, segregated from the road carriageway by verges
- A 5-year Road Traffic Collision (RTC) analysis (2015-2019) shows no incidents were recorded around the site, while no incident clusters were recorded on the access route from the A554 Tower Road. It is thus concluded that there are no significant road safety issues in immediate proximity to the site
- Two comments are noted on the Wirral Liveable Streets website at the proposed site (link, link). Both refer to a level change issue on the Wirral Circular Trail to the east of the site

Vehicular access

- This site can be accessed is via Morpeth Wharf, via a priority-controlled roundabout with Tower Wharf and Egerton Wharf approximately 300 meters to the west which both provide strategic connectivity to the A554 Tower Road to the West and South via signalised T-junctions (Note, at the time of writing this document Tower Road has closed and being improved with a public realm scheme – as part of these works the signals will be removed)
- All roads mentioned provide two-way single carriageway access
- There is currently no access infrastructure onto the site itself
- A potential access on the northern edge of the site onto Morpeth Wharf would likely comply with visibility splay requirements. However, ideally the site would be accessed from the existing estate road to the east of the site – subject to landowners agreement.

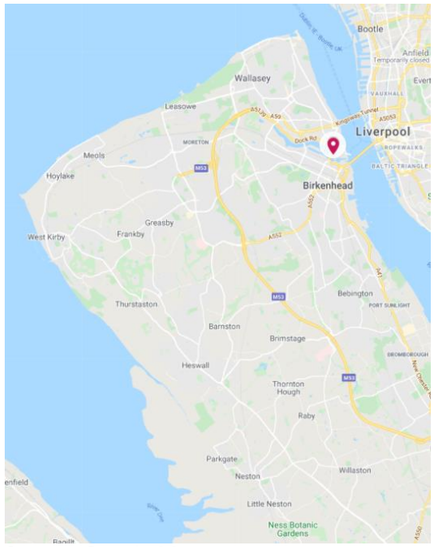
Walking / Cycling connectivity

- Morpeth Wharf benefits from pavements along both sides, segregated from the road carriageway by verges
- Non-tactile dropped kerbs facilitate access across side roads and around the roundabout with Egerton Wharf and Tower Wharf
- All three roads are well lit through street lighting
- The site benefits from strong cycling connectivity, with Morpeth Wharf lying on the Wirral Circular Trail which provides onward cycling connectivity around the Wirral Coast
- Marked on-road cycle lanes along the A5029 Rendel Street also provide cycling connectivity into Central Birkenhead
- The section of the Wirral Circular Trail that borders the eastern edge of the site is classed as a public right of way

Public Transport connectivity

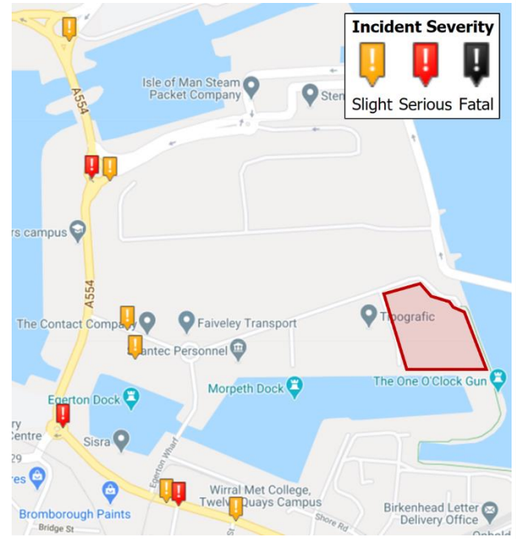
- The nearest exiting bus stops are located on the A554 Tower Road and the A554 Canning Street to the west and south, both approximately 500 meters walk from the site
- Good quality pavement and footways are provided along both walking routes, however, although both pairs of bus stops are located by signalised junctions, neither offer signalised crossing facilities. Islands are instead offered to allow uncontrolled staggered road crossings. These arrangements will change following completion of the Tower Road public realm scheme.
- The bus stops offer the following services:
    - 409: Wallasey Village – Woodside Circular

Location



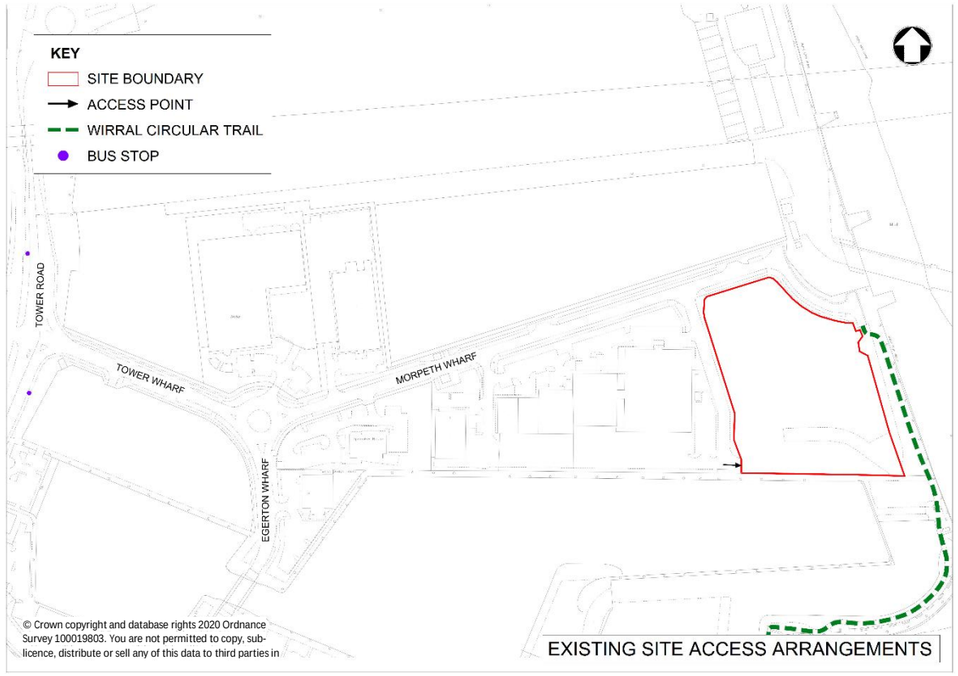
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan *(transport)*



Source: Mott MacDonald

PROPOSED SCENARIO

- 411: New Brighton – Birkenhead Circular
- 811: Leasowe or Moreton Cross – Broughton Shopping Park

- Hamilton Square is the nearest rail station at an approximate 15-minute walk from the site via pavements along the road but again lacking signalised crossing of the A554 Canning Street. The station benefits from 12 secure cycle parking spaces and is wheelchair accessible. It provides strong rail connectivity to the following lines
  - Liverpool Central – New Brighton
  - Liverpool Central – West Kirby
  - Liverpool Central – Ellesmere Port
  - Liverpool Central – Chester
- As part of the Wirral Waters East Float regeneration initiative, a Streetcar tram based system is being proposed. The first is planned as an extension to the existing heritage tram line at Canning Street, run along Egerton Wharf and Tower Wharf and terminate on Tower Road. No timescales are currently available for implementation.

RAG Status of Existing Transport Scenario		Commentary	No significant issues were noted at this site. Site appears well suited for employment uses

Proposed development and network impact

- Current assumptions are to develop approximately 40% of the 1.36ha net developable area with B2/B8 use class buildings. This results in a 0.54ha (5,440sqm) building GFA
- Applying this to trip rate factors generated within the TRICS database, indicates the likely AM and PM peak trip generation shown to the right
- This trip generation anticipated to be incurred by the development is not expected to have a material impact on the operation of the surrounding road network
- It should also be noted that an additional 0.91ha employment site has also been included in the Local Plan which would likely also be accessed via Tower Wharf

Trip Generation Analysis

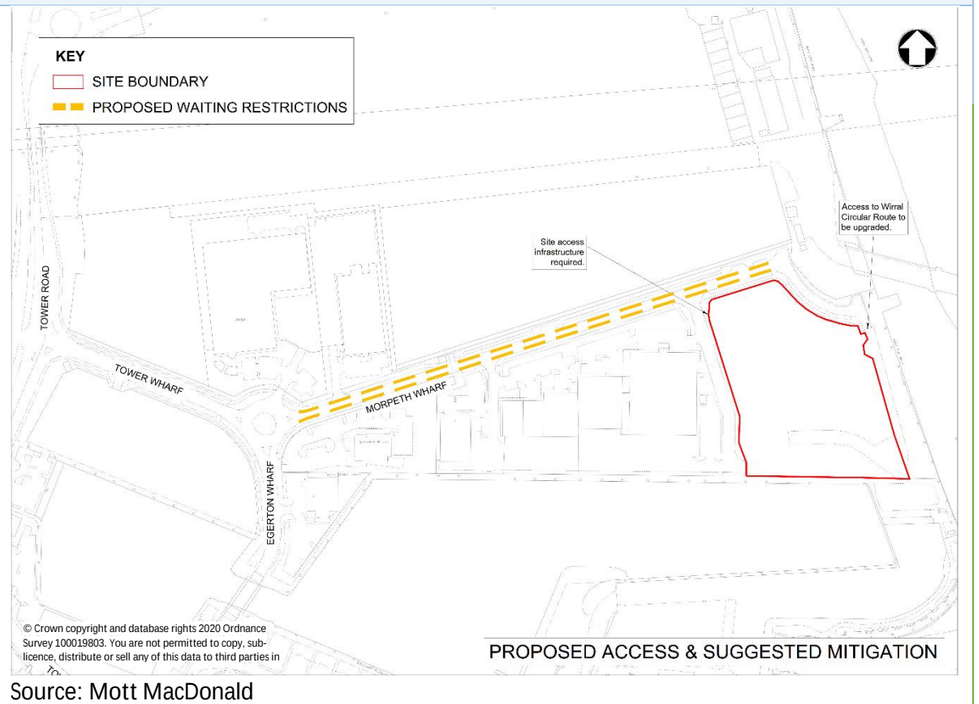
	Trip Rates* *(per 100sqm GFA)*			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	22	5	26
PM peak (17:00-18:00)	0.088	0.340	0.428	5	18	23

**Trip rates derived from TRICS surveys for land use: 'Employment – Industrial Unit'*

Comments and assumptions

- The public right of way to the east of the site will need to be maintained
- Access to the site could be achieved to the north via Morpeth Wharf, but ideally (subject to land ownership) would be from the west via an existing estate road

Suggested Site Access & Mitigation Plan



Source: Mott MacDonald

Conclusions and suggested mitigation

Summary of issues:

- No significant issues were noted at this site

Recommendations:

- Requires site access infrastructure
- Waiting restrictions should be extended along both sides of Morpeth Wharf to prevent HGV's laying over
- Access to the Wirral Circular route will require an upgrade to ensure it is DDA compliant

Cost summary for RA3.1:

- Site access: £50,000 - £75,000
- Waiting restrictions: £5,0000
- Upgrade to access to Wirral Circular: £5,000

Prepared by: *D Blakey*	Checked by: *J McManus*	Approved by: *D Crockett*	Date: *02/12/2021*	Project Details	Wirral Local Plan Support: Additional sites review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus					
North: • Potable Water – 1 no. Distribution Main (100/200mm uPVC) within Southern footway of Morpeth Wharf. • Wastewater – 1 no. Foul Rising Main (200mm PE) within Southern footway of Morpeth Wharf. 1 no. Highway Surface Water Sewer (1200mm Concrete) within Morpeth Wharf. • Gas – 1 no. 250mm LP PE within Southern footway of Morpeth Wharf and 1 no. LP 80mm PE supply into proposed development. • Electricity - doesn't appear to be within study area. East: • Utility apparatus doesn't appear to be within study area. South: • Utility apparatus doesn't appear to be within study area. West: Utility apparatus doesn't appear to be within study area.					
Potentially Affected Utilities					
None.					
Conclusions and suggested mitigation					
This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas. Based on the information obtained, no diversions appear to be required.					
RAG Status of Existing Utility Apparatus		Commentary	*Utilities don't appear to be affected.*		
Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 02/12/2021*	Project Details	Wirral Local Plan Support: Additional sites review

Site ref: EMP-SA2.1 Cammell Laird Site

SITE

Area	*5.52ha*
Location	Campbeltown Rd, Tranmere, Birkenhead, Wirral
Proposed land use	B2 General Industry; B8 Storage or Distribution

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The site is bound by Campbeltown Road to the west and the River Mersey to the east, Tranmere Oil Trail to the south, and an existing Cammell Laird facility to the north. The site is situated within the existing Lairdside Technology Park.
- Numerous access junctions to local businesses within Lairdside Technology Park exist along Campbeltown Road, with associated internal roads.
- Campbeltown Road is 30mph with one lane in both the northbound and southbound directions. However, due to the straight alignment of the road, speeding traffic is a known problem.
- Amenities such as restaurants, local shops and pubs are located approximately 850m to the north (Birkenhead), and 450m to the south (Rock Ferry). Adequate street lighting is also provided along Campbeltown Road.
- To the north and south, Campbeltown Road provides a direct link with the A41 New Chester Road. The A41 forms part of the Strategic Road Network (SRN) and, on a wider scale, links the proposed development site with settlements in Birkenhead to the north, and New Ferry, Port Sunlight and Bromborough to the south. Further to the south, it links with junction 5 of the M53, which facilitates access to major cities such as Chester and Manchester.
- 5-year Road Traffic Collision (RTC) analysis indicates 1 slight incident along Campbeltown Road adjacent to the development site, of which no vulnerable road users were involved. To the north, a cluster of incidents have been recorded at, or on approach to, the A41 / B5149 roundabout. 11 RTCs (8 slight, 3 serious) were recorded over the 5-year period, 2 of which involved pedestrians (1 slight and 1 serious). Likewise, to the south at the roundabout junction between the A41 / B5136 a total of 6 RTCs were recorded (4 serious, 3 slight). Cyclists were involved in 2 incidents (1 slight, 1 serious), whilst another 2 involved motorcyclists (1 slight, 1 serious). Given the clusters of accidents at either end of Campbeltown Road, a more detailed accident analysis is recommended as part of the transport assessment for this site.
- It should be noted that a number of comments have been made on the Wirral Liveable Streets website adjacent to the development site. One comment has been made on Campbeltown Road:
  - "*Drivers use it as a short cut to skip the A41 - often at speed. Filtering the road to stop through traffic would solve the problem, or create safe space to ride*."
- Additionally, 4 comments have been made at the A41 / B5149 northern roundabout. Comments mostly relate to the lack of adequate cycle / pedestrian infrastructure at the junction, in particular:
  - Regarding the B5149 approach: "*No cycle path from green lane to join route on the other side of the A41, many people use path through wicks car park, but junction is unsighted from A41*"
  - Regarding Mollington Link: "*Crossing from the road from Wickes to the Rock Retail park area as a pedestrian is dangerous. There is no formal crossing, cars exit the roundabout at speed, and there is no eyeline available for pedestrians (high hedges) to see if a car is on the roundabout… This area seems to have been designed solely for cars, despite a large local population within walking distance.*"

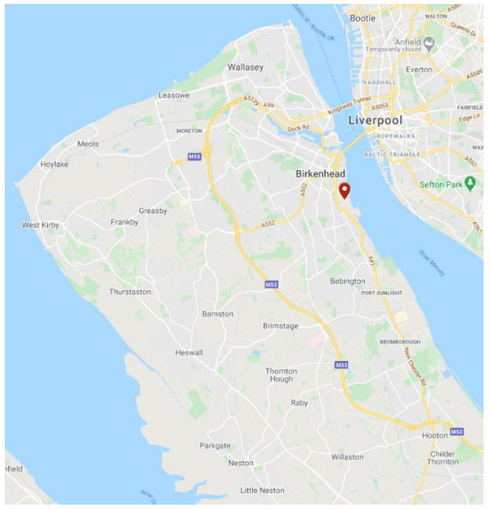
Vehicular access

- Whilst numerous access junctions exist along Campbeltown Road, there is no specific access within the red line boundary for the proposed development site.

Walking / Cycling connectivity

- A cluster of comments have been made on the Wirral Liveable Streets website at the A41 / B5136 roundabout to the south of the proposed development site. In particular, comments focus on the issue of inadequate cycling/walking facilities. Comments note the lack of visibility for pedestrians crossing, no dropped kerbs and speed of traffic approaching the junction.
- Dropped kerbs are provided at the access junctions along Campbeltown Road. There is also an adequate amount of lighting columns.
- With reference to the Wirral Cycle Map, Campbeltown Road is recognised as an 'on-road signed cycle route', and forms part of the Wirral Circular Trail. An off-road cycle track is found to the north, linking Campbeltown Road with Priory Street.

Location



Source: Google Maps

5-Year Accident Analysis

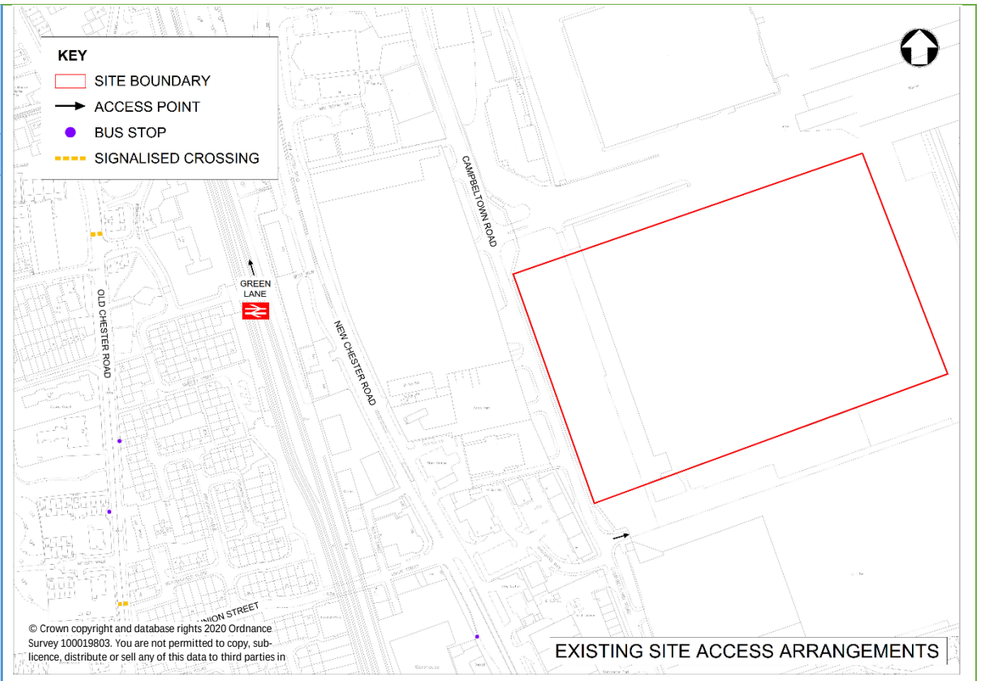
Source: CrashMap

Site Plan

- Numerous signalised pedestrian crossings are found along the A41, complete with push-button facilities, tactile paving, guardrail and pedestrian islands. Signalised crossings are provided on the northern and southern arms of the A41 northern roundabout. Tactile paving and dropped kerbs are provided at the remaining arms.
- There is a lack of crossing facilities at the southern A41 roundabout.

Public Transport connectivity

- The closest bus stop to the site is located 300m to the northwest along New Chester Road. It is accessed by a 4-minute walk via Turbine Road. An overview of the daytime services and frequencies at stop is provided below:
  - 1 gold: Chester to Liverpool - 2 services per hour
  - X1 gold: Chester to Liverpool - 2 services per hour
  - 38B: Bromborough to West Kirby – 1 service in the AM peak
  - 811: Leasowe to Broughton Shopping Park – 3 services from 04:55 – 07:55
- Green Lane railway station is located 850m to the northwest of the site. It is accessed via an 11-minute walk along Campbeltown Road, and utilising the pedestrian crossing facilities at the A41 / B5149 roundabout. An overview of the services at the station is provided below:
  - Liverpool Central: 4 services per hour
  - Chester: 2 services per hour
  - Ellesmere Port: 2 services per hour



Source: Mott MacDonald

RAG Status of Existing Transport Scenario		Commentary	*Site would fit well within the existing Lairdside Technology Park.*

PROPOSED SCENARIO

Proposed development and network impact

- The site has been allocated for B2 general Industry or B8 storage/distribution use.
- Current assumptions are to develop approximately 40% of the 5.52ha net developable area with B2/B8 uses. This equates to 2.21ha (22,080sqm) of building GFA.
- Applying this to trip rate factors, generated within the TRICS database, indicates the likely AM and PM peak trip generation shown in the adjacent table.
- As part of the transport assessment, the impact of vehicular trips generated by the site on the local road network, in particular the local access junctions along Campbeltown Road, should be considered in depth.

Trip Generation Analysis

	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	87	20	107
PM peak (17:00-18:00)	0.088	0.340	0.428	19	75	95

Comments and assumptions

- Parking and cycle parking provision will need to conform with the guidance provided within the Local Plan.
- A Transport Assessment will be required to gain an understanding of the proposed development on the existing highway network.
- Speed surveys are required along Campbeltown Road to determine visibility splays at the site access junction and also whether traffic calming measures are required.
- The proposed development site would sit well within the Lairdside Technology Park.

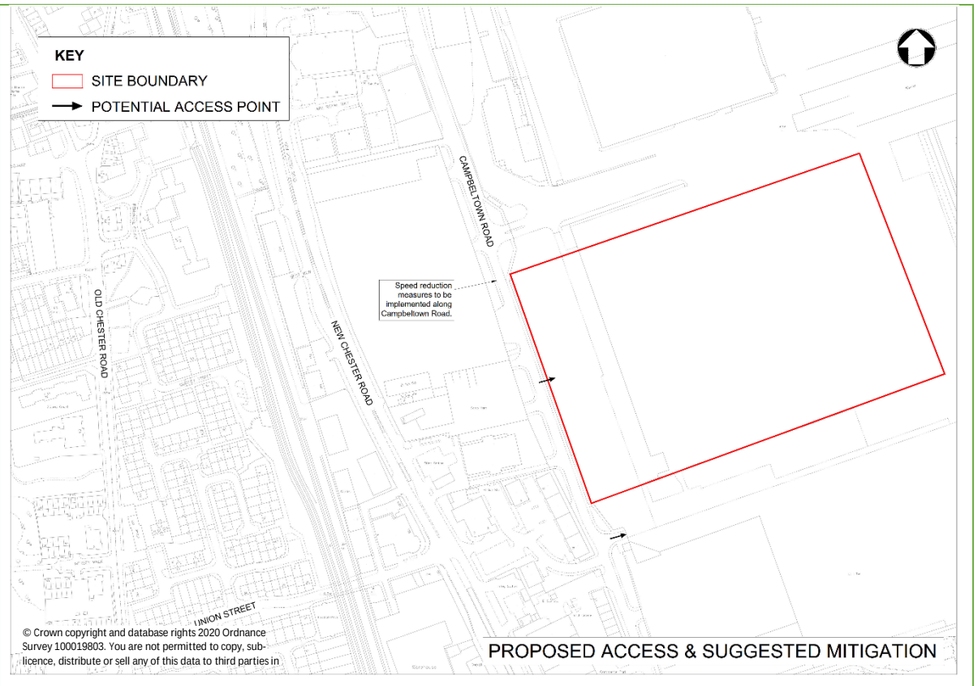
Conclusions and suggested mitigation

Suggested Site Access Arrangement Plan

- Potential access points have been identified at two locations. One at the existing junction to the south of the site, which currently facilitates access to the car park at the eastern perimeter of the site. The use of this junction would require landowner approval. The other option is a new junction on Campbeltown Road, adjacent the Lairdside Laser Engineering Centre access. However, the junction should be offset from the existing access to the Engineering Centre.
- Speed reduction measures along Campbeltown Road.
- Ensure visibility splays at the site access junction conform with DMRB standards.
- Upgraded footway and introduction of dropped crossings and tactile paving at the access junctions along Campbeltown Road to support access to bus stops on A41 via Turbine Road.

Cost summary for EMP SA2.1:

- New site access junction: £50,000 - £100,000
- Speed reduction measures: £25,000 - £50,000
- Upgrade of pedestrian road crossing measures along Campbeltown Road: £25,000 - £50,000



Source: Mott MacDonald

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus
North: • Utility apparatus doesn't appear to be within study area. East: • Utility apparatus doesn't appear to be within study area. South: • Utility apparatus doesn't appear to be within study area. West: • Wastewater – Highway Surface Sewer (525mm/600mm/675mm Concrete) within Campbeltown Road. • Potable Water, Electricity and Gas apparatus don't appear to be within study area.
Potentially Affected Utilities
None. However, to understand this better, details of the proposed land use, and existing capacity of the network are required.
Conclusions and suggested mitigation
This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of these plots. However, due to the standard nature of their presence, these are not commented upon further, as they do not impact upon the viability of developing these areas. Based on the information obtained, no diversions appear to be required.

RAG Status of Existing Utility Apparatus		Commentary	*Utilities don't appear to be affected.*

Site Visit Photos

Source: Mott MacDonald

Prepared by: C Osborne	*Checked by: John Ingram*	*Approved by: Duncan Crockett*	*Date: 27/01/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

Site ref: EMP- RA8.1 Former Gas Holders, Dock Road, Wallasey

SITE

Area	*6.27 Ha*
Location	Dock Road, Wallasey, Wirral
Proposed land use	B2 General Industry; B8 Storage or Distribution

TRANSPORT

EXISTING SCENARIO

Existing highway network

- The site is located adjacent to West Float to the north-west of Birkenhead town centre. It is bounded to the south by the A5139 Dock Road, to the north by the A59, to the east by Old Gorsey Lane and to the south-west by Limekiln Lane.
- There is a 30mph speed limit on Dock Road with one lane in both the northbound and southbound directions. However, the nature of Dock Road would suggest that speeding may be an issue – this will need to be assessed when developing site access proposals.
- There is a lack of local amenities as the site is located in an area with primarily industrial uses. The closest local amenities such as restaurants, local shops and pubs are located approximately 700m to the north of the site on Poulton Road, accessible on foot via Sherlock Lane across the existing A59 footbridge.
- There is adequate street lighting on Dock Road adjacent to the existing site entrance and along the length of the road in both directions.
- The Gorsey Lane grade separated roundabout is located to the north of Dock Road. From this junction, direct access is provided to the Kingsway Tunnel, Liverpool and the wider regional road network. The junction also provides an important highway connection to the north to the towns of Liscard, Wallasey and New Brighton. However, the junction is lacking slip roads on the western side, and consequently access to the M53 needs to be via Dock Road.
- 5-year Road Traffic Collision (RTC) analysis indicates two slight incidents on Dock Road in the area between the junction with Duke Street to the east and with the roundabout to the west. Neither of these incidents have occurred within close proximity to the site boundary. In the wider vicinity there have been several RTCs on Duke Street junction, of which 2 have been serious. There have also been 2 incidents on the roundabout, of which 1 was serious.
- Several comments relating to the surrounding area have been made on the Wirral Liveable Streets website. A comment relating to a lack of adequate safe cycling facilities has been made for Limekiln Lane, in addition to comments on Dock Road roundabout relating to difficulty crossing, poor walking and cycling facilities and poor behaviour of road users.

Vehicular access

- The main vehicular access point to the site is via Dock Road towards the eastern end of the red line boundary.
- The site can also be accessed via Limekiln Lane. This access is currently blocked for vehicles with concrete barriers; however, pedestrians are able to access the site through the barriers despite the site being under private ownership. There is evidence of fly tipping within the site via this access.
- There is a further gated access at the northeast of the site off Old Gorsey Lane.

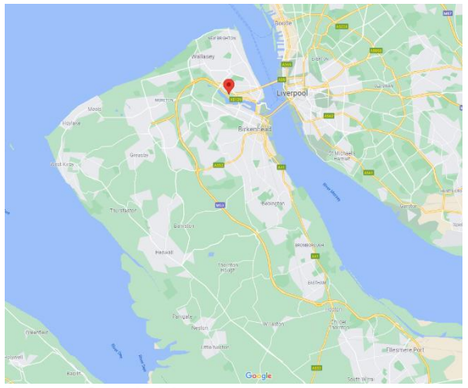
Walking / Cycling connectivity

- The site is located 1.4 miles east of national cycle route 56. This can be accessed via a 15-minute walk or 5-minute cycle from the site via Dock Road and Birkenhead Road. There are no designated cycle lanes on this route until Birkenhead Road. The quickest way to access this route by foot or bike would be via the eastern entrance on Old Gorsey Lane.
- Cycle lanes on Duke Street allow connections to and from Birkenhead Park train station, which is located 1.5km southeast from the site. These cycle lanes end on Dock Road.
- For access on foot there is an entrance to the site via Old Gorsey Lane which has pedestrian access to the A59. There are footpaths around this junction which make it safe for walking, however there are no designated cycle lanes.
- For walking and cycling access to and from Poulton, there is a footbridge over the A59 via Sherlock Lane located 500m from the site entrance on Limekiln Lane.

Public Transport connectivity

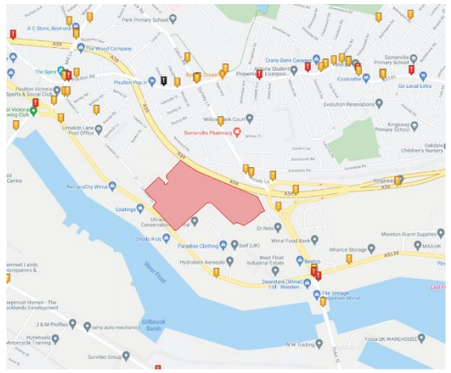
- The bus stop closest to the site entrance on Dock Road is Poulton Hall Road bus stop, located on Poulton Road 700m away. This can be accessed via Limekiln Lane by a 9-minute walk. This service can also be accessed using Mostyn Street bus stop which is located over Sherlock Lane footbridge north of the site at equal distance.
- Another bus stop is located on Duke Street to the east, 750m away from the site entrance. This bus stop is served by the 410 bus service with 6 buses per hour (every 10 minutes). . Below is an overview of services to the bus stop on Poulton Road and Duke street

Location



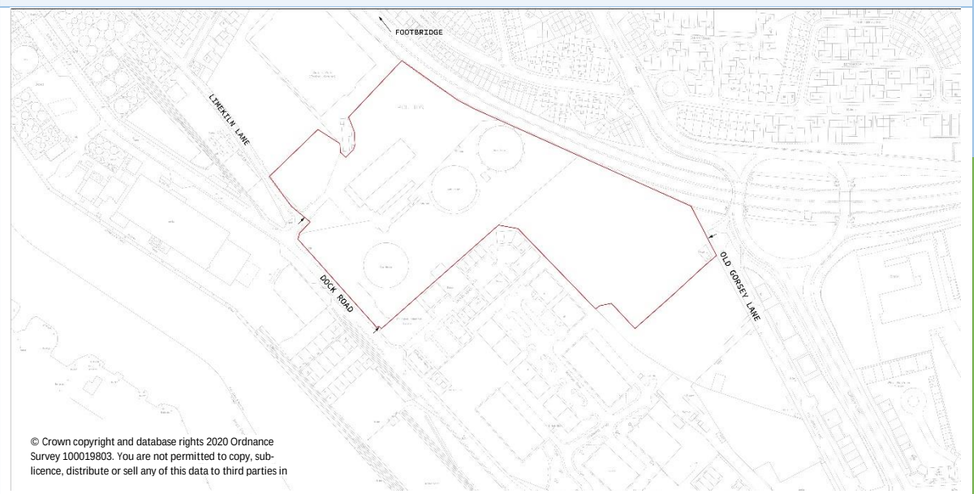
Source: Google Maps

5-Year Accident Analysis



Source: CrashMap

Site Plan



Source: Mott MacDonald

Poulton Road

- 107: Liscard – Wallasey Circular – every 1.5 hours from 9:16 – 17:06

Duke Street

- 410: New Brighton to Clatterbridge Hospital – 5 every hour from 6:35 – 23:57

Birkenhead North rail station is located 1 mile south-west from the site and can be accessed on foot in 20 minutes or by vehicle in 5 minutes. This station is the closest to the site. Accessed via Dock Road and Wallasey Bridge Road, 1.5km away. An overview of rail services are provided below:

- West Kirby: 3 services per hour
- New Brighton: 3 services per hour
- Liverpool Central: 6 services an hour

Birkenhead Park is also in close proximity to the site, located 1 mile south from the site which can be accessed on foot or by vehicle. This station runs the same three lines as the previous station.

RAG Status of Existing Transport Scenario		Commentary	*Site would fit well within the existing surrounding industrial uses. However, access by public transport is limited.*

PROPOSED SCENARIO

Proposed development and network impact

- The site has been allocated for B2 general Industry or B8 storage/distribution use.
- As part of the transport assessment, the impact of vehicular trips generated by the site on the local road network, in particular the local access junctions along Dock Road should be considered in depth.
- The adjacent table gives a high level estimate for the possible trip generation of the site based upon a generic industrial land-use. These estimates will need to be developed in detail as part of the transport assessment once details are known of the proposed development.

Trip Generation Analysis

Trip rates per 100 sqm GFA

	Trip Rates			Trip Generation *(rounded)*		
Time Period	Arr	Dep	2-way	Arr	Dep	2-way
AM peak (08:00-09:00)	0.396	0.089	0.485	99	22	122
PM peak (17:00-18:00)	0.088	0.340	0.428	22	85	107

Comments and assumptions

- Parking and cycle parking provision will need to conform with the guidance provided within the new Local Plan.
- A Transport Assessment will be required to gain an understanding of the proposed development on the existing highway network.
- Speed surveys are required along Dock Road to determine visibility splays at the site access junction and also whether traffic calming / traffic management measures are required. Due to the industrial nature of surrounding uses, DMRB should be used to design the access and visibility splays
- The proposed development site would sit well within the surrounding uses of the site.

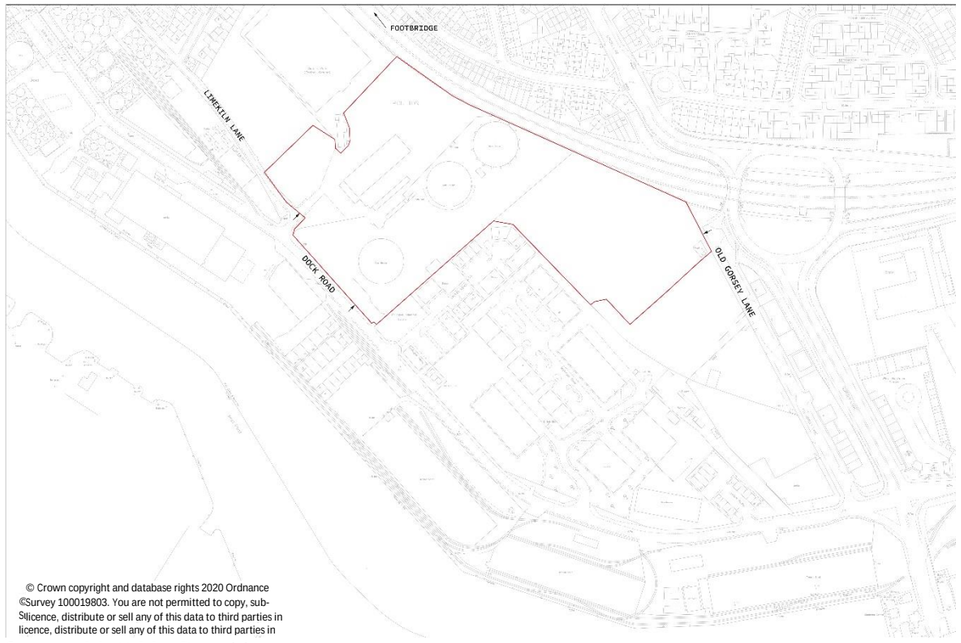
Conclusions and suggested mitigation

- Potential access points to the site have been identified at three locations.
    1. Dock Road: a new access could be created to the west of the current access point. This would allow for a wider access point which is not bounded to the east by the site boundary. The existing access is unlikely to be able to be utilised due to position in proximity to third party land and the ability to achieve required visibility splays.
    2. Limekiln Lane: the existing access to the site on Limekiln Lane could be formalised into a new vehicular or pedestrian access point to the site.
    3. Old Gorsey Lane: a new access point could be created at the top of Old Gorsey Lane to the east of the site. There is an existing road in place which could be utilised and formalised into a new access point to the site.
- Depending upon the proposed use of the site, a turning pocket may be required on Dock Road;
- Access by foot and cycle should be considered in detail;
- If Old Gorsey Lane is proposed to be used as an access route, measures will need to developed to manage on-street parking by HGV's and cars in the vicinity of the site access.

Cost summary for EMP RA8.1:

- New priority site access junction, Dock Road: £200,000 - £300,000
- Old Gorsey Lane traffic management measures: £10,000 - £20,000
- Speed reduction measures Dock Road: £25,000 - £50,000

Suggested Site Access Arrangement Plan



Source: Mott MacDonald

Prepared by: D. Levers/L. Jones	*Checked by: J McManus*	*Approved by: D Crockett*	*Date: 22/09/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review

UTILITIES

EXISTING SCENARIO

Existing Utility Apparatus

North:

- Potable Water – 3” uPVC Distribution Main located in southern footway of Old Gorsey Lane, adjacent to the site boundary.
- Electricity – 3 no. 11kV and 1 no. LV at northern site boundary, traversing the site in a north to south direction.
- Gas – 1 no. 24” and 1 no. 18” ST IP both within northern site boundary.
- Wastewater apparatus does not appear to be within study area.

East:

- Electricity – 1 no. LV within southern footway of Old Gorsley Lane, adjacent to site boundary. 1 no. LV at eastern site boundary with several LV supplies to adjacent buildings at Cashel Road.
- Gas – 1 no. 24” ST IP and 1 no. 6” ST IP both within eastern site boundary
- Potable Water and Wastewater apparatus don’t appear to be within study area.

South:

- Potable Water – 9”/12” CI Distribution Main located in northern footway of Dock Road adjacent to the southern site boundary. 6” CI Distribution Main intersects the site at the south west corner.
- Wastewater – 1 no. 1067 x 1375 mm VC combined sewer located within southern footway of Dock Road adjacent to the southern site boundary. 1 no. 375mm VC combined sewer located at southern site boundary.
- Electricity – 2 no. 11kV and 1 no. LV both within northern footway of Dock Road adjacent to the southern site boundary. 3 no. 11kV and 2 no. LV at south east corner of site, traversing the site in a south to north direction. 1 no. LV at south east corner intersecting the site.
- Gas – 20/30” SI LP within dock road adjacent to southern site boundary. 1 no. 21” DI MP, 1 no. 15” SI MP and 1 no 10” CI LP all within southern site boundary.

West:

- Utility apparatus doesn’t appear to be within study area.

Potentially Affected Utilities

North:

- Electricity – 11kV and LV cables within site boundary. There is an electricity substation located within the site boundary, near to the centre.
- Gas – 1 no. 24” ST Intermediate Pressure and 1 no. 18” ST Intermediate Pressure both within northern site boundary.
- Potable Water and Wastewater apparatus don’t appear to be affected.

East:

- Gas – 1 no. 24” ST Intermediate Pressure and 1 no. 6” ST Intermediate Pressure within eastern site boundary.
- Potable Water, Wastewater and Electricity apparatus don’t appear to be affected.

South:

- Gas - 15” SI MP and 21” DI Medium Pressure within southern boundary.
- Potable Water – 6” CI Distribution Main at south west corner of site.
- Electricity- 11kV and LV cables within site boundary. There is an electricity substation located within the site boundary, near to the centre.
- Wastewater apparatus doesn’t appear to be affected.

West:

- Utility apparatus don’t appear to be affected.

Conclusions and suggested mitigation

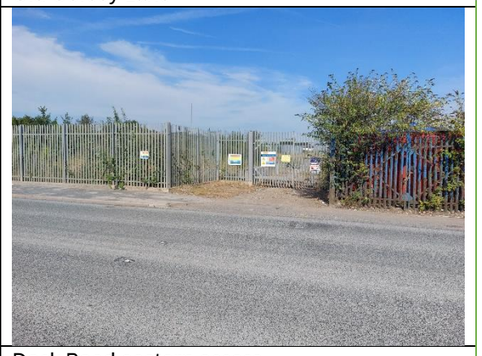
This review is based upon the confines of the proposed development. It is accepted that there is existing utility apparatus around the periphery of this plot. The major impacts upon this disused gasometer site are the 24” and 18” ST Intermediate Pressure mains to the northern and eastern boundary. It is recommended that the red line boundary is amended to reduce impact on such apparatus. If diversion was required, it could potentially be very costly (in the millions). There is also a surface feature present at the termination point of the 18” ST IP, this may be related to the decommissioned IP gas main, but there is not enough substantial information on the Cadent plans for its purpose to be confirmed.
Consideration must also be given to the 15” SI Medium Pressure and 21” DI Medium Pressure mains.

Site Visit Photos


Sherlock Lane footbridge over A59


Old Gorsey Lane


Old Gorsey Lane gated access


Dock Road eastern access


Dock Road western access, Limekiln Lane


Dock Road, site frontage

Source: Mott MacDonald

	There is also an electricity substation located within the site, this will need to be relocated to allow for the proposed development, which could cost circa £250k assuming it's a secondary sub station.						
	RAG Status of Existing Utility Apparatus		Commentary	*Requires amendment of red line boundary and relocation of electricity substation.*			
	Prepared by: C Osborne	*Checked by: J Ingram*	*Approved by: D Crockett*	*Date: 29/09/2021*	Project Details	Wirral Local Plan Support: Additional Sites Review	