57 – 71 Pratt Street, Camden

UK Power Networks

Air Quality Neutral Statement

November 2023

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Prepared By	Freya Hoyle	November 2023
Checked By	Trevor Olver	November 2023
Approved By	Brendan Quinn	November 2023

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Rappor Consultants Ltd
A: CTP House, Knapp Road, Cheltenham, GL50 3QQ
W: www.rappor.co.uk
T: 01242 523696
E: hello@rappor.co.uk

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1 Introduction

Proposals

1.1 Rappor Consultants Limited was appointed by UK Power Networks to prepare an air quality neutral statement to support the planning application (reference: 2023/3212/P) for creation of new car parking compound and storage facilities for operational vehicles at the site at 57 – 71 Pratt Street in Camden ('the Site'). The Site forms part of the wider existing UK Power Networks operational base.

1.2 The proposed car parking compound area became vacant following the demolition of existing electrical sub-stations that were no longer operational, therefore freeing up space within the UK Power Networks land ownership to facilitate on-site parking.

1.3 The application was submitted to the London Borough of Camden (LBC) in 2023 and comments were received from the Sustainability Officer, stating:

> *"the applicant will need to address how the application will meet Air Quality Neutral, as it applies to all applications covering an area larger than 1,000m^2. An Air Quality Neutral Statement should be prepared aligning with the London Plan Guidance. If the application cannot meet Air Quality Neutral, a payment to offset the impacts may be required."*

1.4 This air quality neutral statement was prepared in response to the comments from LBC's Sustainability Officer. The methodology applied to the air quality neutral statement, as provided to LBC during email consultation, is summarised below:

- Existing and Proposed Operations Review – as the vehicles proposed to utilise the new car parking and storage areas are already operational on the local road network, a review of their current parking and trip generation arrangements was undertaken to consider how the change of parking and storage operations may influence local air quality; and
- Air Quality Neutral Calculation – the number of additional vehicles able to access the Site as a result of the development proposals was utilised to calculate the air quality neutrality of the development proposals in accordance with the London Plan guidance[1];

[1] Mayor of London (2023) London Plan Guidance Air Quality Neutral

2 Existing and Proposed Operations Review

Existing Parking and Loading Arrangements

2.1 The Transport Assessment[2] submitted with the application was reviewed to confirm the existing operations in the vicinity of the Site with regard to vehicle parking and loading. At present, parking on Site is limited to approximately six parking spaces which is insufficient to accommodate the fleet operating in the area.

2.2 As a result of insufficient existing parking availability within the Site, the following arrangements are currently in place to accommodate vehicles needing to attend the Site:

- Agreement with LBC for branded UK Power Network vans to park for short periods in permit holder parking bays along Pratt Street whilst picking up / dropping off equipment and collecting job details from the offices within the Site; and
- Contract parking of 20+ parking spaces at the Lomax Curnock Estate Car Park on Pratt Street, approximately 180m west of the Site.

2.3 **Figure 2.1** illustrates the current location of parking arrangements relative to the Site.

[2] HUB Transport Planning Ltd (2023) T22577 Transport Assessment Royal College Street, Camden

Figure 2.1: Existing Parking Arrangements

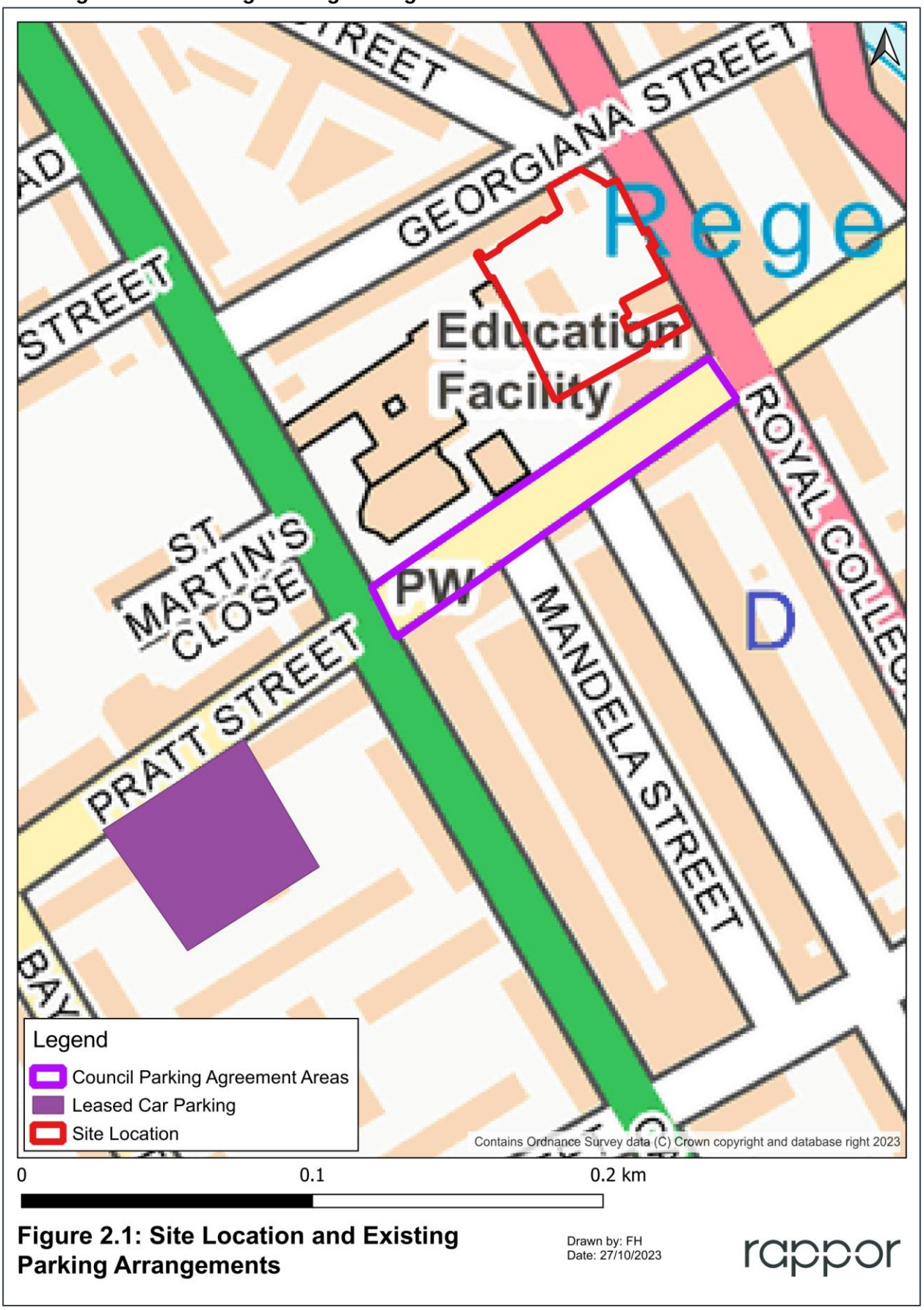

Figure 2.1: Site Location and Existing Parking Arrangements

Drawn by: FH
Date: 27/10/2023

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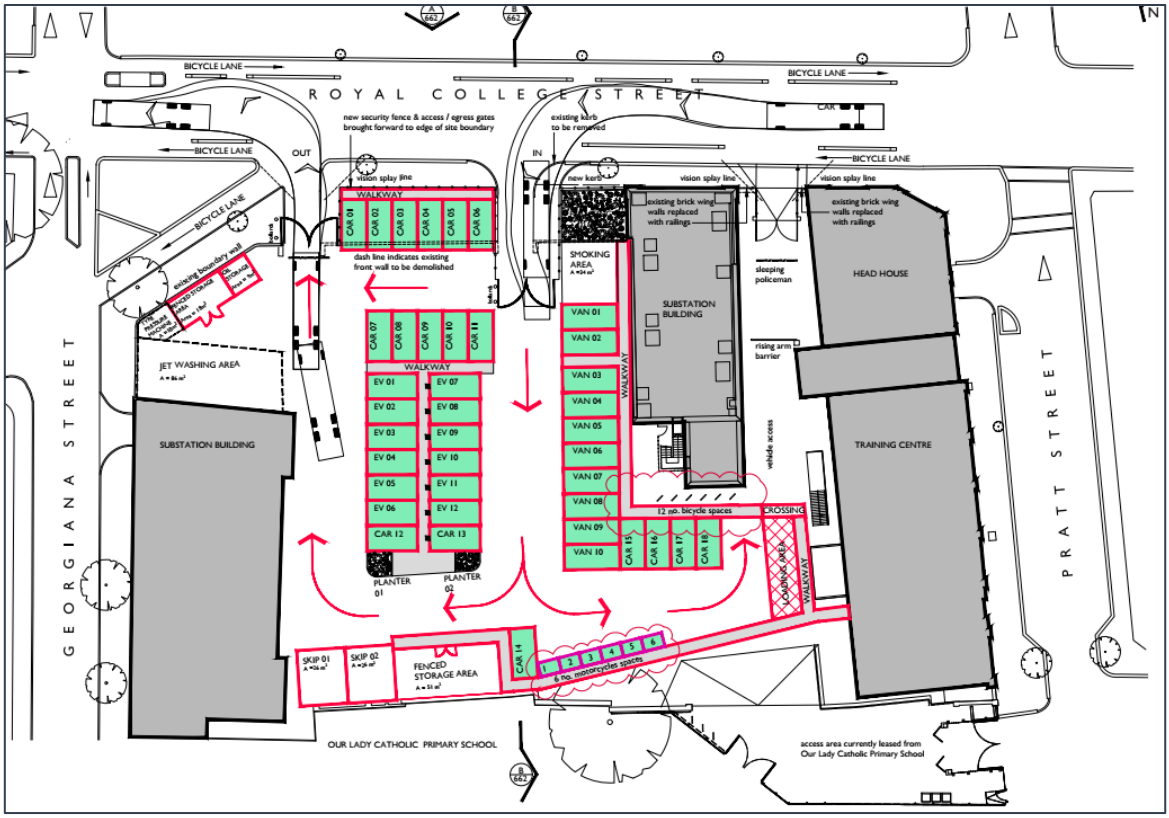
2.4 UK Power Networks uses around 30 branded vehicles and, where necessary, several contractors. The Transport Assessment[2] states that the Site generates 20 van movements in the morning, with the vans departing to assigned jobs in the region.

Proposed Parking and Loading Arrangements

2.5 **Figure 2.2** illustrates the proposed parking arrangements within the Site.

Figure 2.2: Proposed Parking Arrangements



2.6 The development proposals will include a total of 30 parking spaces, 10 van parking spaces, 2 skip places, 6 motorcycle spaces and 12 bicycle spaces. Of the 30 parking spaces, 12 will be reserved for Electric Vehicles.

2.7 The development proposals will enable staff and contractors to collect equipment and job details at the Site before direct deployment to jobs, removing the need to park on-street. This will reduce the impact of the operations at the Site on local residents by freeing up on-street permit parking, and releasing 20+ contract parking spaces at the nearby council-operated car park.

2.8 No increase in vehicle movements is expected as a result of the proposals; the proposals will simply enable more efficient operations for UK Power Networks when deploying to jobs, in addition to reducing any current inconvenience to local neighbours from on-street parking and loading.

3 Air Quality Neutral Calculation

3.1 The London Plan Air Quality Neutral Guidance[1] provides benchmarks for acceptable building and transport emissions for new development across Greater London. As no energy proposals are included within the application, no consideration of building emissions was required for the air quality neutral assessment. The air quality neutral assessment has therefore focussed solely on transport emissions.

Deriving the Transport Emission Benchmark (TEB)

3.2 The first step in the air quality neutral assessment is to determine the Transport Emission Benchmark (TEB) for the development. The guidance provides a benchmark trip rate per m^2 of floor area for different use classes, with different trip rates allocated based on whether the development is in the Central Activities Zone (CAZ), Inner or Outer London. The Site is located in Inner London and therefore the Inner London trip rates were utilised to determine the TEB. The storage and distribution benchmark was utilised to derive the TEB as the most similar land use based on the nature of operations at the Site e.g. storage and distribution of specialist equipment for jobs. **Table 3.1** details the TEB for the proposed development.

Table 3.1: TEB for the Site

Land Use	Benchmark trip rate per m^2	Site area m^2	TEB (trips per year)
Storage and distribution	5.5	2,720	14,960

Determining Development Emissions

3.3 The actual trip generation for the proposed development was determined based on information provided by the Project Transport Consultant, HUB, and the information contained in the Transport Assessment[2]. As stated in paragraph 2.8 above, the proposals at the Site will not change the number of trips associated with UK Power Network operations. The Site currently provides six on-site car parking spaces and therefore, the existing trips associated with these spaces were discounted from the number of trips considered in the air quality neutral assessment. **Table 3.2** details the net trip generation associated with the development proposals.

Table 3.2: Actual Trip Generation for the Site

Total trips per day	Existing on-site parking trips per day	Remaining net trips per day	Net trips per year
50	12	38	13,870

3.4 The actual trip generation associated with the additional vehicles able to park within the Site was lower than the TEB derived for the Site. The proposed development was therefore considered air quality neutral and no measures were required to offset emissions associated with trips generated by the Site.

3.5 Whilst the TEB was not exceeded when considering the net change in trips at the Site, a sensitivity test was undertaken to consider the trips associated with the Site as a whole, including existing vehicles already parking on Site. The sensitivity test is detailed in **Appendix A**.

4 Summary

4.1 An air quality neutral statement was prepared to support the application for creation of additional car and van parking and storage facilities at the UK Power Networks site on Pratt Street in Camden.

4.2 The development proposals seek to utilise vacant space within the Site to provide on-site parking for operational vehicles that currently have to utilise local on-street car parking or contract parking facilities. The proposals will not lead to any change in the number of trips associated with operations by UK Power Networks from the Site, instead they will provide a single point for staff to collect and store equipment prior to attending jobs across the region.

4.3 An air quality neutral calculation was undertaken for transport emissions associated with the vehicles that would be able to park on-Site as a result of the development proposals. The TEB derived for the Site was greater than the trips associated with the operations. The proposed development was therefore considered to be air quality neutral and compliant with the London Plan.

4.4 A sensitivity test was undertaken to consider the transport emissions associated with the proposed development without discounting existing vehicles parking within the Site. The excess transport emissions associated with the total trip generation for the Site marginally exceeded the TEB and a damage cost calculation was undertaken in accordance with Mayor of London and Defra guidance. The cost of low emission measures proposed on Site exceeded the damage cost derived for the excess transport emissions. It was therefore considered that the proposals appropriately offset any additional emissions associated with vehicles accessing the Site. No further on-site measures or off-setting costs are therefore required.

Appendix A: Damage Cost Calculation

When considering the trips associated with the proposed development with no discount for existing trips utilising on-site car parking, the TEB derived for the Site was marginally exceeded, as detailed in **Table A1**.

Table A1: Trip Generation for the Site – All Trips

Total trips per day	Trips per year	TEB trips	Excess trips per year
50	18,520	14,960	+3,290

In accordance with the Mayor of London guidance, where the TEB is exceeded, the excess emissions must be calculated and utilised to derive a damage cost associated with the excess emissions. The damage cost derived for the excess emissions should be used to determine whether on-site measures to reduce emissions are sufficient, or whether additional measures or off-setting payments may be required.

The emissions associated with the proposed development were calculated in accordance with the guidance. The Inner London emission factors per vehicle km were utilised and the 'office use' average distance for Inner London utilised as this derived the greatest trip distance and therefore the highest damage cost. **Table A2** details the TEB emissions, the proposed development emissions and the excess emissions over the TEB.

Table A2: Transport Emissions

Parameter	Trips per year	Average distance per trip* (km)	Emission rate g/km		Emissions g/km		Emissions tonnes	
			NOx	PM2.5	NOx	$PM_{2.5}$	NOx	$PM_{2.5}$
TEB Emissions	14,960	7.2	0.39	0.032	42,0007	3,447	0.042	0.003
Development Emissions	18,250				51,246	4,205	0.051	0.004
Excess Emissions above TEB Emissions							**0.009**	**0.001**

The methodology set out in Defra guidance was utilised to derive the emissions cost for the excess transport emissions associated with the proposed development, utilising the Defra Rebasing Factors and Damage Costs[3].

The inputs utilised in the emissions cost calculation are detailed in **Table A3**.

Table A3: Emissions Cost Calculation Inputs

Input	Value
Cost per Tonne per Pollutant	NOx = £60,239
	$PM_{2.5}$ = £450,215
Rebasing Factor	0.9258
Rebased Cost per Tonne per Pollutant	NOx = £55,770
	$PM_{2.5}$ = £416,812
Development Emissions (Tonnes)	NOx = 0.009
	$PM_{2.5}$ = 0.001

[3] Defra (2023) https://www.gov.uk/government/publications/tag-data-book

The emissions cost calculation for the proposed development is detailed in **Table A4**.

Table A4: Damage Cost associated with Excess Emissions

Year	NOx Emissions Cost*	$PM_{2.5}$ Emissions Cost*
1	£55,770 x 0.009T = £515	£416,812 x 0.001T = £316
2	X 1.02% = £526	X 1.02% = £322
3	X 1.02% = £536	X 1.02% = £329
4	X 1.02% = £547	X 1.02% = £335
5	X 1.02% = £558	X 1.02% = £342
Pollutant Total Cost	£2,681	£1,644
Combined Total Cost		**£4,325**

**Discrepancies due to rounding effects.*

The calculated emissions cost from **Table A4** of £4,325 is the 'health cost' associated with excess development road traffic emissions prior to any measures to minimise emissions associated with the development. In accordance with the guidance, the measures incorporated into the proposed development and their associated cost were reviewed to consider the ability of the proposed development to off-set emissions relative to the calculated emissions cost. **Table A5** sets out the measures incorporated within the proposed development to minimise emissions, and their costs.

Table A5: Development Measures and Costs

Measure	Indicative Cost
EV Charging Infrastructure	£7,000
Cycle parking	£1,800
Total Development Measure Costs	**£8,800**

The indicative costs of development measures designed to minimise emissions associated with the development exceed the emissions cost calculated based on the excess development-generated traffic movements. It is therefore considered that no further measures are required to achieve the offsetting of development emissions.

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Rappor Consultants Ltd

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Bedford
Birmingham
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Exeter
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Manchester