

Kentish Town Planning Framework-Infrastructure Requirements

June 2019

Troy Planning + Design For Camden Council



Kentish Town Planning Framework-Infrastructure Requirements *Prepared by*

Troy Planning + Design 14-18 Emerald Street, London, WC1N 3QA www.troyplanning.com

in association with: LUC Navigus Planning Ltd

Prepared on behalf of London Borough of Camden 5 Pancras Square London N1C 4AG <u>www.camden.gov.uk</u>

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Please note that this Kentish Town Planning Framework-Infrastructure Requirements study has been prepared alongside the Borough Wide Infrastructure Study and therefore should be read in conjunction with it.

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0. Executive Summary

This document looks at the infrastructure requirements arising from proposed mixeduse development at two main areas within Kentish Town, as proposed in the emerging Kentish Town Planning Framework (KTPF). This document specifies the infrastructure requirements in regards to waste, energy, water, transport, health, education, community facilities and open space and gives indicative costs based on the development scenario.

As a baseline for considering infrastructure requirements and engaging with stakeholders, this study takes the midpoint of four development options as proposed in the KTPF. This assumes a proposed number of dwellings of 2,585 and a population growth of 7,084. The below summarises the conclusions of this study in regards to the key infrastructure areas mentioned above.

Waste

It is possible for the development to introduce an innovative waste collection solution to aid the future proofing and sustainability of development. The inclusion of Envac (or similar), a vacuum system to collect household waste centrally, in the scheme would allow for an efficient use of space and ensure that waste can continue to be collected efficiently even if transport norms are to change.

Energy

The exact energy requirements of the site are unknown at this time and will need to be confirmed with developers at the planning application stage. There is an opportunity to add to the Decentralised Energy Network within the Borough and ensure that a sustainable power and heating source is installed, similar to other locations nearby.

Water

It is not envisaged that there will be any infrastructure issues in regard to water, and that Thames Water will fund any required upgrades.

Transport

The key focus in terms of transport is the facilitation of increased use of public transport as well as cycling and walking infrastructure. There are many transport projects being considered in and around the Kentish Town area which, if delivered, will provide improvements that the proposed KTPF would benefit from. However, not all of these projects have funding at present. Therefore, the proposed development could contribute towards some of the projects aimed at improving cycling and walking uptake.

Utilities

Shared utility ducts may provide an innovative solution to ensuring a technologically agnostic approach to providing utilities for the long term. This would allow utilities such as electricity, broadband and phone lines to share the same pipe network. This is feasible when looking at the large scale of redevelopment. It also means that infrastructure is flexible to future technological advancements.

Health

There are two large health centres in the area and the proposed scheme would generate a need for four additional GPs, which could likely be accommodated through extensions to the existing practices.

Education

It is anticipated that there will be a surplus of primary and secondary space in the area in the future given the recent drop in ONS actual registered births. Therefore, it is expected that there should be sufficient capacity to accommodate both primary and secondary school needs arising from the proposed development. It has not been possible to calculate the total required further education need, but there will potentially be a need for 158 FE places for 16-17 year olds. There will need to be 55 FTE adult learning places.

Community facilities and open space

It is expected that there will be an approximate need for 2ha of children's play space, plus an additional 6.5ha of open space and 0.14ha of allotments. These will need to be delivered and funded by the developer.

1. Introduction

The London Borough of Camden is preparing a Planning Framework for the comprehensive redevelopment of Kentish Town¹. The purpose of the redevelopment is to create a new mixed-use neighbourhood, delivering new homes, jobs and commercial space.

The Kentish Town Planning Framework (KTPF) will establish a vision for the area and will be adopted as a Supplementary Planning Document (SPD) to help guide development. It will play an important part in the decision-making process regarding planning applications within the framework area.

Kentish Town is situated in the north of the Borough and is identified as a key growth area, expected to make a substantial contribution towards meeting the identified need for housing and jobs. The framework area benefits from good transport access, with nearby train stations including Kentish Town, Kentish Town West and Gospel Oak, plus a tube service from Kentish Town. Kentish Town Road is located close to the development area and is home to a number of shops and businesses. The area is also in close proximity to Hampstead Heath. The framework area is shown in Figure 1.

There are two main areas proposed for redevelopment in the KTPF, which are the Regis Road Site and the Murphy Site. They are physically separated from each other by a railway line running east west through the middle of the site. Both parts of the site are considered suitable for intensification. Transformation of the sites will provide the opportunity for businesses to grow in addition to supporting new businesses. The redevelopment sites will also provide for the delivery of a significant number of new homes, making a contribution to meeting the housing need of the Borough.

Critical to any large-scale redevelopment is the consideration of infrastructure requirements, particularly at an area specific level. The term infrastructure covers a wide range of services and facilities provided by public and private organisations. The types of items defined as infrastructure are outlined in section 216(2) of the Planning Act 2008 (as amended)². This Infrastructure Study considers all types of infrastructure and groups them into the themes of physical, social and green infrastructure.

The study seeks to address, as far as possible based on available information, what infrastructure will be required as a result of new growth in the KTPF area, where it will be required, how it will be delivered and when. Discussions, workshops and meetings have taken place with a variety of infrastructure providers both within the Council and with external organisations, to develop an understanding of infrastructure requirements.

¹ <u>https://www.camden.gov.uk/kentish-town-planning-framework1</u>

² http://www.legislation.gov.uk/ukpga/2008/29/section/216



Figure 1 Kentish Town Framework Area³

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https://www.camden.gov.uk/documents/20142/3797089/Kentish+Town+draft+planning+framework+October +2018.pdf/d51891a1-8bec-9de7-f8b5-a7d07817d752

2. Quantum of growth and delivery programme

It is important to understand the quantum of proposed growth, and the phasing of it, so far as it is known, when considering infrastructure requirements. The KTPF is in the relatively early stages of production and, therefore, the quantum of development is still subject to refinement. Phasing is not known at this time.

The Infrastructure Study considers two options for development, within each of which are two scenarios, reflecting different levels of affordable housing provision. The level of growth proposed in each Option is outlined below, with a breakdown of dwelling size and tenure in the following tables. These options are for the whole framework area.

For clarity, these tables also show the breakdown of affordable housing (intermediate rent and social rent) in the two right hand columns which sum to the column labelled 'affordable'. The split of affordable housing is based on Policy H4 of the Camden Local Plan 2017, which states that "the guideline mix of affordable housing types is 60% social-affordable rented housing and 40% intermediate housing."

- Option 1a: 2,250 homes with 50% affordable (see Table 1)
- Option 1b: 2,250 homes with 35% affordable (see Table 2)
- Option 2a: 2,920 homes with 50% affordable (see Table 3)
- Option 2b: 2,920 homes with 35% affordable (see Table 4).

Table 1: Option 1a- Housing Mix of 50% affordable					
	Ten	iure		Split of affordable housin	
	Market	Affordable (50%)		Intermediate rent (40%)	Social rent (60%)
1 bed	112	360		225	135
2 bed	450	304		135	169
3 bed	45	214		45	169
4 bed	113	247		45	202
Sub Total	1,125 1,125			450	675
Total	2,250			1,1:	25

Table 1 Option 1a- Housing Mix of 50% affordable

Table 2: Option 1b- Housing Mix of 35% affordable					
	Ten	iure		Split of affordable housin	
	Market	Affordable (35%)		Intermediate rent (40%)	Social rent (60%)
1 bed	146	252		157	94
2 bed	585	212		95	118
3 bed	585	150		32	118
4 bed	147	173		31	142
Sub Total	1,463	1,463 787		315	472
Total	2,250			78	7

Table 2 Option 1b- Housing Mix of 35% affordable

Table 3 Option 2a- Housing Mix of 50% affordable

Table 3: Option 2a- Housing Mix of 50% affordable					
	Ten	iure		Split of affordable housing	
	Market	Affordable (50%)		Intermediate rent (40%)	Social rent (60%)
1 bed	146	467		292	175
2 bed	584	394		175	219
3 bed	584	278		59	219
4 bed	146	321		58	263
Sub Total	1,460 1,460			584	876
Total	2,920			1,40	60

Talala 1 Quations	26 Haustin - Min	of 250/ offereductor
Table 4 Option .	2D- HOUSING MIX	of 35% affordable

Table 4: Opt	Table 4: Option 2b- Housing Mix of 35% affordable					
	Tei	nure		Split of affordable housir		
	Market	Affordable (50%)		Intermediate rent (40%)	Social rent (60%)	
1 bed	190	327		204	123	
2 bed	759	276		123	153	
3 bed	759	194		41	153	
4 bed	190	225		41	481	
Sub Total	1,898	1,898 1,022		409	613	
Total	2,920			1,02	22	

3. Population and child yield estimates

The Greater London Authority (GLA) provide a standardised method to calculate the population yield from development. Using the figures outlined in section 2 the following population yields are generated for each option.

Table 5: Populat housing mix	Table 5: Population yield based on Option 1a, 50% affordable housing mix					
Age	Population yield from market housing	Population yield from social housing	Total population yield			
0-3	174.6	423.5	598.1			
4-10	178.6	478.8	657.4			
11-15	78.3	382.0	460.3			
16-17	33.1	161.4	194.5			
18-64	2,227.3	2,029.4	4,526.7			
65+	52.9	46.7	99.6			
Total Yield	2,774.8	3,521.8	6,266.6			

Table 5 Population yield based on Option 1a, 50% affordable housing mix

Table 6 Population yield based on Option 1b, 35% affordable housing mix

Table 6: Popul housing mix	Table 6: Population yield based on Option 1b, 35% affordable housing mix					
Age	Population yield	Population	Total			
	from market	yield from	population			
	housing	social housing	yield			
0-3	227.0	296.3	523.3			
4-10	232.2	335.0	567.2			
11-15	101.9	267.5	368.4			
16-17	43.0	113.1	156.1			
18-64	2,896.4	1,420.0	4,316.4			
65+	68.8	32.7	101.5			
Total Yield	3,569.3	2,464.6	6,033.9			

Table 7: Population yield based on Option 2a, 50% affordable housing mix					
Age	Population yield	Population	Total		
	from market	yield from	population		
	housing	social housing	yield		
0-3	226.4	549.8	776.2		
4-10	231.6	621.6	853.2		
11-15	101.5	496.3	597.8		
16-17	42.9	209.7	252.6		
18-64	2,889.8	2,634.4	5,524.2		
65+	68.7	60.7	129.4		
Total Yield	3,560.9	4,572.5	8,133.4		

Table 8 Population yield based on Option 2b, 35% affordable housing mix

Table 8: Population yield based on Option 2b, 35% affordable housing mix					
Age Population yield Population Total			Total		
	from market	yield from	population		
	housing	social housing	yield		
0-3	294.3	384.8	679.1		
4-10	301.1	435.1	736.2		
11-15	132	347.4	479.4		
16-17	55.8	146.8	202.6		
18-64	3,756.8	1,844.1	5,600.9		
65+	89.3	42.5	131.8		
Total Yield	4,629.3	3,200.7	7,830		

For the purposes of this study we have used a midpoint of the four options. This establishes a baseline for considering infrastructure requirements, allowing for constructive dialogue with service providers. The proposed number of dwellings envisaged in the options ranges from 2,250 and 2,920, giving a midpoint of 2,585. In terms of population, this ranges between 6,034 and 8,133, giving a midpoint of 7,084. These two midpoint figures are used in the following sections.

4. Engagement Feedback

A workshop was held with infrastructure service providers at Camden Council in January 2019, providing attendees with an overview of the wider Infrastructure Study being prepared for the borough as a whole, as well as potential changes in the Kentish Town Planning Framework area.

The Kentish Town growth scenarios were still being developed at the time of the workshop, but service providers were presented with an indicative level of growth of 2,000 homes and approximately 65,000 m² of commercial floorspace in the Kentish Town Framework Area, based on the most up-to-date information at the time.

There were two strong messages that arose from the workshop discussions in relation to Kentish Town. They were (a) the need to include technology agnostic infrastructure and (b) the need to consider the impact of the area effectively being two separate sites owing to the severance caused by the railway line.

The information below summarises the outcomes of the workshop and the key headlines arising from it.

4.1. Thames Water

Thames Water consider the redevelopment to offer a good opportunity to plan holistically for water provision. They do not consider there to be any real showstoppers in terms of capacity. Thames Water highlighted that they own strategic assets in Kentish Town that will need to be safeguarded.

4.2. Energy

Colleagues from the London Borough of Camden sustainable energy team advised that there is a particular power constraint in this area. The separation of the area owing to the presence of the railway line means that there is likely to be a need for two electricity connections as it unlikely that a single connection for the site, which spans the railway line, could be provided. If this is the case, and the site requires provision of two substations (one on either side of the railway line), this might affect the developable area of the site. Whilst substations vary in size based on the development they need to provide for, as well as any existing capacity, there will be additional land required for access and clearance.

It is considered that the site presents an opportunity for development to be an exemplar in terms of sustainable energy, with examples given of on-site heating or cooling. It was noted that it is important to design the development to be 'technologically agnostic'. This not only prevents the potential redundancy of infrastructure reforms but also offers a way of ensuring the safeguarding of a choice of supplier, rather than users being locked into one contractor or provider.

4.3. Waste

Colleagues from the London Borough of Camden Environmental Services team highlighted that the Regis Road recycling centre is safeguarded through Policy CC5 in the Local Plan. As such, it should be retained as part of any development, but could be moved to a different part of the site. However, significant investment has recently been made to protect groundwater from any pollutants from the centre, which may make any move unlikely, at least in the short to medium term. It was suggested that other scenarios might need exploring in the future, such as whether other compatible uses might be integrated and provided above a recycling centre to make efficient use of space.

4.4. Broadband and Mobile Connections Optimity

A representative from the internet provider Optimity attended the workshop. It was discussed that providers find it useful to consider being 'technologically agnostic' in terms of internet options, allowing for technology advancements. Optimity also suggested the use of shared cable ductwork that can accommodate multiple operators, or the option of two areas, within the KTPF area, where fibre congregates, to act as a data centre.

4.5. Education

There are 2x 1FE primary schools in the area with surplus capacity for early years and primary age pupils, although this does not account for the housing plans within the Kentish Town area. There is currently a rising primary surplus, following the actual registered birth drop from 2013 in Camden and London. At secondary level, surplus is anticipated to rise from 2023/24. Most recent actual registered ONS birth data is comparable to the late 1990s and is low. This is something the Council is monitoring very closely as part of the school place planning. There is a need for more Special Educational Needs (SEN) provision within the local schools. The long potential timeframe of development means that there are likely to be changes in child yields by that time and therefore the position is likely to have changed by the time the dwellings are completed and occupied.

4.6. Health

In the absence of a Clinical Commissioning Group representative, little feedback regarding Kentish Town health requirements was given. There are currently a number of health centres in close proximity to Kentish Town, including Parliament Hill Medical Centre, Queens Crescent Practice and Caversham Group Practice. It is not clear whether capacity exists at these centres for new patients.

4.7. Green spaces

The role of the area as a gateway to Hampstead Heath is considered to be a key opportunity for green infrastructure provision and accessibility. A green spine along the railway embankment could provide a link from Kentish Town with Hampstead Heath, which would help provide access to green spaces. Kentish Town Community Farm to the immediate west of the Kentish Town area provides an opportunity to experience nature and agriculture.

4.8. Police

Kentish Town Police Station is adjacent to the site and is one of only two police stations offering counter service in the borough. It will be important that its function is not compromised.

4.9. Pitches and play provision

Talacre Leisure Centre to the south of the framework area has two outdoor artificial grass football pitches. Parliament Fields to the north-west also has pitches. Therefore, it can be anticipated that there is no additional need. It has been suggested that a skatepark and 'hang-out space' is needed.

5. Physical Infrastructure

This section of the study considers the physical infrastructure requirements, as a result of the development proposed for the KTPF. The infrastructure covered is:

- Waste
- Energy
- Water
- Transport

5.1. Waste

5.1.1. Context

The only safeguarded waste site in Camden is the Regis Road Reuse and Recycling Centre, located within the KTPF area.

In line with the Borough as a whole, there is currently a general lack of sufficient waste storage facilities on-site at existing domestic and commercial properties for Kentish Town. Any new development will therefore need to ensure that on-site waste storage facilities are provided so as to not exacerbate the existing problems.

The current Kentish Town area has a weekly collection for food and recycling waste, and a fortnightly collection for domestic waste collection.

5.1.2. Requirement

The Regis Road Reuse and Recycling Centre (RRC) is situated within the KTPF. Policy CC5 in the Camden Local Plan 2017 states that the Council will *"safeguard Camden's existing waste site at Regis Road unless a suitable compensatory waste site is provided that replaces the maximum throughput achievable at the existing site."* The IDP Update 2015 stated that the Regis Road RRC has a maximum capacity of 9,497 tonnes. Therefore, should the Regis Road Reuse and Recycling Centre site be redeveloped as part of the KTPF, a replacement facility will be required, offering the same capacity. It has been noted by the Environmental Services team at the Council that additional or combined depot facilities would be advantageous as part of any such reprovision, in order to increase capacity.

Development in the framework area will need to ensure that the provision of bin storage is accessible and that they are provided in sufficient number. If the development does involve the reconfiguration of the RRC, this will need to be accounted for in the cost of the development. The cost of domestic waste collection will be the responsibility of the Council, in part funded by the increase in Council Tax income as a result of additional residential properties.

5.1.3. Delivery Issues

Policy T2 in the Local Plan requires all new development in the Borough to be car-free. Whilst this is beneficial in terms of the environment and for health outcomes, waste providers have expressed concern with the difficulties this raises in terms of ensuring that waste can be centrally located to aid in the collection of waste from the street. It may be necessary to explore different waste collection options (see case study below).

5.1.4. Cost and Timing

Waste collection from residential properties is a service provided by the Council and is funded by Council Tax revenue. There may well be challenges to overcome in relation to the increased pressure on resources on collection days for the site, particularly if redevelopment results in loss of the existing RRC waste facilities on site and thus results in the need to transport waste further afield.

The Council's website states⁴ that the legal responsibility for managing business waste lies with the establishment or business that produces it. They must pay for their waste disposal and recycling and this can be done through pay-as-you-go or contract services, available from a number of suppliers. It will thus be important that storage of bins is planned into the development for businesses, but the cost for collection will be a concern for the businesses themselves.

If the preferred development scheme results in the need to relocate or reconfigure the Regis Road RRC facility it would incur a substantial cost, although details relating to costs and timings of this are not yet known. Relocation would be required to occur during the design phase of the development, so that the facility can be incorporated properly into any masterplans, and/or an alternative suitable location found. If an alternative site is required for the relocation of the RRC, it is fair to assume that this would need to be operational before the existing centre could close down. This may have an impact on the phasing of any development.

An 'Envac' facility is detailed in the case study below, however it is useful here to understand an indicative cost for the use of Envac from two recent examples. In Australia⁵, Envac is being installed on a site for 2,000 homes and is expected to cost approximately A\$20m (£10million). The project is currently under construction. Similarly, the Wembley City development has also installed Envac, at a cost of £6m⁶. This was to provide an innovative waste solution for 7,000 new homes. Whilst this is not a specific infrastructure requirement, it presents an alternative scenario that would assist with the need for on-site waste collection within schemes that are designed to be 'carfree'.

⁴ <u>https://www.camden.gov.uk/business-waste-information#fvqe</u>

⁵ <u>http://www.globalconstructionreview.com/news/rubbish-revolution-hailed-aust7ralia-g7ets-fir7st/</u>

⁶ <u>https://www.edie.net/library/Wembley-kick-off-Envacs-vacuum-waste/6162</u>

5.1.5. Case Study

Where a comprehensive redevelopment is proposed, such as at KTPF, there is the unique opportunity to reconsider the overall approach to waste. Whilst the London Borough of Camden is working hard to reduce waste in addition to increasing recycling, there is the scope for an innovative solution. Envac uses a vacuum system to collect household waste in a central location, allowing for more efficient waste collection by the Local Authority or in some instances it can go straight to a recycling plant.

Therefore, an innovative concept, such as Envac could be a solution for the KTPF. Envac changes the way waste is collated and collected to require fewer access points for vehicles.

Case Study: The Use of Envac as an alternative waste collection system

Hammarby Sjöstad, Stockholm

The district of Hammarby Sjöstad was designed as an ambitious sustainable urban development and Envac's underground waste transportation system is a key part of the programme. In relation to waste, there were three objectives:

- 1) Reduce total amount of household waste;
- 2) Reduce waste collection by heavy traffic;
- 3) Introduce source separation.

Envac is a network of underground pipes which transport the waste from inlet bins to storage containers. The use of air moves the waste from the inlets to the containers, which are located on the outskirts of the area and which are easily accessed by a collection lorry. The system can be deployed in a range of development schemes and sizes.

The network relies on users putting their sorted waste into designated 'inlets' which can be located in visible areas throughout the development. The waste then travels to a collection station where it can be collected by a refuse vehicle. Waste is stored in a central location that enables easy collection from a single point, thus reducing trips.

Importantly, the new residents in Hammarby Sjostad are presented with information guides to waste. There is also a centre for the disposable of hazardous waste, where residents can ask questions about how to dispose of various waste types. Residents also collect biodegradable food waste bags from the centre.



Most stationary systems supplied today are designed for source separation.

1. Waste is disposed off into ordinary refuse chutes. One for each fraction.

All waste fractions are transported through the same pipe system at a speed of 70 km/h.

- 5. The waste is guided to the correct container.
- The waste is stored for a short while on a valve, which opens when the computer-controlled emptying process starts. One fraction is emptied and collected at a time.
 The waste is guided to the correct contained for the correct

Fans create the partial vacuum that sucks the waste to the collection station.

7. The largest fractions are compressed.



(source

http://www.envacgroup.com/storage/ma/beee3af8d215469f9e11e6c86fcdf9b4/200577ca92f148e7bf9feaa07248adb4/pdf/950A 08E1EE6315F6C176BAB8F76C47AB9C4539FA/HammarbySjostad_Brochure_ENG.pdf?MediaArchive_ForceDownload=True)

5.2. Energy

5.2.1. Context

The area of Kentish Town is supplied by a robust electrical network, delivered by major substations to the south, east and north, with no specific problem areas identified by UK Power Networks (UKPN). UKPN has advised that there are a number of significant investment projects underway to provide future reliability of the network and to ensure sufficient capacity of the area. As part of these projects, £6.7m is being invested in a site in Camden Town (Georgiana Street) and £7.7m in a site in Islington (Hornsey Street).

5.2.2. Requirement

The infrastructure needed to support the proposed growth in the Framework area should be confirmed at the planning application stage by the developers, once further information is available to confirm the anticipated power requirements of individual homes. It will be important for this to take account of potential electrification of heating and transport. Based on the current level of available information, it is anticipated that the new development could be supplied either by extensions to existing circuits or through the provision of new circuits.

5.2.3. Delivery Issues

It is crucial to acknowledge the separation of the site caused by the existing railway lines. This may well mean that two separate networks (both north and south of the railway line) are needed to supply electricity to the Framework sites, in the likely event that connections cannot be run above or below the railway lines.

There are not currently any decentralised energy networks (DEN) within the KTPF. However, it is expected that a site wide DEN would be provided as part of this development, contributing to sustainability objectives. This will also support Policy GC6 in the emerging London Plan, requiring London to become a zero-carbon city by 2050, with which planning applications will need to be determined in accordance with. This would supply the development's heating, and possibly cooling, demands from a centralised, highly efficient plant. It is expected that zero-combustion technologies will be used (e.g.: heat pumps, required to extract heat from one place and transfer it to another) which will require significant electrical connections. Officers from the sustainability team and the Council have suggested that district heating/cooling pipework and an energy centre could be installed as part of the development.

In line with established thoughts on the reduction in the use of non-renewable energy sources, there is unlikely to be a requirement for a gas network on-site, unless necessary for certain industrial uses. The need for gas has been replaced by the proposal for DEN.

It is likely that DEN will be necessary in order to deliver on objectives for planning for sustainability and carbon obligations for both Camden and the GLA. As per Policy GC6 of the emerging London Plan, it is important to 'improve energy efficient and support

the move towards a low carbon circular economy' and solutions such as DEN can help towards this.

However, if electricity from the grid is continuing to be relied upon, then it has been suggested by UKPN that new and enhanced infrastructure is likely to be required for this development and land may be required for substations. The developable area of the site will be impacted upon by the presence of substation(s), although only by a very small amount (approximately less than 50m² per substation⁷).

The delivery of energy infrastructure will be critical to the development of Kentish Town, particularly if there is to be less reliance on gas. It will be important that there are ongoing discussions with UKPN as work on the proposed development progresses, to ensure that sufficient electricity capacity is in place.

5.2.4. Cost and Timing

Costs for new connections will either by funded wholly by the developer or apportioned to both the developer and UKPN. This will follow the UKPN published Common Connection Charging Methodology⁸.

Upfront DEN costs could be high, but it is expected that this would be operated as a commercial business to sell heat to customers. This would enable cost recovery over the project lifetime. It could be funded via a number of sources including developer-ownership and operation, an Energy Service Company or through concessions.

Costs will still be subject to further refinement once the details of the development can be understood further.

5.2.5. Case Study

The case study below considers an example in Southwark, and the opportunities that exist when undertaking a large regeneration project in a busy part of London.

⁷ This figure has been arrived at through research of planning applications for substations.

⁸ <u>https://www.ukpowernetworks.co.uk/internet/en/about-us/regulatory-</u> information/documents/UKPN%20CCCMS%20-%20July%202018%20v1.0%20PXM%202018-06-27.pdf

Case Study: DEN in Elephant Park, Southwark

Elephant Park in Elephant and Castle is a regeneration project for the Heygate Estate, which, when complete in 2025, will deliver 3,000 homes and over 30,000sqm of commercial floorspace. It will be supplied by a net zero energy centre. The permanent energy centre will have a CHP unit with modulating boilers to supply heat and hot water as well as thermal stores. The Elephant Park website quotes

"The Elephant Park Energy Hub, which is currently in construction, will include a combined heat and power plant (CHP) utilising natural gas, offset by grid-injected biomethane, and will deliver net zero-carbon, affordable heat and hot water to residents and businesses across Elephant Park, with the capacity to connect into a further 1,000 homes across the Elephant & Castle Opportunity Area. The building will also become a hub for the local community, as it will include a new nursery, community café and children's playground".

The project involved the installation of 3km of buried district heating mains, which cost £750,000.

The concept of the 'complete street' is illustrated in Figure 2 and shows how any new streets incorporated within the development of the Kentish Town area might be set out, including common service ducts for placement of all utilities, providing for easy access and maintenance, and thus the ability to readily upgrade the street as new technology becomes available.



Figure 2 The Complete Street example, with shared facilities

5.3. Water

5.3.1. Context

Thames Water is the provider for both foul and drinking water in the Kentish Town area. The Camden Local Plan requires (through Policy CC3) developments to incorporate water efficiency measures. This can include measures such as water efficient fittings and appliances and by capturing and re-using rain water and grey water on site.

5.3.2. Requirement

There are not currently any existing plans or proposals for the area. Water and waste water capacity will need to be assessed to fully understand any requirements. To make this assessment, Thames Water would require further information on the scale, location and phasing of the development. The estimated cost will also only be known following further assessment.

The Local Plan states that "Residential developments will be expected to meet the requirement of 110 litres per person per day (including 5 litres for external water use)."

5.3.3. Delivery Issues

The railway line and the bridge may cause issues if water mains and/or sewers are required to serve the development. Separate infrastructure may be required either side of the line.

It is important to note that some key drainage assets pass through the area. They include branches of the Fleet Trunk Sewer and a high-level storm relief sewer. These assets will need to be safeguarded. This will potentially impact on the layout of any proposed development.

5.3.4. Cost and Timing

As mentioned above, exact costings can only be calculated following further assessment once specific site details are known. Surface water attenuation on development sites should be funded as part of the construction, as it is a planning requirement. Additional water and waste water infrastructure is funded through Infrastructure Charges that the developers pay to Thames Water on occupation of the development. Further information is available at <u>https://developers.thameswater.co.uk/New-connection-charging</u>.

Whilst it is not expected that any showstoppers to development are present from a water provision perspective, it is still a critical piece of infrastructure for which there will need to be sufficient capacity in place to allow for the initial occupation of the residential and commercial properties.

5.4. Transport

5.4.1. Context

The Kentish Town area provides a number of public transport options, including bus services, the Overground, underground and Thameslink railway services.

The KTPF area straddles the Midland Main Line and Thameslink railway line leading from Kentish Town to West Hampstead. There is also a chord connecting with the Gospel Oak to Barking Railway, which cuts through the area. Gospel Oak station is just to the northwest of Kentish Town and Kentish Town West station to the south. The site is near to Kentish Town railway and underground station, with other stations also close by. There are a number of bus routes on Kentish Town Road and Highgate Road. The area is surrounded by rail stations and bus routes and is, as such, very well connected. It could be made even better with improved walking and cycling routes.

The 2012 PTAL rating⁹ for the area ranges from 2-5, with the lower rating representing the western part of the site, furthest from Kentish Town station.

Kentish Town Road is highly trafficked with conflicting traffic modes (pedestrian, cyclists and motor vehicles), causing congestion, poor air quality and collisions. There are also a lack of cycle facilities and narrow footways in places. The trend of the Borough as a whole is moving towards the increased use of active travel (walking and cycling) followed by public transport, which is considered possible in Kentish Town, given the aforementioned transport links. The need to consider active travel first is particularly prevalent when public transport services can come under stress at peak periods.

It should also be considered how the proposed development can help to address the transport saturation point. The development could provide a neighbourhood where more people can work and live and therefore the requirement to travel can be limited.

5.4.2. Requirement

Transport officers at the London Borough of Camden cite cycle infrastructure, improved footways, step free access at rail stations, electric vehicle charge points, cycle parking and safe crossings as infrastructure items needed to support the proposed growth.

The lack of step free access at the stations is however a major barrier to accessibility, particularly for older people and those with a disability. This prevents tube and train travel being an accessible transport option for all members of the community. It also impacts on connectivity e.g.: if people travel by a bus to Kentish Town station, they may not be able to continue their journey to destinations served by the rail and tube stations.

⁹ <u>http://content.tfl.gov.uk/camden-2012-ptals.pdf</u>

Camden Borough has been identified as an Air Quality Management Area (AQMA). The Local Plan states that 'improving the Borough's air quality is therefore an urgent issue and reducing the use of motor vehicles will significantly help in achieving this goal.'

Local Plan Policy T1 requires, where appropriate, development to provide for interchanges between different modes of transport, convenient for all users.

As mentioned previously, Camden Local Plan policy prescribes for development to be car free. However, as part of the KTPF proposals, is the provision of an increase in commercial floorspace. Delivery requirements associated with both car free residential developments and an increase in commercial floorspace require consideration through the design approach. The Council will consider essential operational vehicle parking for commercial users, which will restrict car parking as this is non-essential (excluding disabled users).

The Camden Transport Strategy¹⁰ recognises the importance of transport for growth, especially prioritising sustainable, active, healthy travel to ensure growth is sustainable and does not exacerbate the existing significant transport challenges of congestion, pollution, carbon emissions, severance, road danger and inactivity.

The Transport Strategy¹⁰ prioritises Kentish Town as an area-wide Healthy Streets project (area-based scheme) in the first three-year programme of investment (2019-2022), although in reality, as planning applications for either Murphys or Regis Road are yet to be submitted, work will not commence until the second year (or later), 2020-2021. The area subject to the Healthy Streets area-based scheme incorporates Kentish Town Road (between Castle Road in the south and Fortress Road/ Highgate Road in the north) and the hinterland of residential streets that feed into the high street area. At this point, and until designs for the scheme start to be drawn up, it cannot be confirmed what infrastructure will be provided. However, it will follow the principles for healthy streets as included in the TfL guidance and Mayor's Transport Strategy¹¹.

5.4.3. Delivery Issues

With the focus on creating car-free development¹², public and active transport options, these measures need investigating further whilst also acknowledging the limitations that exist. For example, the Northern Line part of the tube network is already expected to be at maximum capacity by 2031 (Figure 3), even with planned investments.

It is understood that step free access at Kentish Town is not prioritised on TfL's contributions list and therefore would require a significant input from CIL payments if it

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https://www.camden.gov.uk/documents/20142/4470853/Appendix+A_Camden+Transport+Strategy_FinalVer sion_150219.pdf/427bda89-96d2-f42e-d5c4-4ffed0544645

¹¹ <u>https://www.london.gov.uk/sites/default/files/mayors-transport-strategy-2018.pdf</u>

¹² The Council's position is to limit all non-essential parking but policies do allow for exceptions based on the operational needs of individual businesses

were to go ahead. A question answered by The Mayor¹³ in August 2017 suggested that the installation of lifts at Kentish Town Tube would cost approximately £40million.



Figure 3 Tube network overcrowding in Camden by 2031 (weekday peak AM hour, includes planning investment)¹⁴

5.4.4. Cost and Timing

The costs of proposed infrastructure are not known at this time. However, it is clear that funding will need to come from the LIP programme, CIL and S106 contributions.

The TfL Business Plan for 2019-2024¹⁵ does not include the implementation for stepfree access at Kentish Town. Therefore, funding will have to be sourced elsewhere for this project, if required.

¹³ <u>https://www.london.gov.uk/questions/2017/3273</u>

¹⁴ <u>https://consultations.wearecamden.org/supporting-communities/camden-transport-</u>

strategy/supporting_documents/Draft%20Camden%20Transport%20Strategy_Main%20Document_FV_19101 8%20FOR%20CONSULTATION.pdf

¹⁵ <u>http://content.tfl.gov.uk/tfl-business-plan-2019-24.pdf</u>

6. Social, Community and Green Infrastructure

This section of the study considers the social, community and green infrastructure requirements, as a result of the development proposed for the KTPF. The infrastructure covered is:

- Health
- Education
- Community Facilities
- Allotments
- Open Space
- Emergency Services

6.1. Health

6.1.1. Context

There are currently a number of health centres in close proximity to Kentish Town, including Parliament Hill Medical Centre, Queens Crescent Practice and Caversham Group Practice.

6.1.2. Requirements

Based on the same GP/patient ratio assumed in the IDP Update 2015 of 1,700 patients per GP, the midpoint population that the range of housing will support (7,084 people) creates a theoretical need for just over 4 GPs. This is unlikely to be sufficient for a new medical practice, particularly given the proximity of the area to two large, existing practices.

6.1.3. Costs and timings of delivery

Given that there will be theoretical need for 4 GPs, which is an insufficient number to generate the provision of a new GP surgery, it is difficult to determine costs at this time. It may be likely that an extension to existing health hubs will be provided.

To understand a cost estimate for this it is useful to look at recent projects. A recent brand new medical centre is currently being built to the north of South Woodham Ferrers, Essex. This facility will serve the current needs of the town (population circa 16,000), plus the need generated from a new urban extension (approximately 1,000 homes). This is a greenfield site so the context is different, but it is still useful for comparison. Research into the size of the new Medical Centre currently being constructed in South Woodham Ferrers (Essex)¹⁶ would suggest that a modern

¹⁶ 14/00830/FUL <u>https://publicaccess.chelmsford.gov.uk/online-applications/search.do</u>

consulting room measures approximately $16m^2$. Estimates included in SPONS¹⁷ suggest that a health centre or group practice centre costs in the region of £1,425 – £1,775 per m^2 . Therefore if we assume that each required GP will require one consulting room, there would be an associated cost for extensions of £25,600 per GP (plus any additional circulation / reception / waiting space that may also be required).

6.2. Education

6.2.1. Context

There are three nursery schools to the north east of the KTPF and two to the south east.

There are a number of primary schools around the KTPF, including Carlton Primary School, directly to the west and St Patricks Catholic School, directly to the south. Eleanor Palmer, Gospel Oak and Kentish Town Church of England Primary Schools are also nearby. There is also a primary school for physically disabled children on the eastern side of Kentish Town Road.

There is one secondary school in Chalk Farm (Haverstock) and four schools to the north of the KTPF area. These are William Ellis (boys only), Parliament Hill (girls only), La Sainte Union (girls only) and Acland Burghley (co-educational). Sixth form provision for these schools is provided through LaSWAP¹⁸.

There is an adult education college towards Hampstead Heath, at William Ellis School Language Centre.

6.2.2. Requirements

Early Years and Childcare

Based on the population projections, it is expected that there would be an additional 644 0-3 year olds within the KTPF.

Primary Education

The latest Camden Borough school places planning analysis 2018, using the 2018 GLA school roll forecast to 2027/28, anticipates that there should be sufficient capacity in the schools to accommodate the primary school needs arising from the growth in the Local Plan. Indeed, Planning Area PA2 in the far north-east of the Borough (Figure 4) which includes Kentish Town could potentially see the highest surplus capacity, up to 2.3FE by 2027/28, using GLA data from 2018. The LB Camden Supporting People Directorate has reported that the two primary schools serving Kentish Town both have surplus capacity.

Given that phasing, development density, and child yield has not yet been set, it is difficult to fully anticipate the impacts on schools at this stage. However, due to the rising surplus

¹⁷ Spon's Architects' and Builders' Price Book 2018

¹⁸ https://laswap.camden.sch.uk/why-laswap/sixth-form-of-choice/

from primary schools following the actual registered birth fall from 2013, it is anticipated that primary school places arising from the planned growth in the Kentish Town Planning Framework could largely be accommodated within existing schools. Although, it should be noted that new development may represent an opportunity for remodelling of existing provision to reflect changing local needs.

Secondary Education

Similarly to with primary school requirements, given that phasing, development density, and child yield has not yet been set, it is difficult to fully anticipate impacts on schools at this stage. However, as a result of the rising surplus from secondary schools expected from 2023/24, it is anticipated that secondary school places arising from the planned growth in the Kentish Town Planning Framework could largely be accommodated within existing schools. However, it should be noted that new development may represent an opportunity for remodelling of existing provision to reflect changing local needs. At secondary level (from Year 7), the Council anticipates surplus to increase from 2023/24 based on current 2018 data.

Given the low actual registered births, the Council anticipate the rising surplus impacting primary at the present time to roll through to secondary. This is being monitored very closely.

Rising surplus is not just a Camden issue, but also London wide following the drop in ONS actual registered births. Many authorities are responding by capping school admission numbers. Camden is reviewing school provision, in addition to annual school places planning.



Figure 4 Primary school place planning areas¹⁹

¹⁹ Source: LB Camden (2018) Annual School Places Planning Report

Further Education

As part of the IDP Update 2015 it was assumed that 81% of Camden residents undertaking post-16 education were engaged in sixth form education whilst 19% were engaged in learning at FE colleges or work-based learning (WBL) providers. It is not possible to calculate at this time what the additional number of 16-19 year old would be as an outcome of the proposed development. However, it is possible to estimate the number of 16-17 year olds and this can be used as a 'ball-park' estimate. This is shown in Table 9 below. This shows an overall need for 201 FE places for 16-17 year olds only.

Table 9 Gross demand for FE places

Average number of 16- 17 year olds from each option		Gross college/WBL places required
201	163	38

The catchment of FE provision is wide. FE colleges include, for example, specialist colleges attracting learners from across Greater London and further afield. Similarly, many vocational learner residents within Kentish Town will travel to other colleges located in other Boroughs. Information gathered to inform the IDP 2015 Update showed that 90% of Camden residents attending sixth forms do so within the Borough. However, of those attending FE colleges only 30% attend college within LB Camden. Furthermore only 5% of work-based learners are based within the Borough. Applying these same leakage rates to growth in Kentish Town gives an estimate for the net demand for FE places shown in Table 10. This shows a net need for 158 FE places for 16-17 year olds only.

Table 10 Net demand for FE places

	•	Average number of 16-17 year olds from each option requiring		
required	required	provision within the borough		
147	11	158		

Adult Learning

The IDP Update 2015 used the same standards with regards to Adult Learning (AL) services as used in 2009. The following standards have therefore been applied:

- 10% of LB Camden's working age (16-64 years old) population will require AL provision; and
- A conversion rate of 9.4 learners per FTE should be applied to calculate demand for FTE places.

Table 11 shows that 55 additional AL places would be required by 2031 to address the growth in Kentish Town.

Table 11 Demand	for Adult Loarning places
Tuble IT Demunu	for Adult Learning places

		Average number of 16- 64 year olds	•	FTE places
Adult Places	Learning	5,193.5	519.35	55.25

Learners are likely to be prepared to travel outside of Kentish Town and across the Borough, particularly for specialist classes. Therefore whilst demand for AL services has been identified, this does not mean that this provision will be located in Kentish Town.

6.3. Community Facilities

6.3.1. Context

Indoor Sports

Camden's leisure centres are part of a wider community physical activity system in Camden, in which the Council's Sport and Physical Activity Service (SPA) in-house team plays a significant enabling role in the delivery of targeted interventions. The enabling function involves supporting development of a community led physical activity offer. Targeted interventions for complex needs such as people with long term medical conditions and young people not in education, employment or training, are delivered by the team or, where possible, community partners. Other directly delivered services target people that face multiple barriers to physical activity, including women and girls, disabled residents and certain minority ethnic groups.

Improved health and wellbeing for independent living is the primary measure of effectiveness for leisure centres. Increasing participation in physical activity and other health improving activities (including mental, dietary, and social health) for a 'whole health' approach will be a key focus for new provision.

The area is served by the Talacre Community Sports Centre which has a sports hall capable of being used for a range of indoor sporting activities, such as basketball, badminton and volleyball. This facility is located to the south of the KTPF area and is run by GLL, a not for profit, charitable social enterprise.

Kentish Town Sports Centre is also located to the south of the area and is also run by GLL. Within the sports centre, there are three swimming pools, a gym and a group cycle zone. In addition, the centre offers fitness classes.

In 2018, research was undertaken to inform a future service design and procurement strategy for the Council's leisure services. A physical activity needs assessment (PANA) explored barriers that inactive citizens face to being physically active in Camden. The Council commissioned a specialist company in citizen-led service design to use the findings of PANA to guide a discovery exercise. It concluded that despite being valued by Camden's diverse population and meeting significant need, there are some citizens not using the borough's leisure centres. The Council's intention therefore is that in the future, the local leisure centres will proactively reach out more into communities and develop relationships with organisations (large and small, community and others) that provide access to inactive residents. Developing alternative local 'door step' physical activity opportunities is one way of achieving this.

Outdoor Sports

The Talacre Community Sports Centre has one 7-a-side floodlit artificial grass pitch. Immediately to the north-west of the area is Parliament Fields which has grass football pitches.

Also at Parliament Hill are a range of other outdoor sports facilities including a cricket pitch, athletics track, tennis courts and outdoor swimming facility (lido).

6.3.2. Requirements

Based on current provision, as outlined above, it is understood that there is no additional need for outdoor sports facilities.

Children's Play and Youth Facilities

Within Camden, the application of the GLA recommended standard of $10m^2$ per child in a new development is generally seen as unrealistic and unobtainable. However, using the mid-point of growth creates the following needs (Table 12). It is important to understand what the development ought to provide, so that any currently considered level of surplus can be monitored:

	Option 1: Housing mix of 50% affordable	Option 1: Housing mix of 35% affordable	Option 2: Housing mix of 50% affordable	Option 2: Housing mix of 35% affordable
Total children (age 0-17)	1,910	1,616	2,480	2,097
Play space requirements (m ²)	19,100	16,160	24,800	20,970

Table 12 Child play space and youth provision needs arising from growth in Kentish Town

This shows that the development options will create a need for between 16,160m² and 24,800m² of children's play space/youth provision, an average of 20,257.5m².

Camden Planning Guidance suggests a requirement of 6.5sqm of play space per person, deviating from the 10sqm requirement by the GLA. This is because Camden already require 9sqm of open space per resident, and this includes an allowance for play provision. This would result in an average requirement of 13,168m².

It is likely to be considered unrealistic for play space provision of this amount to be delivered on an urban regeneration scheme of this size. It may instead be preferable to consider those types of open and play space that are underrepresented and consider improving access to or provision of those. Government guidance also suggests that development proposals 'identify routes to the proposed play areas to support planning applications and ensure play spaces are accessible to all'²⁰.

Libraries

Kentish Town library is to the east of the site, located on Kentish Town Road, and is open Monday to Saturday. Confirmation will be required, but it might be assumed that the proximity of Kentish Town library to the KTPF negates the need for additional library facilities. Similarly, because there are no distance standards relating to libraries, it cannot be determined whether there are any existing deficiencies.

However, it may be important that facilities similar to those in a library, such as computers and desks, can be provided in other facilities, to ensure sufficient provision is available at peak times, such as when students are studying for exams. Therefore, wider community facilities will be important when considering how to meet potential fluctuating demand.

Community Centres

Kentish Town Community Centre is located just under 1km to the south east of the KTPF and opened over 12 years ago. It hosts a range of classes as well as offering a food bank service. There is a studio which hosts dance groups and yoga classes as well as a small room, used for small group sessions or meetings. Other sessions are run from the centre, including Spanish Lessons, an Older People's Club and a Refugee and Befriending Project.

Also in Kentish Town is the NW5 Project which provides facilities and services for young people, including an after school club and apprenticeships. A range of activities are hosted at the parish halls at Our Lady, Help of Christians Catholic Church, including dance classes, a nursery and martial arts.

Greenwood Resource Centre in Kentish Town opened in February 2019. This is a new community resource centre for people with a range of care needs to access high-quality services that promote wellbeing, good quality of life and independence.

The IDP Update 2015 included the requirement of $0.2m^2$ of multi-purpose community space per bed space in a development. This standard was drawn from Camden Planning Guidance on Planning Obligations (CPG8), which has since been superseded, although the standard has not been retained. However, this is still considered to represent a reasonable standard to apply. For the purposes of this calculation $0.2m^2$ has been multiplied by the mid-point population, resulting in a need of 1,416.8m² of community space.

Whilst this scale of space is a helpful guide to the level of new provision, the nature of community space provision is such that often improvements to existing spaces or sharing

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https://www.london.gov.uk/sites/default/files/osd30 shaping neighbourhoods play and informal recreation n spg high res 7.pdf

of other spaces not previously used by the community provides a more effective offer. In particular, reconfiguration of existing space can be very effective at increasing usage as this enables more flexible use for a wider variety of user at different times of the day.

Since 2016, contributions from CIL towards community facilities across the borough have been used to improve Holly Lodge Community Centre, Dragon Hall and Hampstead Community Centre. Such contributions have ranged from £7,000 for basic improvements to £50,000 for more substantial renovations to the facilities within a community building. Over the same period, contributions totalling £2.96m have been secured through S106 to make improvements to community facilities across the borough. It may therefore be more appropriate to secure contributions towards improvements to Kentish Town Community Centre as a way of addressing community needs.

6.3.3. Cost and Timing of Delivery

For children's play and youth facilities, in light of the need to better understand which types of open and play space are underprovided, it is difficult to assign a cost to this provision. Certainly the scale of space required based on the standards (20,257.5m² of new space) is unrealistic to provide in Kentish Town. As a guide, in the financial years 2016/17 and 2017/18, a total of £2.26m was spent by the Council on parks and open space improvements. This included provision of green gyms and play equipment.

Exact costs of community facilities are unknown at this time. However, the IDP Update 2015 looked at the Community Investment Programme (CIP) and found that new-build community facilities were expected to cost approximately £2m.

As stated above, it may be more appropriate to secure contributions towards improvements to the existing community facilities in Kentish Town. For the purposes of this assessment, however, this figure is used as an indicative cost for community facilities.

Costs have not been included for indoor or outdoor open space, nor libraries, as it is expected that current provision is sufficient.

6.4. Allotments

6.4.1. Context

Camden Planning Guidance on Public Open Space sets out that allotments should be provided within new developments where opportunities arise.

New developments could feature food growing opportunities in a way that brings together the wider community, through the provision of community gardens for example. Given the demand on space, opportunities for communal growing spaces at roof level as well as at street level could be explored.

In addition to allotments, fruit trees and other edible plants could be incorporated into planting schemes in all civic areas such as footpaths and squares. The Heath Line, a linear corridor through the Kentish Town framework area, would be an appropriate place to locate edible planting.

6.4.2. Requirements

The requirement for allotments in the Kentish Town framework area is based on the formula set out in the Camden Planning Guidance on Open Space. This sets out the amount of new allotment / food growing space required in order to provide for new people living in the Borough as a result of new development. The specified requirement is 0.02ha per 1,000 population.

Assuming an additional housing requirement of 2,585, resulting in a new population of 7,084, the requisite allotment area would be 1,417m².

Based on an average plot size of 0.01ha it is assessed that additional demand for a net total of 14 allotment plots (after rounding) will result in a requirement for approximately 0.14ha of allotment land to be brought into use.

6.4.3. Delivery Issues

In densely built areas it is important to be able to deliver innovative solutions to the provision of open space, including allotments, such as on roofs on buildings.

6.4.4. Costs and timings of delivery

Costs for allotments are not known at this stage. New allotments or food growing opportunities should be provided in step with development.

However, one estimate²¹ states that there is a capital cost of $\pm 2,000$ per $250m^2$ of allotments. As shown above, there is a requirement for 0.14ha of allotment space, or $1400m^2$, resulting in a cost of $\pm 11,200$.

²¹ <u>https://www.local.gov.uk/sites/default/files/documents/place-grow-supplementary--736.pdf</u>
Case Study

Nourish Food and Community Hub, Hammersmith and Fulham

The London Borough of Hammersmith and Fulham was awarded £1.1 million as part of the Greater London Authorities 'Good Growth Fund' to fund 'Nourish', the main objectives of which are to develop and implement long term and wide ranging improvements to public spaces, encouraging healthy lifestyles and building local skills and employability. Hammersmith and Fulham is working with Groundwork and UK Harvest to deliver the project across the White City and Edward Woods Estates.

The project includes green space improvements, a new community food hub and affordable workspace across the two estates in Hammersmith & Fulham. The project will use green infrastructure to improve the environmental performance of the public realm, creating resilient, climate adapting spaces, providing innovative flood risk management and improved air quality. Residents will be actively involved in the design and UK Harvest will engage with residents and raise awareness about the environmental impact of food waste.

The project is an example of how retro-fitting open space on housing estates in London can be an innovative solution to providing green space and improving the Cities resilience to climate change. It is expected that the cumulative impact will be improved air quality, increased biodiversity and social cohesion.

SHEDx, Royal Borough Kingston upon Thames

The project involves working with local communities to create a community growing hub in Tolworth including mobile green sheds to act as meanwhile uses for local greening, discussion, problem solving and storytelling, and creation of 'natural paths' to create a 'Bee Triangle' between Tolworth, Surbiton and New Malden which will encourage pollinators through the planting of herbs and flowers.

It is a community-led regeneration project designed to encourage communities to reimagine green space through opportunities to get involved in local projects and creative opportunities. Funding was provided by the 'Good Growth Fund' as well as the Heritage Lottery Fund and crowd funding.

6.5. Open Space

6.5.1. Context

Camden's open space, sport and recreation study update 2014 provides an assessment of open space, sport and recreation provision and demand in the borough. The study noted increasing pressure on existing open space in line with changes in demand and supply. The study carried out an analysis of different types of urban green space: quantity, quality and accessibility through site surveys.

Within the KTPF area itself there is no open space, owing to the current employment nature of the site. However, within close proximity are Hampstead Heath, Talacre Gardens, Rochester Terrace Gardens and Cantelowes Gardens. The 2014 Open Space, Sport and Recreation Study²² did not identify any specific deficiencies in respect of access to either public parks or other types of open space in Kentish Town. Moreover, whilst the study rated all open spaces serving the area as either 'fair' or 'good', they were all assessed as being of low value in terms of their richness and importance the community.

6.5.2. Requirements

The requirement for open space in the Kentish Town framework area are based on the formula set out in the Camden Planning Guidance on Open Space. This sets out the amount of new open space required in order to provide for new people living in the Borough as a result of new development. This is reproduced in Table 13. This provides a basis for calculating the potential needs for new open space to provide for new development within the Borough and within the Framework area.

Assuming an additional housing requirement of 2,585, resulting in a new population of 7,084, the requisite public open space would be 63,756m². These are broad calculations and will need to refined further through the design and development process.

The KTPF identifies that 76,000m² of new commercial floor space will be provided within the Kentish Town Area. Those employed in the Borough also generate a need for public open space. Assuming these jobs are within use class B1a (professional services), the resultant Public Open Space requirement would be 4,686m². This calculation has not taken account of whether the employment is provided in forms of 1,000m² and above.

In total therefore the requirement for public open space would be $68,442m^2$. Although these items have not been costed in detail, if the charges of £200/m² for construction and £7 maintenance in the Camden Planning Guidance on Open Space were applied, the cost

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https://www.camden.gov.uk/documents/20142/15817034/CD2.5+Open+Space+Sport+Recreation+Study+201 4.pdf/4ce694bd-f292-b73f-d061-d0150ea3eb5a

of off-site provision of $68,442m^2$ of open space would be £13,688,400 capital and £479,094 maintenance.

Development Type	Formula		
Residential (11 dwellings	(9 m^2 per resident x number of additional dwellings x		
and above or over 1000 m ²	average residential occupancy for the ward where the		
GIA) [#]	development is located*) MULTIPLIED by the total cost of		
	providing public open space per sq m		
Commercial development	(0.74 m ² per worker x employment density of		
(over 1000 m ² B use floor	development*) MULTIPLIED by the total cost of providing		
space or over 1 Ha)	public open space per sq m		
Where public open space	(i) Calculate the total additional amount of public open		
is provided on-site or	space required using the standards above.		
nearby	(ii) Calculate the total additional amount of public open		
	space that will actually be delivered.		
	(iii) Adjust the residential or commercial requirement, e.g.		
	if 50% of the open space is to be provided on site, the		
	payment in lieu should be multiplied by 0.5.		
*The guidance provides or	*The guidance provides occupancy rates based on wards and employment density		

*The guidance provides occupancy rates based on wards and employment density information based on employment type.

[#]Student accommodation is also expected to fund open space in accordance with these quantities, however the student quantum is multiplied by 0.75 in recognition that students are not within the accommodation for the full year.

It is unlikely that this scale of provision of open space can be made in Kentish Town as part of the development of the Framework. The opportunities for the provision of open space, given the demands of other uses and the geography of the area, are limited. It will therefore be important that open space needs are addressed by improving the quality, value and accessibility of spaces that serve Kentish Town. As previously stated, the 2014 Open Space, Sport and Recreation Study identified that the open spaces serving Kentish Town were of low value but reasonably good quality. Low value spaces are spaces that are under-used by the communities they serve, so there is the capacity in these spaces to address needs, provided they create an offer that is value by people. Under these circumstances, it will be important to consider how best to increase the value of individual spaces through improvements, either directly to the space or to its accessibility. Proposals such as the Heath Line are an example of investment which it is expected will increase the value of a number of open spaces serving the area.

6.5.3. Case Study

Tower Hamlets Pocket Parks Programme

The London Borough of Tower Hamlets has produced a Pocket Parks Programme which will help to address the deficiency of parks and open spaces in the Borough. The programme provides a creative means of bringing neglected, poorly used spaces back into use. It also allows residents to be engaged and involved in improving small spaces in partnership with the Council.

By empowering local residents, community organisations or other strategic partners to take responsibility for identified open space, the financial burden on the Council is reduced and residents will become more engaged and involved with the upkeep and enjoyment of the pocket park.

The programme includes four pocket park projects, each expected to cost between £30k and £48k. Funding will come from Section 106 agreements. Ongoing maintenance will be provided by a variety of bodies including; TfL, the Council, a 'Friends of...' voluntary group and tenants. The four projects are:

- A12 Green Mile pocket park
- Ropewalk Gardens
- Marner Family and Community Space
- Chicksand

Roof Gardens- The Culpeper Pub

The Culpeper Pub in Aldgate utilises its rooftop space previously solely used for plant and machinery, for growing the food which is used in the restaurant and bar. Everything that is grown is harvested and consumed. The garden grows small vegetables, salad leaves and herbs as well as other fruit and root vegetables in the summer.

The pub also runs roof garden workshops on specific aspects of urban growing with the aim of helping people grow food and plants at home on private roof terraces and balconies. The garden is also often opened to the public with fire pits, a canopy and a grill.

King's Cross Redevelopment

As part of their redevelopment of King's Cross, and at a cost of approximately £2.5 million, the King's Cross Central Limited Partnership commissioned architects to dismantle and refurbish the 25m tall and 35 metre wide Gasholder No 8, which had been disused since 2001. It was re-built and re-opened in 2015 as a multi-use park, but mainly used for sitting and relaxing. Paths leading down to the towpath link it with Regent's Canal and Camley Street Natural Park, providing a network of open spaces in the area.



Source: ©http://cdn.ltstatic.com/2015/November/AL623480_942long.jpg

Further to Gasholder Park, the redevelopment of King's Cross as a whole has been built around a green framework, with 40% of the area given over to open, and green space, which provides much needed amenity space for workers, visitors and residents of the area. Over 400 trees are being planted and where possible walls and roofs are being greened. New streets and footpaths lead through parks and squares and these, along with the Regent's Canal, link the area with a wider network of green spaces in the area.

The re-development also includes the Global Generation Skip Garden - a community garden which moves around as King's Cross is redeveloped. Fruit, vegetables and flowers are grown in upcycled skips and most of the garden is built using left over building material from the site. It was built and is looked after by Global Generation, which works with young people and other volunteers.

It is noted that there are political and democratic sensitivities around the private management of public open space, and concerns have been raised about the inclusiveness and accountability of new open spaces in areas such as King's Cross. The Camden Planning Guidance on public open space²³ stresses the need for developers to provide Public Open Space Plans in support of planning applications that will result in an increased demand for public open space. Such plans should include details of how public open space will be incorporated into the proposed development and its intended function Where open space is proposed within the site, management Plans should also be submitted. These should provide an overall vision for the management of the space as well as maintenance regimes and, importantly, full details of the overall responsibility for the management of the space, including named contacts and contact details with arrangements in place for the council to be notified of any changes.

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https://www.camden.gov.uk/documents/20142/4833316/CPG+Public+open+space+March+2018.pdf/2abc1c9 b-9e2a-6f07-76be-d405f36a563b

6.6. Emergency Services

6.6.1. Context

Kentish Town Police Station is located within the southern part of the KTPF area. Within the Borough there are only two current police stations, Holborn and Kentish Town. There is also a police station in West Hampstead, but this does not offer a front counter service like the other two stations. The only station which provides full 24/7 front counter service is the Kentish Town police station. This station now operates as a single patrol base for the entire Borough accommodating all Emergency Response police officers for the Borough.

The Royal Free Hospital is approximately 1.5km to the west of the KTPF area. Kentish Town Fire Station is just to the north of the KTPF area.

There is therefore good proximity to emergency services, but access may become problematic owing to the segregation of the area due to the railway lines.

6.6.2. Requirements

The Metropolitan Police Service (MPS) has been clear that there is an operational need to retain Kentish Town Police Station and that this should preferably be in its existing location and form. No such feedback has been provided by the Fire or Ambulance services.

7. Review of other potential infrastructure interventions

7.1. Items identified through Kentish Town Planning Framework

Eight potential physical infrastructure items were included in the KTPF consultation document, October 2018²⁴. These items and potential costs, drawing on examples from elsewhere, are presented in this section. The items are labelled in Figure 5 and discussed at Table 14.



Figure 5 Potential infrastructure interventions

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https://www.camden.gov.uk/documents/20142/3797089/Kentish+Town+draft+planning+framework+October +2018.pdf/d51891a1-8bec-9de7-f8b5-a7d07817d752

ltem number	Infrastructure	Description	Commentary
on Figure 5	project/ item		
1	Western bridge across the Midland Mainline rail lines.	A new north-south bridge across the Midland Mainline, potentially hung from the existing bridge structure in this area.	A new bridge is required in this area to connect The Regis Road Site and the Murphy Site and deliver the Makers Lane route. Further design investigation required to explore options for an independent structure or one that utilises the existing bridge in the area.
2	Central bridge across the Midland Mainline rail lines.	A new north-south bridge across the Midland Mainline in the centre of the Regis Road Site.	A new bridge could be located here to support permeability between the two sites. There is no existing infrastructure to connect the bridge to.
3	Hang pedestrian/ cycle walkway off the Midland Mainline boundary wall	A new pedestrian and cycle walkway that is hung from the existing Network Rail boundary wall to the rear of the properties on Highgate Road	A new bridge in this location would complete the Heath Line connection between Kentish Town and Hampstead Heath, improve access into the Murphy Site and relieve congestion on Highgate Road.
4	Cantilevered civic square at Kentish Town	A new square cantilevered over Midland Mainline from the existing bridge structure.	The proposal is part of the Kentish Town Planning Framework and would create a new significant public square for Kentish Town located on Kentish Town Road.
5	Kentish Town Underground station step free access	Step free access to London Underground	Policy GA of the Kentish Town Neighbourhood Plan supports step-free access at Kentish Town.

 Table 14 Infrastructure Items suggested through the Kentish Town Planning Framework Consultation 2018 (page 92)

		platforms at Kentish Town	TfL has carried out high- level investigation into installing lifts at Kentish Town which indicated that this would be very complex. Consequently, Kentish Town is not being considered as part of the £200 million five year programme.
6	Kentish Town Thameslink station step free access	Step free access to the Thameslink platforms at Kentish Town.	A potentially less complex and more viable option at Kentish Town is step free access to the Thameslink platforms. This would provide step free access to the wider Underground network via Kings Cross St Pancras
7	Gospel Oak eastern entrance	An eastern entrance to the station.	The Dartmouth Park consultation draft includes a project to improve Gospel Oak station by creating a new eastern access point.
8	Kentish Town Public Realm strategy	A public realm strategy to guide investment on the streets, public spaces and play areas that fall outside of the Regis Road and Murphy Sites.	To ensure a coordinated strategy for public realm covering parts of Kentish Town Road, Fortess Road, Highgate Road, Gordon House Road, Holmes Road and Spring Place along with other secondary routes within the area.

7.1.1. Bridges

Two bridges are included in the options above. A recent example in Croydon is useful to look at to understand costings. The bridge at East Croydon station is 100 metres long and weighs 700 tonnes. It was a prefabricated bridge, assembled on a site located next to the station. During the course of one day the bridge was inched across the railway into position. The bridge cost £20million and provides access to all six of the station platforms.

Since 2006, Network Rail has built over 200 bridges that provide 'Access for All', with an average cost of £3million²⁵. Costs in the range of £3m - £20m might be appropriate for consideration at Kentish Town, depending on the length and location of the bridge, and any structural works required.

Four bridges were included as part of the redevelopment of Stratford. The Town Centre Link is a particularly useful example for this study as it is a solely pedestrian bridge, which crosses multiple railway tracks. The Stratford Town Centre Link connects Westfield Shopping Centre with Stratford Train Station and beyond to other areas of East London. The bridge is 130 metres long and crosses eleven railway lines. The bridge was constructed off-site in three parts before being launched into place across the railway lines. The four bridges constructed in Stratford²⁶ as part of the regeneration of the area, came to a total of £44m. Whilst the exact cost of the Town Centre Link is not known, the total cost of the four bridges can be split four ways, to find that the average cost per bridge is £11m. This can be used as an estimated cost of the footbridge. This sits comfortably within the range mentioned above.

Regardless of the potential cost of a bridge, it is fundamental that discussions are held with Network Rail, who may have concerns with the airspace above the railway tracks for a bridge.

Indicative cost = £3million - £20million per bridge (median £11.5m)

7.1.2. Footbridge

A recent feasibility study²⁷ was undertaken for a footbridge in Guildford, Walnut Footbridge. This was to replace an existing footbridge, which is used as an essential link by non-motorised users and extends to approximately 27m long. The bridge would need to be designed in accordance with a range of design standards and guidance documents. Six design options were developed and assessed against a number of

²⁵ <u>https://www.railengineer.co.uk/2018/08/13/footbridges-of-the-future/</u>

²⁷ <u>http://www2.guildford.gov.uk/councilmeetings/documents/s5530/ltem%2008%202%20-%20Walnut%20Bridge%20Replacement%20Project%20-%20App%202%20-%20Feasibility%20Report%20May%202016.pdf</u>

factors including constructability and maintenance liability. This resulted in the preferred option being decided upon as a cable stayed bridge. The feasibility study found that the estimated cost would be between £2.7 and £3.4million and therefore a midpoint estimate of £3.05 million can be used. The project option for Kentish Town would need to be approximately double this length, but again, indicative costing is useful.

Indicative cost = £3.05million

7.1.3. Step free access to Thameslink and the Tube

As mentioned earlier in the study, The Mayor has previously answered a question posed in August 2017, in which he stated an estimated cost of £40million for the installation of lifts at Kentish Town station to provide step free access to the Tube. This is further supported by research into the costs of other step free access projects. A paper²⁸ published by TfL in 2012 stated that recent upgrades to Green Park station to retrofit step free access cost approximately £50m. Studies show that Kentish Town is approximately 24m from pavement to platform and Green Park is 26m. Therefore, it could, at a high level, be assumed that costs could be broadly similar.

A recent feasibility study was undertaken to assess the cost of four scenarios to provide step free access to West Hampstead Underground Station, to access the Jubilee Line. These scenarios varied in benefits but the costs ranged from £7m to £106m. It was confirmed there was no funding for West Hampstead within TfL's current business plan.

Costs for step-free access to Kentish Town Thameslink station is not clear at this time. However, earlier in 2019, £300m of funding was committed to 73 stations to make platforms accessible to all. It could be estimated that this would provide approximately £4m of funding for each station.

Indicative cost = £40+million

²⁸ <u>http://content.tfl.gov.uk/taking-forward-the-mts-accessibility-implementation-plan-march-2012.pdf</u>

7.1.4. Station Entrance

A recently completed example at Hampstead Heath London Overground station cost £2.2m to provide a new station entrance which was double the size of the one it replaced. However, costs will vary considerably dependent on the specification of design.

Indicative cost = £2.2million

7.1.5. Public Realm

The Mayor of London Opportunity Area Projects provide a good example where largely industrial areas have been transformed to create new residential developments. At Nine Elms, in Vauxhall, the preferred approach to public realm has an associated cost of £12.65million and is currently under construction. Whilst this is to support a development of 20,000 homes and 25,000 new jobs, it is useful to be able to use this as an example.

Another example, in Stoke-on-Trent, saw a £10m investment to make the area more friendly for pedestrian use²⁹. This included widening and replacing footpaths and introducing trees and benches.

Indicative cost = £11.3 million

7.1.6. Cantilever Public Square

It has not been possible to find a suitable, relevant example of a cantilevered public square that can be studied to ascertain an indicative cost. Therefore, it would be suggested that if this is something desired for the area, further structural and viability work is undertaken in order to find some costing information.

7.1.7. Total

When considering the total cost of the infrastructure items, it is broadly in the region of **£79.6m.** To note, this does not include the costings for the cantilever public square or step free access to Kentish Town Thameslink. This will need to be balanced against the anticipated income from CIL and the costs of the items identified in this Infrastructure Study for the KTPF.

²⁹ https://www.livingstreets.org.uk/media/3890/pedestrian-pound-2018.pdf

8. Funding, Costs and Priorities

8.1. Funding

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It is useful to understand potential opportunities to fund required infrastructure projects. Camden adopted a Community Infrastructure Levy in 2015 and as such all liable development will be required to pay the CIL. However, there will still be Section 106 applicable to fund certain types of infrastructure as well as CIL. The Local Plan Viability Study³⁰ estimated an allowance of £2,000 per unit for S106.

In Kentish Town, it is helpful to note that, the northern part of the site has a tariff of £500/m² (Zone C), whereas the southern part of the site is liable to pay £250/m² (Zone B). Whilst it is possible that the CIL tariffs will be updated ahead of a planning permission for the KTPF being granted, it is useful to understand what the potential CIL income could be. In addition to this, developers are also required to pay the Mayoral CIL, which equates to £50/m². Estimates of potential CIL payments are set out in Table 15 and based on the following assumptions:

- 55% of the development will be accommodated in the southern part of the site, at $\pm 250/m^2$.
- 45% of the development will be accommodated in the northern part of the site, at £500/m².
- Affordable housing is not CIL liable. An allowance has been made for affordable housing at 35% or 50%.
- An average unit size has been assumed at 67 m².
- Mayoral CIL of £50 m² will be required for each liable property, but this is in addition to the figures below.
- An assumed total of 15,000 m² of B1a floorspace has been added to each of the options.
- B1a has a CIL tariff of £25/m²

https://www.camden.gov.uk/documents/20142/15759442/Camden+Local+Plan+Viability+Study+FINAL+REPO RT+030216.pdf/c46c8c61-1851-d561-2c42-4bac02d89403

Table 15 Potential CIL income for Kentish Town

Option	Total units	CIL Zone B Market Housing	CIL Zone C Market Housing	Market Floorspace (m²)	CIL income for residential	CIL income for B1a	Total CIL
1a	2,250	619	506	75,375	£27,323,437.50	£375,000.00	£27,698,437.50
1b	2,250	804	658	97,987	£35,520,468.75	£375,000.00	£35,895,468.75
2a	2,920	803	657	97,820	£35,459,750.00	£375,000.00	£35,834,750.00
2b	2,920	1,044	854	127,166	£46,097,675.00	£375,000.00	£46,472,675.00

25% of the Camden CIL will be allocated locally by ward councillors. The spending process is guided by Local CIL Priority Lists for each ward which have been developed by members in consultation with local communities. The list also takes into account the priorities identified in any made Neighbourhood Plans, of which there are two that overlap partially with the KTPF area (Kentish Town and Dartmouth Park). The Council has made it clear that local CIL will be used towards appropriate local infrastructure identified in planning frameworks. Table 16 below shows the split for the Neighbourhood portion of the CIL and the resultant CIL pot for strategic infrastructure.

Table 16 Neighbourhood and Strategic CIL

Option	Neighbourhood	Remaining CIL pot for
	Portion of CIL	strategic infrastructure
1a	£6,924,609.38	£20,773,828.13
1b	£8,973,867.19	£26,921,601.56
2a	£8,958,687.50	£26,876,062.50
2b	£11,618,168.75	£34,854,506.25

The proposed scale of development in the KTPF area could generate between approximately £21- £35million in CIL returns for strategic infrastructure.

8.2. Costs and Priorities

It is useful to identify whether infrastructure items are critical, necessary or important to the delivery of a development. This categorisation is based upon:

- Critical: Delivery of the identified infrastructure is critical and without which development cannot commence (e.g.: some transport and utility infrastructure).
- Necessary: The identified infrastructure is necessary to support new development, but the precise timing and phasing is less critical and development may be able to commence ahead of its provision (e.g.: schools, green infrastructure and health care).
- Important: Delivery of the identified infrastructure is important in order to help build sustainable communities, but timing and phasing is not critical over the plan period (e.g.: libraries and youth provision).

It is important to note that some of the infrastructure items identified through section 5 and 6 of this study are required either as (a) being integral to development, such as provision of utility connections and supplies, or (b) are needed to satisfy the Local Plan policy position, for example, provision of different green space types. The categorisation of these infrastructure items will vary, but all should be delivered at some point (though accepting that, as a result of scheme viability, some policy requirements may change, e.g.: on-site provision of open space). However, all should be factored into the development of the scheme and testing of viability and phasing.

Over and above these are a number of infrastructure items that are not essential to the development of the site, but which could enhance the quality of the development, and thus quality of life. A range of costs for these have been provided. It is the for the Council, through further development of the masterplan and assessment of the impact of these, or combinations of items, on the viability of any development, to decide which should be progressed.

The Council may consider that delivery of some of the items might be more feasible in the long-term: in such cases the layout of development could be structured to allow for incorporation of such items in the longer term without precluding change in the short-term, e.g.: the street layout might be structured to allow for a bridge connection to be provided in the most appropriate place at a later date. Those infrastructure items which are 'over and above' the requirements of the site include those within the Kentish Town Planning Framework, Envac style waste collection facilities and incorporation of a Decentralised Energy Network. The list of all items and how they are categorised is shown in Table 17.

Table 17 Categorisation of Infrastructure Items

Infrastructure Item	Source	Categorisation		
Items required through policy (Essential)				
Water	Required for development Critical			
Waste	Required for development	Critical		
Energy	Required for development	Critical		
Transport	Required for development	Critical and Necessary		
Health	Policy Requirement	Necessary		
Education	Policy Requirement	Necessary		
Community facilities	Policy Requirement	Important		
Allotments	Policy Requirement	Important		
Open Space	Policy Requirement	Necessary		
Other items identified throu	gh this study			
Alternative approaches to	Identified through	Important		
waste (e.g.: Envac)	Infrastructure Study			
Alternative approaches to	Identified through	Important		
Energy	Infrastructure Study			
Other Items suggested as pa	art of the KTPF consultation do	ocument 2018		
Western bridge across the	Identified through KTPF	Important		
Midland Mainline rail lines.				
Central bridge across the	Identified through KTPF	Important		
Midland Mainline rail lines.				
Cantilevered civic square	Identified through KTPF	Important		
at Kentish Town				
Kentish Town Public Realm	Identified through KTPF	Important		
strategy				
Hang pedestrian/ cycle	Identified through KTPF	Important		
walkway off the Midland				
Mainline boundary wall				
Kentish Town	Identified through KTPF	Important		
Underground station step				
free access				
Kentish Town Thameslink	Identified through KTPF	Important		
station step free access				
Gospel Oak eastern	Identified through KTPF	Important		
entrance				

Costs for infrastructure items 'over and above' those needed for development or forming a policy requirement are listed Table 18.

Table 18 Costing of additional Infrastructure Items

Infrastructure Item	Description	Estimated Cost	Categorisation
Items identified throu	gh this study		
Waste	Provision of an Envac-style facility	£8m	Important
Energy	Decentralised Energy Network	£12.9m (£5,000 per dwelling)	Important
Sub- Total Cost		£20.9m	
Items suggested as pa	art of the KTPF consultation document 2018		
Public realm	Western bridge across the Midland Mainline rail lines.	£3-20m	Important
	Central bridge across the Midland Mainline rail lines.	£3-20m	Important
	Cantilevered civic square at Kentish Town	Unknown	Important
	Kentish Town Public Realm strategy	£11.3m	Important
Transport	Hang pedestrian/ cycle walkway off the Midland Mainline boundary wall	£3.05m	Important
	Kentish Town Underground station step free access	£40m	Important
	Kentish Town Thameslink station step free	Unknown	Important
	access		
	Gospel Oak eastern entrance	£2.2m	Important
Sub-Total Cost	Sub-Total Cost		
Total cost		£100.5m	

The estimated cost of those infrastructure items considered to be 'over and above' those needed for development or forming a policy requirement is estimated to be in the region of £100m (though the cost of some items remain unknown and could increase this figure).

Compared to the available CIL that would be generated by the scheme (around £21-£35m after the Neighbourhood Portion has been accounted for) there is a gap in funding (see Table 16). So decisions and choices need to be made as to which of the items should be progressed – this may include some viability testing and cost benefit analysis of the various items.

9. Conclusion

The study gives indicative costs for the infrastructure requirements detailed in this study. These costs can be further refined with ongoing engagement with stakeholders and with more certainty over options, particularly those identified through the KTPF Consultation document 2018.

This study identifies those infrastructure items which service providers have indicated are a necessary requirement, without which development cannot happen. These are therefore the priority and have been identified as critical.

Beyond that there are a series of infrastructure items that are important for the quality of place and quality of life. These are less time dependant in terms of being able to develop the site but are equally important in terms of contributing to the place making agenda.

It is unlikely that the quantum of development and the funding generated from this will be sufficient to contribute towards the delivery of all items. It is thus for the Council, through the ongoing masterplanning exercise, to determine which are considered more important and should therefore be prioritised.

The Council may also wish to consider any other potential infrastructure items, which can contribute to the place making of the area. These, along with the items explored at Section 7 in this study, will need to be further considered through development viability testing.

It is suggested that viability testing of the proposed scheme and likely costs is undertaken to help identify what the scheme might reasonably be able to deliver.