1/15/2014

APPLICATION FOR PLANNING PERMISSION

DESIGN, ACCESS, HERITAGE AND SUPPORTING STATEMENT

BT Communication Tower, 60 Cleveland Street, London W1T 4JZ | Nissa Shahid at PHA Communications Ltd.

Foreword

The following Design and Access Statement is provided in conjunction with the Supplementary Information, drawings and supporting material that was submitted with this planning application. It is provided by PHA Communications Ltd. to act as a supporting statement for the planning application of the installation of 4 microwave dishes on the roof of BT Tower.

It has been compiled in accordance with the code of Best Practise on Mobile Phone Network Development and published Government guidance; this proposal was drawn up in regard to the design and heritage component of the application.

This statement aims to establish the impact that the proposed development will actually have within the site context and provide the necessary documentation required for this application to go through.

TABLE OF CONTENTS

PHA Communications Ltd.
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Harpenden
Hertfordshire
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1. Introduction

1.1 This statement has been prepared by PHA Communication Ltd. on behalf of World Class Wireless (WCW) to support the application to install and confirm the change of 4 microwave transmission dishes at the BT Communication Tower.

1.2 This application has been completed under the Development Management Procedure (2010) and the Planning (Listed Building and Conservation Areas) Act 1990 to provide site and policy context, constraints, technicalities, and possible future impacts.

1.3 The aim of this statement is to provide further information for the applications made on the 16/01//2013, amended on the 16/05/2013 – it will assess the significance of the proposed changes to the listed asset, (in this case the BT Tower), and the impact of the location and design in accordance to planning heritage law and requirement.

1.4 This statement is structured as follows, in accordance to the assessment criteria as set by the GDPO;

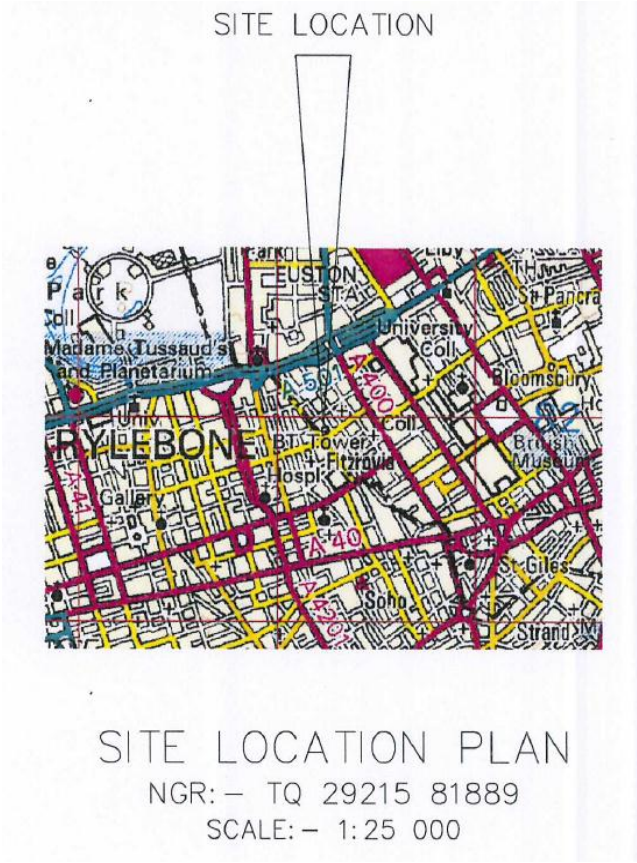
Fig 1.1 – Document contents

2. Context

2.1 The location is characterised by its high-density, primarily commercial surroundings.

2.2 The site is located at 60 Cleveland Street, London; within the London Borough of Camden. The tower itself is listed, however the site itself is not in a conservations area and there are no widely known planning constraints though some buildings nearby are listed.

2.3 This building is listed under the Planning (Listed Building and Conservation Areas) Act 1990 as amended for its special architectural or historic interest. Originally it has been known as the Museum Radio Tower, subsequently the Post Office Tower and Telecom Tower. The telecommunications and servicing equipment is not included in the listing.



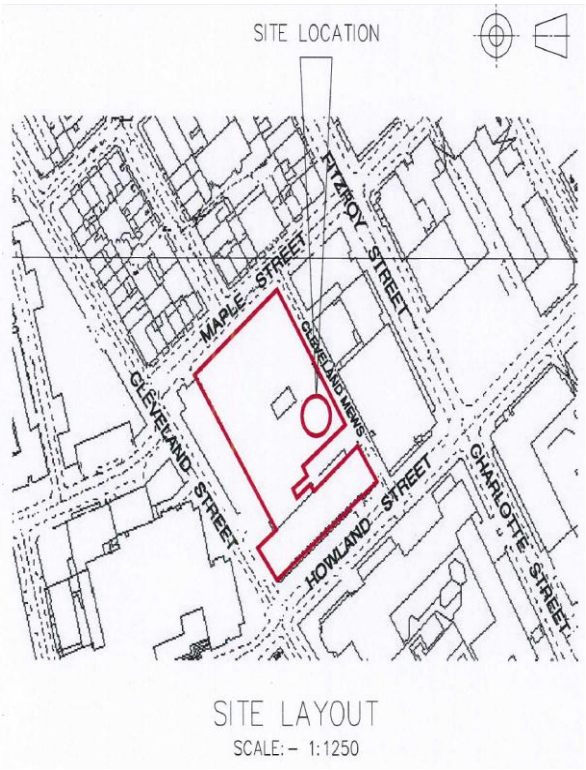


Fig 2.1 – Location of Proposed development **Fig 2.2 – Site Layout**

[Accurate scaled drawings attached – See Annexes]

2.4 Having been built in 1961-5 as a centre for national and international telephone communication by ultra-high frequency microwave transmission, the tower in its history of existence has served as a telecommunications infrastructure hub.

2.5 The tower was stands at 189 metres and was designed to maximise transmission signals. Its cylindrical shape and concrete centre provide for a good angle for transmission and works to reduce wind resistance and resulting movement. The re-in forced concrete centre has a steel lattice cantilevered frame - forming the main visible

structure – attached, which is finished in anti-sun glass. Previously the top wider gallery section at the top used to host a restaurant. Above the gallery is the large advertising platform.

2.6 Currently the building is in use as a central telecommunications hub for the UK; where the majority of the microwave transmissions links have been replaced with subterranean fibre optic links.

2.7 In 2003 it was listed as a Grade II listed building, alongside the antennas – which were removed in 2011 under planning consent.

2.8 The area identified on the roof is at 166m above ground level and is an established telecommunications site, already housing 20 other microwave transmission dishes (varying in size).

3. Development Proposal

3.1 The larger project is to create a series of point to point microwave transmission links; this application is to support the amendment to these links. The dishes would provide microwave transmission links to 4 other telecommunication sites – that being determined by the bearings that they will be installed at.

3.2 The site itself is the roof of the advertising section of the tower, located at 166m above ground level –the previous dishes are fixed to their place using galvanised frame mounts from existing fixing points.

3.3 Its appearance and logistics are discussed in Fig 3.2, as follows the standard requirement for telecommunication masts.

Structure	Standard Microwave transmission dishes
Description	White, round dishes attached using galvanized steel frames.
Overall Height	166m
Height of existing building	189m

Fig 3.2 – Development Appearance

3.4 For the West Facing Elevation, the dish at T143 has changed location following the previous application. Scaled drawings are attached for further investigation and understanding.

3.5 The changes regarding mast location and size are detailed in the images below (for scale drawings please refer to annexes). Currently the dish at T145 (1.8m DIA dish at 73 degrees at the East Facing Elevation) is the one to be installed as per the primary application.

3.6 The dishes at T146 and T144 have been moved from the locations proposed in the first and second applications to the position stated below in the diagram (sizes have also been changed following an on-site visit as mentioned in the Health and Safety section).

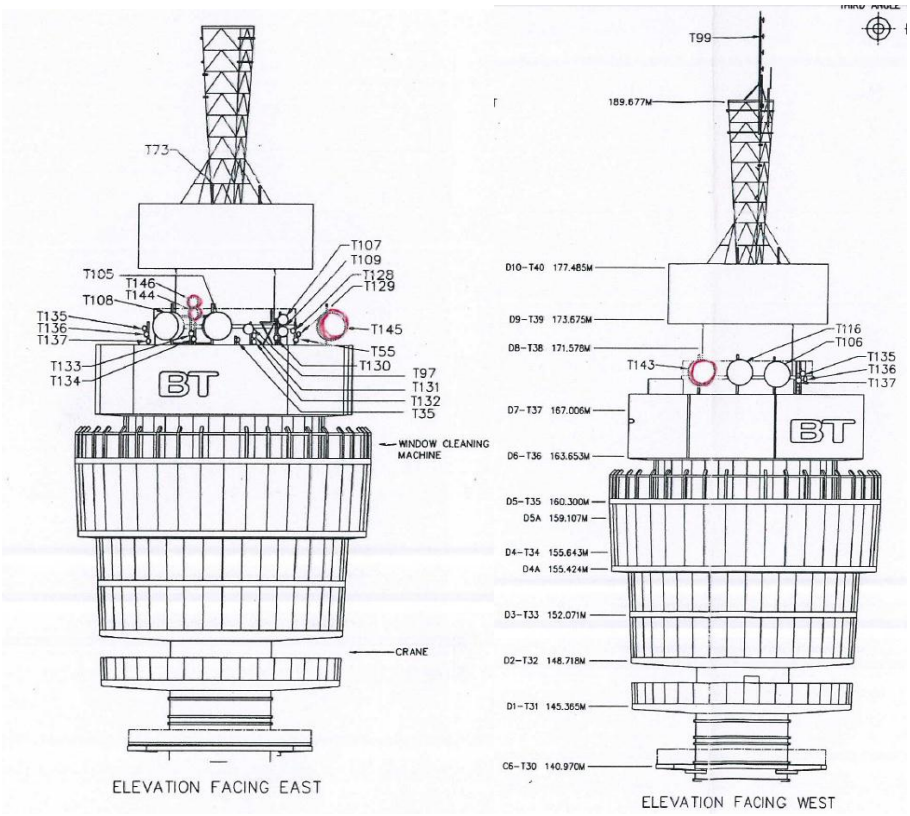


Fig 3.1 – Proposal explanation.

[Accurate scaled drawings attached – See Annexes]

3.7 Therefore the development in final (changes included) shall be:

1x 1.8m F/C at 73 degrees (continuing from 1st application dated: 16/01//2013***)***

1x 1.8m F/C at 267 degrees (change in location after 2nd application dated after: 16/05//2013***)***

1x 0.6m F/C at 104 degrees (changed in location and increased from 0.3m after 2nd application date: 16/05//2013***)***

1x 0.6m F/C at 109 degrees (changed in location and decreased in size from 0.9m from application dated: 16/01//2013***)***

4. Policy Framework

4.1 The planning process takes into account, both primary statutes (Acts of Parliament) and delegated (Rules, Regulations, Orders and Directions) of legislation. By adhering to these rules and policies, this application seeks to further the process of the proposed development.

4.2 The over-arching theme in the 2012 publication of the National Planning Policy Framework is Sustainable Development (Para. 14); which is vital to any development analysis. This statement serves as a form of analysis to confirm that this proposal adheres to the concept of 'meeting our needs without compromising the resources of the future).

4.3 Section 5 of the NPPF (Supporting High Quality Communications Infrastructure) supersedes Planning Policy Guidance 8. High quality communications networks are the basis for securing economic and social wealth and should therefore be encouraged. Adhering to this and the principle of Sustainable development the ideal situation is to keep the number of sites required to a minimum without compromising the efficiency of the network.

4.4 The following policy has been picked out in relevance to this particular development proposal.

Policy Reference	Policy Requirement	Policy Analysis
National Policy *NPPF/2012/Par. 128*	Applicants must describe significance of heritage asset affected.	**See Part 5** as detailed.
National Policy *NPPF/2012/Par.131*	Three factors that LPAs need to take into account: - Sustaining heritage asset. - Contribution of heritage asset. - Contribution of proposal.	**See Part 5**
National Policy *NPPF/2012/Par.132*	When considering impact of development, priority should be given on heritage asset's conservation	BT Tower is already a telecommunications hub, adding an extra 4 dishes will not impact use or hinder conservation methods.
National Policy *NPPF/2012/Par. 133*	Development with less harm to asset should be assessed against benefit. (Specific details)	No harm recorded or found the installation of microwave transmission links adheres to Section 5 of the NPPF and promotes economic and social welfare.
National Policy *NPPF/2012/Par. 134*	Development with less harm to asset should be assessed against benefit.	As above.
National Policy *NPPF/2012/Par. 137*	LPAs should seek development that enhance protected site or put them to good use – if they don't damage the site.	The tower exists as a telecommunications hub already and was built for that purpose. Therefore it will not be damaging site or changing it significantly.
Local Policy *London Plan/Pol. 7.8*	Development affecting heritage sites should conserve their significance whilst being sympathetic to form/scale/material etc.	No change to material or architectural structure. The addition of apparatus is similar to that already installed; it is just increasing in number.
Local Policy *London Plan/Pol 7.11*	Protect views that are significant to the London skyline.	Negligible visual impact on London Skyline.
Local Policy *London Policy/Pol 7.12*	Criteria for considering applications that may impact upon vistas.	Negligible visual impact on London Skyline.
Local Policy *LBC/2010/CS 14*	B) Preserve and enhance listed buildings and heritage assets.	Appeals directly to asset's use and purpose as a telecommunications hub.
Local Policy *LBC/2010/DP 24*	All development, including alterations should be of the highest standard.	**Please see annexes and Systems Operations**
Local Policy *LBC/2010/DP 25*	Consent will only be given where it does not cause harm to a building.	Development has been altered as per requirement and adheres to Health and Safety as well as design and heritage implications.

Fig 4.1 – Policy Analysis Table

4.5 Below is a list of applications granted on site , provided to confirm the relevance of context to planning policy as described;

Application Number: 2012/0048/P

- Installation of 5 no Microwave Transmission Antennas to link with Telefonica Site at Bath Road, SLough, Equinix Sit at 2 Buckingham Avenue, Slough and exisitng Arqiva mast in Basildon
- **Decision : Granted**

Application Number: 2011/3687/P

- Installation of 4 dipole antennas mounted on a new climable support pole positioned above the existing lattice stub towe and associated equipment to include 3 new GPS antennas at the top of the tower and 2 new dishes above the BT advertising platform
- **Decision : Granted**

Application Number: 2011/1079/p

- Removal of aerial/satellite equipment in connection with the erection of a temporary scaffolding and loading platform for a period of 6 months to Telephone Exchange building.
- **Decision : Granted**

Application: PS9705137

- Installation of seven satelilite dishes on the 4th floor roof of the West Block roof, as shown by drawing number 6KN E 0R1 002 01 and Two A4 sized photo montages
- **Decision: Granted (with Permissions)**

Application: PSX010504

- Satellite dish installation, as shown on drawing numbers; 6KN E OR1 005 01 & 02 & 03 & 6KN E OR1 002 01; Steelwork layout; L00122/01&02
- **Decision: Granted (With Permissions)**

Figure 4.2 – List of Approved Applications

5. Heritage and Environment

5.1 The BT Tower is a heritage building that is iconic to the London skyline. From being built in 1964, until 1980, it was the tallest building in London and was designed for ultra-high frequency microwave transmissions – catering for the communications demand of the time.

5.2 The original microwave dishes were removed (originally located at the central part of the tower). It now stands as a symbol of the era, historically as 'the white heat of technology' era of Telecommunications in Britain.

5.3 The significance of the heritage asset for BT Communications Tower is that it is a landmark structure which has historical importance in the British Telecommunications industry, linked directly with the evolution of ultra-high frequency microwave transmission.

5.4 The proposal helps to provide income to the owner, helping with upkeep and maintenance – and it sustains the use of the tower originally.

6. Design(Visual) and Access

6.1 The building's design was based on the concept of function over form and thus the microwave dishes follow the same concept where they are designed and placed as suited though they adhere to policy restrictions in location.

6.2 The visual impact of the area would not be altered significantly, as its height above ground level means it is above eye levels and most building windows. It will only be visible from a long range view, though even that is unlikely due to the size of the dishes. There will be no real impact upon the London skyline.

Image 6.1 - BT Tower with Dishes

6.3 It has been established that the dishes would be fixed onto the tower using a combination of galvanised steel frame mounts attached to existing fixed points on the tower.

6.4 Electronic equipment and cabling would run through the existing cable trays on the tower, and run internally to the equipment room with the 'sharers' – the room with the electronic operating equipment.

6.5 Located at 166m AGL on the roof of the BT Tower. There is no public access to the proposal site and vehicular access to the site is gained via north-west on Cleveland Mews. Limited need for access would be required once

installed.

Image 6.2 - Rooftop View of 1.8m

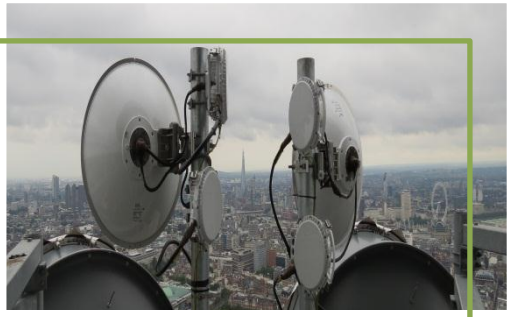


Image 6.3 - Rooftop View of 0.6m

7. Systems Operations

7.1 Following the NPPF's section 5 on the topic of communications infrastructure – the location of the site is ideal due to it already being designated as a telecommunication hub.

7.2 The height and size of the dishes have been determined to facilitate the minimum number of links required to deliver maximum efficiency.

7.3 As requested the required systems operation information for the product is attached in the appendices. **(Please refer to Annexes)**

8. Consultation

8.1 The proposal is considered safe simply by its technical design. The proposal is a point to point pencil beam private communication transmission link and relies solely on the clear line of sight between links. This means that it will not work should the line be disrupted.

8.2 As the equipment proposed complies with the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and by the existing telecommunications on site, no further consultation was deemed necessary.

9. Health and Safety

9.1 The emission of radio waves or electromagnetic fields that emerge from the presence of base stations, power lines and broadcasting transmitters, visual display units and television sets are source of increasing concern for certain members of the public.

9.2 Though several studies have been carried out to determine the safety or harm of electromagnetic fields, no conclusive evidence has been found towards either effect.

9.3 The Stewart Report indicates that a precautionary approach be followed due to the evidence that suggests there may be an occurrence of biological effects. However the research in itself hasn't concluded if that occurrence is harmful.

9.4 Central government policy states that the planning system is not the place where health safeguards should be determined and that if base stations meet the ICNIRP guidelines for public exposure then the development is not liable to further health and safety checks.

9.5 A certificate of compliance is attached. **(Please refer to Annexes)**

9.6 On a site visit on the 10th of December 2013, a discussion regarding the change in dish sizes took place between Martin Harris of PHA Communications Ltd. and Jenna Litherland of BT. The result of this conversation was the change in dish size and location as explained in the development proposal.

10. Conclusion

10.1 This development proposal aims to use the existing facility for telecommunications, thereby adhering to section 5 of the NPPF. By placing these microwave dishes amongst 20 other users' communications equipment, the area is being utilized as per existing use.

10.2 The proposed dishes will be of the same standard as the pre-existing dishes located in the area and should not alter the appearance, design, access or even the significance of the heritage of the building itself.

10.3 On the basis of the analysis undertaken, the proposal could be said to follow the policy framework as required.

11. References

GREAT BRITAIN. Crown Office, Department for Communities and Local Government. (2012). *National Planning Policy Framework*. Circular distributed March. London: Crown Office.

Planning Application (2012). *6283/P*. London. London Borough of Camden Council, United Kingdom.

Planning Application (2013). *1697/P*. London. London Borough of Camden Council, United Kingdom

Listed Building Consent Application (2012). *6347/L*. London. London Borough of Camden Council, United Kingdom.

Listed Building Consent Application (2013). *2073/L*. London. London Borough of Camden Council, United Kingdom.

12. Annexes

Annex 1- Listing Statement

List Entry Summary

This building is listed under the Planning (Listed Buildings and Conservation Areas) Act 1990 as amended for its special architectural or historic interest.

Name: BT COMMUNICATION TOWER

List Entry Number: 1350342

Location

BT COMMUNICATION TOWER, CLEVELAND MEWS

The building may lie within the boundary of more than one authority.

County: Greater London Authority
District: Camden
District Type: London Borough
Parish:

National Park: Not applicable to this List entry.

Grade: II

Date first listed: 26-Mar-2003

Date of most recent amendment: Not applicable to this List entry.

Legacy System Information

The contents of this record have been generated from a legacy data system.

Legacy System: LBS

UID: 490152

Asset Groupings

This List entry does not comprise part of an Asset Grouping. Asset Groupings are not part of the official record but are added later for information.

List Entry Description

Summary of Building

Legacy Record - This information may be included in the List Entry Details.

Reasons for Designation

Legacy Record - This information may be included in the List Entry Details.

History

Legacy Record - This information may be included in the List Entry Details.

Details

TQ2981NW CLEVELAND MEWS
798-1/98/10169 (Southwest side)
26-MAR-03 BT Communication Tower

II

Radio tower, proposed 1954, built 1961-5 to the design of the Ministry of Public Buildings and Works Architect's Department; Eric Bedford Chief Architect, G R Yeats, senior architect in charge; S G Silhan, senior engineer MPBW, structural engineer; J J Taylor, senior engineer MPBW, services engineer; Kenneth Holloway, Post Office engineer.

Sleek reinforced concrete cylinder, board mark finished to lower 130 feet and 582 feet high, with 40ft mast on top. Reinforced concrete floors. Deep raft foundations. Central chimney like shaft of reinforced concrete, the upper section 22ft in diameter and with walls one foot thick, tapering outwards to 35ft external diameter at base with 2ft thick walls. The lower seventeen floors of equipment rooms, ventilation plant and offices clad in triple curtain wall comprised externally of stainless steel glazed with Antisun glass. 103 feet of hospitality floors at top of tower, on six levels, originally with observation floors, restaurant and kitchen, and with three further storeys housing plant room above. The aerials and dishes had to be mounted between 365 and 475 feet to achieve adequate ground and obstacle clearance, and were mounted on circular galleries to give the maximum flexibility for adjustment and for subsequent new equipment. The circular shape dictated by the aerials has been retained in the remainder of the tower, to maintain consistency of form and to provide minimum wind resistance. Because of the building's taper the lower five floors are substantially smaller. Ground floor entrance on Maple Street leads to tower foyer, with exhibition space on concave link floor above. Lift lobbies lead to 65ft diameter restaurant floor which originally revolved once every 25 minutes, with former cocktail lounge and weather station above. The building, originally with public access to galleries and restaurant, now serves only BT's guests. The interiors have been entirely refurbished. The telecommunications and servicing equipment is not included in the listing.

The BT Tower was built as a centre of national and international telephone communication by ultra-high frequency (UHF) microwave transmission. The site was chosen at the rear of the Museum Telephone Exchange, because this exchange was already the focal point of the telecommunications system and the vision cables network for London, with cable connection to Broadcasting House (q.v, City of Westminster). However, as telephone use soared in the 1950s, and was correctly predicted to increase still more quickly in the 1960s, it became increasingly difficult to provide adequate cable links in central London. Radio telephones using low frequencies had long been used, but the use of high frequencies was in its infancy, and this commitment to the use of high frequencies on a potentially massive scale placed the tower at the forefront of international design. 'It will represent a considerable advance on any existing international centre' (Institution of Civil Engineers, 1965, p.33). The sensitive equipment meant that the tower had to be exceptionally stable to maintain the accuracy of the narrow beam transmitters. By means of tests in the National Physical Laboratory wind tunnel, it was stiffened so as to deflect only eleven inches in a hundred mile an hour gale. The cylindrical shape reduced wind resistance.

The height was raised to over 580 feet as building commenced, in order that the tower should be taller than the office buildings then being erected in London. Its waves were relayed across Britain via a series of masts, the nearest being at Harrow. The design was carefully considered for its elegance. 'The massing is a very welcome addition to the urban landscape' (Architects' Journal, 22 June 1966, p.1543). The design to include restaurant facilities was made only in mid-1961, and is part of a movement across North America and central Europe in favour of landmark restaurants connected with radio masts. However, the comparable, slightly earlier towers at Dortmund, Stuttgart and Vienna were only television transmitters, and the Space

Needle at the Seattle World's Fair (opened 1962) was principally a place of entertainment. The restaurant and observatory floors give stability to the structure, and raised the Post Office's image when first built. The observation floors were closed to the public in 1971, and the restaurant in 1980.

Office building along Cleveland Street and Maple Street forms a visual plint to the tower with a supporting link on the fourth floor, but it has its own entrance on the corner of Cleveland Street and is not itself of special interest and not included in the listing.

The Telecom Tower was originally known as the Museum Radio Tower, and subsequently the Post Office Tower and Telecom Tower.

Sources
Official Architecture and Planning, September-October 1961, pp.412-13
The Builder, 7 August 1964, pp.265-8
L R Creasy, H C Adams and N Lampitt, Museum Radio Tower, paper no. 6822, London, Institution of Civil Engineers, London, 1965,
Architectural Review, August 1965, p.123.
Architect and Building News, 25 May 1966, pp.939-44
Architects' Journal, 22 June 1966, pp.1537-49
'The Post Office Tower', in The Journal of the London Society, no.377, December 1966, pp.107-116

Selected Sources

Book Reference - *Author:* Creasy, LR. Adams, HC and Lampitt, N - *Title:* Museum Radio Tower: paper no. 6822 - *Date:* 1965

Article Reference - *Title:* 22 June - *Date:* 1966 - *Journal Title:* Architects' Journal - *Page References:* 1537-49

Article Reference - *Title:* 25 May - *Date:* 1966 - *Journal Title:* Architect and Building News - *Page References:* 939-44

Article Reference - *Title:* 7 August - *Date:* 1964 - *Journal Title:* The Builder - *Page References:* 265-8

Article Reference - *Title:* August - *Date:* 1965 - *Journal Title:* Architectural Review - *Page References:* 123

Article Reference - *Title:* No. 377 - *Date:* 1966 - *Journal Title:* The Journal of the London Society - *Page References:* 107-116

Article Reference - *Title:* September-October - *Date:* 1961 - *Journal Title:* Official Architecture and Planning - *Page References:* 412-13

Map

National Grid Reference: TQ 29215 81922

The below map is for quick reference purposes only and may not be to scale. For a copy of the full scale map, please see the attached PDF - 1350342.pdf

This copy shows the entry on 13-Jan-2014 at 03:01:07.

Annex 2 – Product Specification (additional Manufacture's attachment)

Annex 3 – Annotated Drawings (attachment)