Highways Technical Note – Proposed Parking Provision

Construction of Two Industrial Warehouse Units With Ancillary Office Accommodation With Parking and Landscaping at Former North Bierley Waste Water Treatment Works, Oakenshaw, BD12 7ET

Planning Application Reference (Kirklees Council) – *2021/61/91932/E*

17th August 2021

Introduction

This Highways Technical Note has been prepared by Andrew Moseley Associates (AMA) to provide details on the proposed levels of parking provision for two Industrial Warehouse Units at the former North Bierley Waste Water Treatment Works, Oakenshaw for a reserved matters planning application.

The Local Planning Authority (LPA) and Local Highway Authority (LHA) are Kirklees Council (KC)

Kirklees Council Parking Standards

Following the superseedance of the KC Unitary Development plan (UDP), the new KC Local Plan has not set local parking standards for residential and non-residential development.

Therefore it is the applicant's responsibility to provide a justification on the proposed number of proposed parking spaces for the proposed B1c, B2 and B8 uses.

Proposed Development

The proposed development layout is provided in **Appendix A**.

The proposed units are to provide flexible B1(c), B2 and B8 use to commercial flexibility of uses in the future. The proposed Gross Floor Area (GFA) of each unit is provided below.

- Unit 1 – 6,023sqm; and
- Unit 2 – 4,046sqm.

Proposed Parking Provision

The units propose the following car parking on site:

- Unit 1 – 60 spaces; and
- Unit 2 – 40 spaces

Parking Provision Justification – Parking Accumulation

Given KC Highways do not have prescribed standards for non-residential parking, AMA have prepared a suitable parking accumulation survey for each unit based upon the GFA of a B1(c), B2 and B8 uses.

TRICS has been used for the respective land use types to determine an appropriate level of parking provision is provided. In highways terms B1(c) is light industrial and generates comparable trip rates to B2 uses and therefore is also considered as General Industrial. A 10% buffer is also considered appropriate to accommodate any spikes in demand.

The full TRICS output is provided in **Appendix B** and the peak parking accumulation for each unit is detailed in **Table 1**.

UNIT	B1(C) / B2 PEAK ACCUMULATION	B1(C) / B2 PEAK + 10% BUFFER	B8 PEAK ACCUMULATION	B8 PEAK + 10% BUFFER
Unit 1 (6,023sqm)	50	55	48	53
Unit 2 (4,046sqm)	34	38	33	37

Table 1 Parking Accumulation

Therefore as detailed in **Table 1**, the peak parking accumulation with buffer can be accommodated by the development proposals without providing excessive parking for the required demand.

On this basis we would consider the proposed level of parking provision to be appropriate and this should be acceptable to KC Highways.

Conclusion

This Highways Technical Note provides clarifications upon the proposed parking provision of this reserved matters application for the LHAs consideration.

In conclusion, the information provided within this Note demonstrates that the proposed parking provision is acceptable in highways terms.

Appended Documents

Appendix A – Site Layout

Appendix B – TRICS Parking Accumulation Calculations

Appendix A – Site Layout

FENCING:

2.4m high paladin fence to site perimiter

LANDSCAPING:

Refer to Landscape Architect's details for further information

All site dimensions shall be verified by the contractor on site prior to work commencing

Do not scale from this drawing
Only work to written dimensions

This drawing is the property of Ellis Healey Architecture and copyright is reserved by them. The drawing is not to be copied or disclosed by or to any unauthorised persons without the prior written consent of Ellis Healey Architecture.

NOTES

UNIT	UNIT SIZE (GIA)	UNIT HEIGHT (U/S HAUNCH)	PARKING FACILITIES	SITE AREA
1	5575 sq.m (60,000 sq.ft) unit plus 448 sq.m (4,820 sq.ft) of first floor office accommodation	12m	60 no. parking spaces including 5 accessible spaces and 2 EVC spaces 12 no. cycle spaces	15,480 sq.m
2	3716 sq.m (40,000 sq.ft) unit plus 330 sq.m (3,560 sq.ft) of first floor office accommodation	12m	40 no. parking spaces including 4 accessible spaces and 2 EVC spaces 8 no. cycle spaces	10,820 sq.m

AREA OF APPLICATION SITE:
34,190 sqm (3.419 ha)

Rev A	Metric units added	14-05-2021	NG
Designation	Details of Revision	Date	Initials/Sign

ellis healey
architecture

PLANNING

PROJECT: PROPOSED INDUSTRIAL DEVELOPMENT AT FORMER BIERLEY TREATMENT WORKS, CLECKHEATON

TITLE: PROPOSED G.A. SITE PLAN

DRAWING NO: **2115 PL 103 (A)**

BY/CHECKED: NG / AH DATE: APRIL 2021

SCALE @A1: 1:500

Tower Works, Globe Road, Leeds, LS11 5QG
Tel: 0113 3453090 E-mail: info@ellishealey.com

Appendix B – TRICS Parking Accumulation Calculations

TRICS 7.8.2

Trip Rate Pa Gross floor area

B2 - General Industrial Use Parking Accumulation at 4,046sqm

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
Calculation Factor: 100 sqm
Count Type: TOTAL VEHICLES

		ARRIVALS			DEPARTURES			TOTALS					
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip				
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate		Arrivals	Departures	Movements	Parking Accumulation
00:00-00:30														
00:30-01:00														
01:00-01:30														
01:30-02:00														
02:00-02:30														
02:30-03:00														
03:00-03:30														
03:30-04:00														
04:00-04:30														
04:30-05:00														
05:00-05:30	2	1998	0	2	1998	0	2	1998	0		0	0	0	
05:30-06:00	2	1998	0.075	2	1998	0	2	1998	0.075		3	0	3	3
06:00-06:30	2	1998	0.025	2	1998	0.075	2	1998	0.1		1	3	-2	1
06:30-07:00	3	2115	0.173	3	2115	0.032	3	2115	0.205		7	1	6	7
07:00-07:30	15	3270	0.124	15	3270	0.022	15	3270	0.146		5	1	4	11
07:30-08:00	15	3270	0.133	15	3270	0.031	15	3270	0.164		5	1	4	15
08:00-08:30	16	3184	0.181	16	3184	0.037	16	3184	0.218		7	1	6	21
08:30-09:00	16	3184	0.186	16	3184	0.045	16	3184	0.231		8	2	6	27
09:00-09:30	16	3184	0.124	16	3184	0.057	16	3184	0.181		5	2	3	29
09:30-10:00	16	3184	0.137	16	3184	0.102	16	3184	0.239		6	4	1	31
10:00-10:30	16	3184	0.122	16	3184	0.065	16	3184	0.187		5	3	2	33
10:30-11:00	16	3184	0.114	16	3184	0.084	16	3184	0.198		5	3	1	34
11:00-11:30	16	3184	0.071	16	3184	0.077	16	3184	0.148		3	3	0	34
11:30-12:00	16	3184	0.061	16	3184	0.067	16	3184	0.128		2	3	0	34
12:00-12:30	16	3184	0.106	16	3184	0.102	16	3184	0.208		4	4	0	**34**
12:30-13:00	16	3184	0.098	16	3184	0.12	16	3184	0.218		4	5	-1	33
13:00-13:30	16	3184	0.116	16	3184	0.163	16	3184	0.279		5	7	-2	31
13:30-14:00	16	3184	0.094	16	3184	0.104	16	3184	0.198		4	4	0	31
14:00-14:30	16	3184	0.088	16	3184	0.073	16	3184	0.161		4	3	1	31
14:30-15:00	16	3184	0.079	16	3184	0.092	16	3184	0.171		3	4	-1	31
15:00-15:30	16	3184	0.063	16	3184	0.079	16	3184	0.142		3	3	-1	30
15:30-16:00	16	3184	0.049	16	3184	0.11	16	3184	0.159		2	4	-2	28
16:00-16:30	16	3184	0.059	16	3184	0.114	16	3184	0.173		2	5	-2	25
16:30-17:00	16	3184	0.033	16	3184	0.155	16	3184	0.188		1	6	-5	20
17:00-17:30	16	3184	0.033	16	3184	0.194	16	3184	0.227		1	8	-7	14
17:30-18:00	16	3184	0.043	16	3184	0.108	16	3184	0.151		2	4	-3	11
18:00-18:30	16	3184	0.02	16	3184	0.139	16	3184	0.159		1	6	-5	6
18:30-19:00	15	3240	0.023	15	3240	0.029	15	3240	0.052		1	1	0	6
19:00-19:30	3	3998	0.05	3	3998	0.025	3	3998	0.075		2	1	1	7
19:30-20:00	3	3998	0.025	3	3998	0.05	3	3998	0.075		1	2	-1	6
20:00-20:30	3	3998	0.017	3	3998	0.108	3	3998	0.125		1	4	-4	3
20:30-21:00	3	3998	0.017	3	3998	0.042	3	3998	0.059		1	2	-1	2
21:00-21:30	1	8000	0	1	8000	0	1	8000	0		0	0	0	2
21:30-22:00	1	8000	0	1	8000	0	1	8000	0		0	0	0	2
22:00-22:30														
22:30-23:00														
23:00-23:30														
23:30-24:00														
Daily Trip Rates:			2.539			2.501			5.04					

Gross Floor Area SQM	**4046**
TRICS Factor	**40.46**
Starting Parking	**0**

TRICS 7.8.2

Trip Rate F Gross floor area

B2 - General Industrial Use Parking Accumulation at 6,023sqm

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
Calculation Factor: 100 sqm
Count Type: TOTAL VEHICLES

	ARRIVALS			DEPARTURES			TOTALS						
Time Rang	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate		Arrivals	Departures	Movements	Parking Accumulation
00:00-00:30														
00:30-01:00														
01:00-01:30														
01:30-02:00														
02:00-02:30														
02:30-03:00														
03:00-03:30														
03:30-04:00														
04:00-04:30														
04:30-05:00														
05:00-05:30	2	1998	0	2	1998	0	2	1998	0		0	0	0	
05:30-06:00	2	1998	0.075	2	1998	0	2	1998	0.075		5	0	5	5
06:00-06:30	2	1998	0.025	2	1998	0.075	2	1998	0.1		2	5	-3	2
06:30-07:00	3	2115	0.173	3	2115	0.032	3	2115	0.205		10	2	8	10
07:00-07:30	15	3270	0.124	15	3270	0.022	15	3270	0.146		7	1	6	16
07:30-08:00	15	3270	0.133	15	3270	0.031	15	3270	0.164		8	2	6	22
08:00-08:30	16	3184	0.181	16	3184	0.037	16	3184	0.218		11	2	9	31
08:30-09:00	16	3184	0.186	16	3184	0.045	16	3184	0.231		11	3	8	39
09:00-09:30	16	3184	0.124	16	3184	0.057	16	3184	0.181		7	3	4	43
09:30-10:00	16	3184	0.137	16	3184	0.102	16	3184	0.239		8	6	2	46
10:00-10:30	16	3184	0.122	16	3184	0.065	16	3184	0.187		7	4	3	49
10:30-11:00	16	3184	0.114	16	3184	0.084	16	3184	0.198		7	5	2	51
11:00-11:30	16	3184	0.071	16	3184	0.077	16	3184	0.148		4	5	0	50
11:30-12:00	16	3184	0.061	16	3184	0.067	16	3184	0.128		4	4	0	50
12:00-12:30	16	3184	0.106	16	3184	0.102	16	3184	0.208		6	6	0	**50**
12:30-13:00	16	3184	0.098	16	3184	0.12	16	3184	0.218		6	7	-1	49
13:00-13:30	16	3184	0.116	16	3184	0.163	16	3184	0.279		7	10	-3	46
13:30-14:00	16	3184	0.094	16	3184	0.104	16	3184	0.198		6	6	-1	46
14:00-14:30	16	3184	0.088	16	3184	0.073	16	3184	0.161		5	4	1	46
14:30-15:00	16	3184	0.079	16	3184	0.092	16	3184	0.171		5	6	-1	46
15:00-15:30	16	3184	0.063	16	3184	0.079	16	3184	0.142		4	5	-1	45
15:30-16:00	16	3184	0.049	16	3184	0.11	16	3184	0.159		3	7	-4	41
16:00-16:30	16	3184	0.059	16	3184	0.114	16	3184	0.173		4	7	-3	38
16:30-17:00	16	3184	0.033	16	3184	0.155	16	3184	0.188		2	9	-7	30
17:00-17:30	16	3184	0.033	16	3184	0.194	16	3184	0.227		2	12	-10	21
17:30-18:00	16	3184	0.043	16	3184	0.108	16	3184	0.151		3	7	-4	17
18:00-18:30	16	3184	0.02	16	3184	0.139	16	3184	0.159		1	8	-7	10
18:30-19:00	15	3240	0.023	15	3240	0.029	15	3240	0.052		1	2	0	9
19:00-19:30	3	3998	0.05	3	3998	0.025	3	3998	0.075		3	2	2	11
19:30-20:00	3	3998	0.025	3	3998	0.05	3	3998	0.075		2	3	-2	9
20:00-20:30	3	3998	0.017	3	3998	0.108	3	3998	0.125		1	7	-5	4
20:30-21:00	3	3998	0.017	3	3998	0.042	3	3998	0.059		1	3	-2	2
21:00-21:30	1	8000	0	1	8000	0	1	8000	0		0	0	0	2
21:30-22:00	1	8000	0	1	8000	0	1	8000	0		0	0	0	2
22:00-22:30														
22:30-23:00														
23:00-23:30														
23:30-24:00														
Daily Trip Rates:			2.539			2.501			5.04					

Gross Floor Area SQM	**6023**
TRICS Factor	**60.23**
Starting Parking	**0**

TRICS 7.8.2

Trip Rate F Gross floor area

B8 - Storage and Distribution Use Parking Accumulation at 4,046sqm

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
Calculation Factor: 100 sqm
Count Type: TOTAL VEHICLES

	ARRIVALS			DEPARTURES			TOTALS							
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip					
Time Rang	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate		Arrivals	Departures	Movements	Parking Accumulation
00:00-00:30														
00:30-01:00														
01:00-01:30														
01:30-02:00														
02:00-02:30														
02:30-03:00														
03:00-03:30														
03:30-04:00														
04:00-04:30														
04:30-05:00														
05:00-05:30	1	3500	0.057	1	3500	0	1	3500	0.057		2	0	2	
05:30-06:00	1	3500	0.171	1	3500	0.029	1	3500	0.2		7	1	6	8
06:00-06:30	2	4168	0.096	2	4168	0.108	2	4168	0.204		4	4	0	8
06:30-07:00	2	4168	0.144	2	4168	0.06	2	4168	0.204		6	2	3	11
07:00-07:30	7	3968	0.09	7	3968	0.079	7	3968	0.169		4	3	0	11
07:30-08:00	7	3968	0.13	7	3968	0.054	7	3968	0.184		5	2	3	14
08:00-08:30	7	3968	0.191	7	3968	0.079	7	3968	0.27		8	3	5	19
08:30-09:00	7	3968	0.245	7	3968	0.097	7	3968	0.342		10	4	6	25
09:00-09:30	7	3968	0.194	7	3968	0.061	7	3968	0.255		8	2	5	30
09:30-10:00	7	3968	0.122	7	3968	0.068	7	3968	0.19		5	3	2	**33**
10:00-10:30	7	3968	0.104	7	3968	0.104	7	3968	0.208		4	4	0	**33**
10:30-11:00	7	3968	0.097	7	3968	0.108	7	3968	0.205		4	4	0	32
11:00-11:30	7	3968	0.104	7	3968	0.148	7	3968	0.252		4	6	-2	30
11:30-12:00	7	3968	0.097	7	3968	0.144	7	3968	0.241		4	6	-2	28
12:00-12:30	7	3968	0.086	7	3968	0.108	7	3968	0.194		3	4	-1	28
12:30-13:00	7	3968	0.09	7	3968	0.101	7	3968	0.191		4	4	0	27
13:00-13:30	7	3968	0.086	7	3968	0.112	7	3968	0.198		3	5	-1	26
13:30-14:00	7	3968	0.119	7	3968	0.09	7	3968	0.209		5	4	1	27
14:00-14:30	7	3968	0.068	7	3968	0.115	7	3968	0.183		3	5	-2	25
14:30-15:00	7	3968	0.101	7	3968	0.086	7	3968	0.187		4	3	1	26
15:00-15:30	7	3968	0.09	7	3968	0.101	7	3968	0.191		4	4	0	25
15:30-16:00	7	3968	0.083	7	3968	0.115	7	3968	0.198		3	5	-1	24
16:00-16:30	7	3968	0.119	7	3968	0.101	7	3968	0.22		5	4	1	25
16:30-17:00	7	3968	0.09	7	3968	0.115	7	3968	0.205		4	5	-1	24
17:00-17:30	7	3968	0.079	7	3968	0.212	7	3968	0.291		3	9	-5	19
17:30-18:00	7	3968	0.043	7	3968	0.133	7	3968	0.176		2	5	-4	15
18:00-18:30	6	4379	0.042	6	4379	0.141	6	4379	0.183		2	6	-4	11
18:30-19:00	6	4379	0.046	6	4379	0.076	6	4379	0.122		2	3	-1	10
19:00-19:30	1	3500	0	1	3500	0.029	1	3500	0.029		0	1	-1	8
19:30-20:00	1	3500	0	1	3500	0	1	3500	0		0	0	0	8
20:00-20:30	1	3500	0	1	3500	0	1	3500	0		0	0	0	8
20:30-21:00	1	3500	0	1	3500	0	1	3500	0		0	0	0	8
21:00-21:30											0	0	0	8
21:30-22:00											0	0	0	8
22:00-22:30														
22:30-23:00														
23:00-23:30														
23:30-24:00														
Daily Trip Rates:			2.984			2.774			5.758					

Gross Floor Area SQM	**4046**
TRICS Factor	**40.46**
Starting Parking	**0**

TRICS 7.8.2

Trip Rate F Gross floor area

B8 - Storage and Distribution Use Parking Accumulation at 6,023sqm

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
Calculation Factor: 100 sqm
Count Type: TOTAL VEHICLES

	ARRIVALS			DEPARTURES			TOTALS							
Time Rang	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate		Arrivals	Departures	Movements	Parking Accumulation
00:00-00:30														
00:30-01:00														
01:00-01:30														
01:30-02:00														
02:00-02:30														
02:30-03:00														
03:00-03:30														
03:30-04:00														
04:00-04:30														
04:30-05:00														
05:00-05:30	1	3500	0.057	1	3500	0	1	3500	0.057		3	0	3	
05:30-06:00	1	3500	0.171	1	3500	0.029	1	3500	0.2		10	2	9	12
06:00-06:30	2	4168	0.096	2	4168	0.108	2	4168	0.204		6	7	-1	11
06:30-07:00	2	4168	0.144	2	4168	0.06	2	4168	0.204		9	4	5	16
07:00-07:30	7	3968	0.09	7	3968	0.079	7	3968	0.169		5	5	1	17
07:30-08:00	7	3968	0.13	7	3968	0.054	7	3968	0.184		8	3	5	22
08:00-08:30	7	3968	0.191	7	3968	0.079	7	3968	0.27		12	5	7	28
08:30-09:00	7	3968	0.245	7	3968	0.097	7	3968	0.342		15	6	9	37
09:00-09:30	7	3968	0.194	7	3968	0.061	7	3968	0.255		12	4	8	45
09:30-10:00	7	3968	0.122	7	3968	0.068	7	3968	0.19		7	4	3	**48**
10:00-10:30	7	3968	0.104	7	3968	0.104	7	3968	0.208		6	6	0	**48**
10:30-11:00	7	3968	0.097	7	3968	0.108	7	3968	0.205		6	7	-1	48
11:00-11:30	7	3968	0.104	7	3968	0.148	7	3968	0.252		6	9	-3	45
11:30-12:00	7	3968	0.097	7	3968	0.144	7	3968	0.241		6	9	-3	42
12:00-12:30	7	3968	0.086	7	3968	0.108	7	3968	0.194		5	7	-1	41
12:30-13:00	7	3968	0.09	7	3968	0.101	7	3968	0.191		5	6	-1	40
13:00-13:30	7	3968	0.086	7	3968	0.112	7	3968	0.198		5	7	-2	39
13:30-14:00	7	3968	0.119	7	3968	0.09	7	3968	0.209		7	5	2	41
14:00-14:30	7	3968	0.068	7	3968	0.115	7	3968	0.183		4	7	-3	38
14:30-15:00	7	3968	0.101	7	3968	0.086	7	3968	0.187		6	5	1	39
15:00-15:30	7	3968	0.09	7	3968	0.101	7	3968	0.191		5	6	-1	38
15:30-16:00	7	3968	0.083	7	3968	0.115	7	3968	0.198		5	7	-2	36
16:00-16:30	7	3968	0.119	7	3968	0.101	7	3968	0.22		7	6	1	37
16:30-17:00	7	3968	0.09	7	3968	0.115	7	3968	0.205		5	7	-2	36
17:00-17:30	7	3968	0.079	7	3968	0.212	7	3968	0.291		5	13	-8	28
17:30-18:00	7	3968	0.043	7	3968	0.133	7	3968	0.176		3	8	-5	22
18:00-18:30	6	4379	0.042	6	4379	0.141	6	4379	0.183		3	8	-6	16
18:30-19:00	6	4379	0.046	6	4379	0.076	6	4379	0.122		3	5	-2	14
19:00-19:30	1	3500	0	1	3500	0.029	1	3500	0.029		0	2	-2	13
19:30-20:00	1	3500	0	1	3500	0	1	3500	0		0	0	0	13
20:00-20:30	1	3500	0	1	3500	0	1	3500	0		0	0	0	13
20:30-21:00	1	3500	0	1	3500	0	1	3500	0		0	0	0	13
21:00-21:30											0	0	0	13
21:30-22:00											0	0	0	13
22:00-22:30														
22:30-23:00														
23:00-23:30														
23:30-24:00														
Daily Trip Rates:			2.984			2.774			5.758					

Gross Floor Area SQM	**6023**
TRICS Factor	**60.23**
Starting Parking	**0**