

Trafford Council  
 Strategic Planning and Development  
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 Sale Waterside  
 Sale  
 Greater Manchester  
 M33 7ZF

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09 July 2014

Dear Sir / Madam

**Trafford Council- Land Allocations Consultation Draft  
 SUBMISSION ON BEHALF OF NATIONAL GRID**

National Grid has appointed AMEC to review and respond to development plan consultations on its behalf. We are instructed by our client to submit the following representation with regards to the consultation on the above document.

**National Grid infrastructure within Trafford Council’s administrative area**

Electricity Transmission

National Grid’s high voltage electricity overhead transmission lines within Trafford Council’s administrative area that form an essential part of the electricity transmission network in England and Wales include the following:

Line Ref.	Description
ZQ line	400kV overhead transmission line from Daines substation to Tottington Tee.
ZZN line	275kV overhead transmission line from Daines substation in Trafford to South Manchester substation in Trafford.
ZE line	400kV overhead transmission line from Carrington substation in Trafford to Drakelow substation in South Derbyshire.
ZO line	400kV overhead transmission line from Carrington substation to Deeside substation.
EA line	132kV overhead transmission line between Carrington substations.
DO line	132kV overhead transmission line between Carrington substations.

The following substations are also located within the administrative area of Trafford Council:

South Manchester 275kV substation
Daines 400kV substation
Carrington 275/400kV substation

National Grid has provided information in relation to electricity transmission assets via the following internet link:

<http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW>

## Gas Transmission

National Grid has the following gas transmission assets within the administrative area of Trafford Council:

<b>Pipeline</b>	<b>Feeder Detail</b>
FM04	Warburton to Partington
FM04	Warburton to Audley
FM21	Warburton to Audley
FM21	Warrington to Warburton
FM15	Bretherton to Warburton

National Grid has provided information in relation to gas transmission assets via the following internet link:

<http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW>

National Grid requests that any High Pressure Major Accident Hazard Pipelines (MAHP) are taken into account when site options are developed in more detail. These pipelines form an essential part of the national gas transmission system and National Grid's approach is always to seek to retain our existing transmission pipelines in situ.

## Gas Distribution

National Grid Gas Distribution owns and operates the local gas distribution network in Trafford Council area. If you require site specific advice relating to our local gas distribution network then information should be sought from:

National Grid Plant Protection  
 National Grid, Block 1, Floor 2  
 Brick Kiln Street  
 Hinckley  
 LE10 0NA  
[plantprotection@nationalgrid.com](mailto:plantprotection@nationalgrid.com)

## **Specific Comments**

It has been brought to our attention from the HSE that Trafford Council consulted on its Land Allocations Plan in January 2014. We would be grateful if you could add our details shown below to your consultation database for future use:

[n.grid@amec.com](mailto:n.grid@amec.com)

AMEC E&I UK  
 Gables House  
 Kenilworth Road  
 Leamington Spa  
 Warwickshire  
 CV32 6JX

Having reviewed the consultation document, the following Strategic Location is identified as being within close proximity to National Grid's electricity and gas assets in the area:

- CAR1- Carrington Strategic Location

## Electricity Assets - Substations

National Grid's Carrington substation is identified as being within the Carrington Strategic Location whilst the Daines substation is identified as being adjacent to this strategic location.

The Carrington Strategic Location proposes a substantial new mixed use development including 1560 residential units and 75 hectares of employment land. A plan showing the extent of National Grid's landholdings at Carrington substation is enclosed at appendix 2.

While National Grid does not object to future development in the area surrounding the substation site, we would like to take this opportunity to highlight that substations are vital to the efficient operation of our electricity transmission network for switching circuits or transforming voltage. Carrington substation is an essential part of the transmission network and has an important role to play in maintaining the supply of electricity to the local distribution network operator and therefore ultimately to homes and businesses throughout Trafford and the wider area. The site is therefore "Operational Land" and, for the reasons outlined above, there may need to be further essential utility development at the site in the future

#### Electricity Assets – Overhead Transmission Lines

In addition, the following National Grid high voltage overhead electricity transmission lines routed via Carrington substation pass through the Carrington Strategic Location:

- ZE 400 kV route
- ZO 400kV route
- ZZN 275kV route
- ZQ 400 kV route
- EA 132kV route
- DO 132kV route

National Grid does not own the land over which the overhead lines cross, and it obtains the rights from individual landowners to place our equipment on their land. Potential developers of the sites should be aware that it is National Grid policy to retain our existing overhead lines in-situ. Because of the scale, bulk and cost of the transmission equipment required to operate at 400kV National Grid only supports proposals for the relocation of existing high voltage overhead lines where such proposals directly facilitate a major development or infrastructure project of national importance which has been identified as such by central government. Therefore we advise developers and planning authorities to take into account the location and nature of existing electricity transmission equipment when planning developments.

National Grid prefers that buildings are not built directly beneath its overhead lines. This is for two reasons, the amenity of potential occupiers of properties in the vicinity of lines and because National Grid needs quick and easy access to carry out maintenance of its equipment to ensure that it can be returned to service and be available as part of the national transmission system. Such access can be difficult to obtain without inconveniencing and disturbing occupiers and residents, particularly where properties are in close proximity to overhead lines.

The statutory safety clearances between overhead lines, the ground, and built structures must not be infringed. To comply with statutory safety clearances the live electricity conductors of National Grid's overhead power lines are designed to be a minimum height above ground. Where changes are proposed to ground levels beneath an existing line then it is important that changes in ground levels do not result in safety clearances being infringed. National Grid can, on request, provide to developers detailed line profile drawings that detail the height of conductors, above ordnance datum, at a specific site.

National Grid seeks to encourage high quality and well planned development in the vicinity of its high voltage overhead lines. Land beneath and adjacent to the overhead line route should be used to make a positive contribution to the development of the site and can for example be used for nature conservation, open space, landscaping areas or used as a parking court. National Grid, in association with David Lock Associates has produced 'A Sense of Place' guidelines, which look at how to create high quality development near overhead lines and offers practical solutions which can assist in avoiding the unnecessary sterilisation of land in the vicinity of high voltage overhead lines.

'A Sense of Place' is available from National Grid and can be viewed at:

<http://www.nationalgrid.com/uk/Senseofplace/Download/>

Further information regarding development near overhead lines and substations is available here:

[http://www.nationalgrid.com/uk/LandandDevelopment/DDC/devnearohl\\_final/pdf/brochure.htm](http://www.nationalgrid.com/uk/LandandDevelopment/DDC/devnearohl_final/pdf/brochure.htm)

## Gas Transmission

National Grid also has the high pressure underground gas transmission pipeline FM04 Warburton to Partington located within the Carrington Strategic Location.

Our underground pipelines are protected by permanent agreements with landowners or have been laid in the public highway under our licence. These grant us legal rights that enable us to achieve efficient and reliable operation, maintenance, repair and refurbishment of our gas transmission network. Hence we require that no permanent structures are built over or under pipelines or within the zone specified in the agreements, materials or soil are not stacked or stored on top of the pipeline route and that unrestricted and safe access to any of our pipeline(s) must be maintained at all times.

Local authorities have a statutory duty to consider applications for development in the vicinity of high pressure (above 7 bar) pipelines and to advise the developer on whether the development should be allowed on safety grounds on rules provided by HSE. This advice is provided by the HSE Planning Advice for Development near to Hazardous Installations (PADHI) process. The relevant HSE guidance can be accessed via the following link: <http://www.hse.gov.uk/landuseplanning/padhi.pdf>

In order to ensure that National Grid's pipelines are protected from uncontrolled development in the vicinity of the pipeline please also read the following guidance prepared by National Grid:

- Specification for Safe Working in the Vicinity of National Grid High Pressure Gas Pipelines and Associated Installations - Requirements for Third Parties  
[http://www.nationalgrid.com/NR/rdonlyres/50ACAC0A-ED26-41A7-91FA-83163A98270F/23790/TSPSSW22\\_J537\\_Rev0807.pdf](http://www.nationalgrid.com/NR/rdonlyres/50ACAC0A-ED26-41A7-91FA-83163A98270F/23790/TSPSSW22_J537_Rev0807.pdf)
- Gas Transmission Underground Pipelines – Guidance  
[http://www.nationalgrid.com/NR/rdonlyres/446009BF-ABB5-42E1-B9FE-44E90D577DD5/18653/APTGasGuidance\\_2\\_.pdf](http://www.nationalgrid.com/NR/rdonlyres/446009BF-ABB5-42E1-B9FE-44E90D577DD5/18653/APTGasGuidance_2_.pdf)

Should this site be taken forward as development sites in the future, the developers should be made aware of the above issues.

## **Map of National Grid Assets**

Please find attached in Appendix 1 maps of the sites referenced above in relation to the affected National Grid assets.

## **Further Advice**

National Grid is happy to provide advice and guidance to the Council concerning our networks. If we can be of any assistance to you in providing informal comments in confidence during your policy development, please do not hesitate to contact us. In addition the following publications are available from the National Grid website or by contacting us at the address overleaf:

- National Grid's commitments when undertaking works in the UK - our stakeholder, community and amenity policy;
- specification for Safe Working in the Vicinity of National Grid High Pressure Gas Pipelines and Associated Installations - Requirements for Third Parties; and
- A sense of place - design guidelines for development near high voltage overhead lines.

Please remember to consult National Grid on any Development Plan Document (DPD) or site-specific proposals that could affect our infrastructure.

I hope the above information is useful. If you require any further information please do not hesitate to contact me.

Yours sincerely,



[via email]

**Julian Austin**  
**Consultant Town Planner**

cc. Laura Kelly, National Grid

## **Annex: Overview- National Grid**

National Grid is a leading international energy infrastructure business. In the UK National Grid's business includes electricity and gas transmission networks and gas distribution networks as described below.

### Electricity Transmission

National Grid, as the holder of a licence to transmit electricity under the Electricity Act 1989, has a statutory duty to develop and maintain an efficient, co-ordinated and economical transmission system of electricity and to facilitate competition in the supply and generation of electricity.

National Grid operates the national electricity transmission network across Great Britain and owns and maintains the network in England and Wales, providing electricity supplies from generating stations to local distribution companies. We do not distribute electricity to individual premises ourselves, but our role in the wholesale market is key to ensuring a reliable and quality supply to all. National Grid's high voltage electricity system, which operates at 400,000 and 275,000 volts, is made up of approximately 22,000 pylons with an overhead line route length of 4,500 miles, 420 miles of underground cable and 337 substations. Separate regional companies own and operate the electricity distribution networks that comprise overhead lines and cables at 132,000 volts and below. It is the role of these local distribution companies to distribute electricity to homes and businesses.

To facilitate competition in the supply and generation of electricity, National Grid must offer a connection to any proposed generator, major industry or distribution network operator who wishes to generate electricity or requires a high voltage electricity supply. Often proposals for new electricity projects involve transmission reinforcements remote from the generating site, such as new overhead lines or new development at substations. If there are significant demand increases across a local distribution electricity network area then the local network distribution operator may seek reinforcements at an existing substation or a new grid supply point. In addition National Grid may undertake development works at its existing substations to meet changing patterns of generation and supply.

### Gas Transmission

National Grid owns and operates the high pressure gas transmission system in England, Scotland and Wales that consists of approximately 4,300 miles of pipelines and 26 compressor stations connecting to 8 distribution networks. National Grid has a duty to develop and maintain an efficient co-ordinated and economical transmission system for the conveyance of gas and respond to requests for new gas supplies in certain circumstances.

New gas transmission infrastructure developments (pipelines and associated installations) are periodically required to meet increases in demand and changes in patterns of supply. Developments to our network are as a result of specific connection requests e.g. power stations, and requests for additional capacity on our network from gas shippers. Generally network developments to provide supplies to the local gas distribution network are as a result of overall demand growth in a region rather than site specific developments.

### Gas Distribution

National Grid also owns and operates approximately 82,000 miles of lower-pressure distribution gas mains in the north west of England, the west Midlands, east of England and north London - almost half of Britain's gas distribution network, delivering gas to around 11 million homes, offices and factories. National Grid does not supply gas, but provides the networks through which it flows. Reinforcements and developments of our local distribution network generally are as a result of overall demand growth in a region rather than site specific developments. A competitive market operates for the connection of new developments.

## **National Grid and Local Development Plan Documents**

The Energy White Paper makes clear that UK energy systems will undergo a significant change over the next 20 years. To meet the goals of the white paper it will be necessary to revise and update much of the UK's energy infrastructure during this period. There will be a requirement for:

- an expansion of national infrastructure (e.g. overhead power lines, underground cables, extending substations, new gas pipelines and associated installations); and
- new forms of infrastructure (e.g. smaller scale distributed generation, gas storage sites).

Our gas and electricity infrastructure is sited across the country and many stakeholders and communities have an interest in our activities. We believe our long-term success is based on having a constructive and sustainable relationship with our stakeholders. Our transmission pipelines and overhead lines were originally routed in consultation with local planning authorities and designed to avoid major development areas but since installation much development may have taken place near our routes.

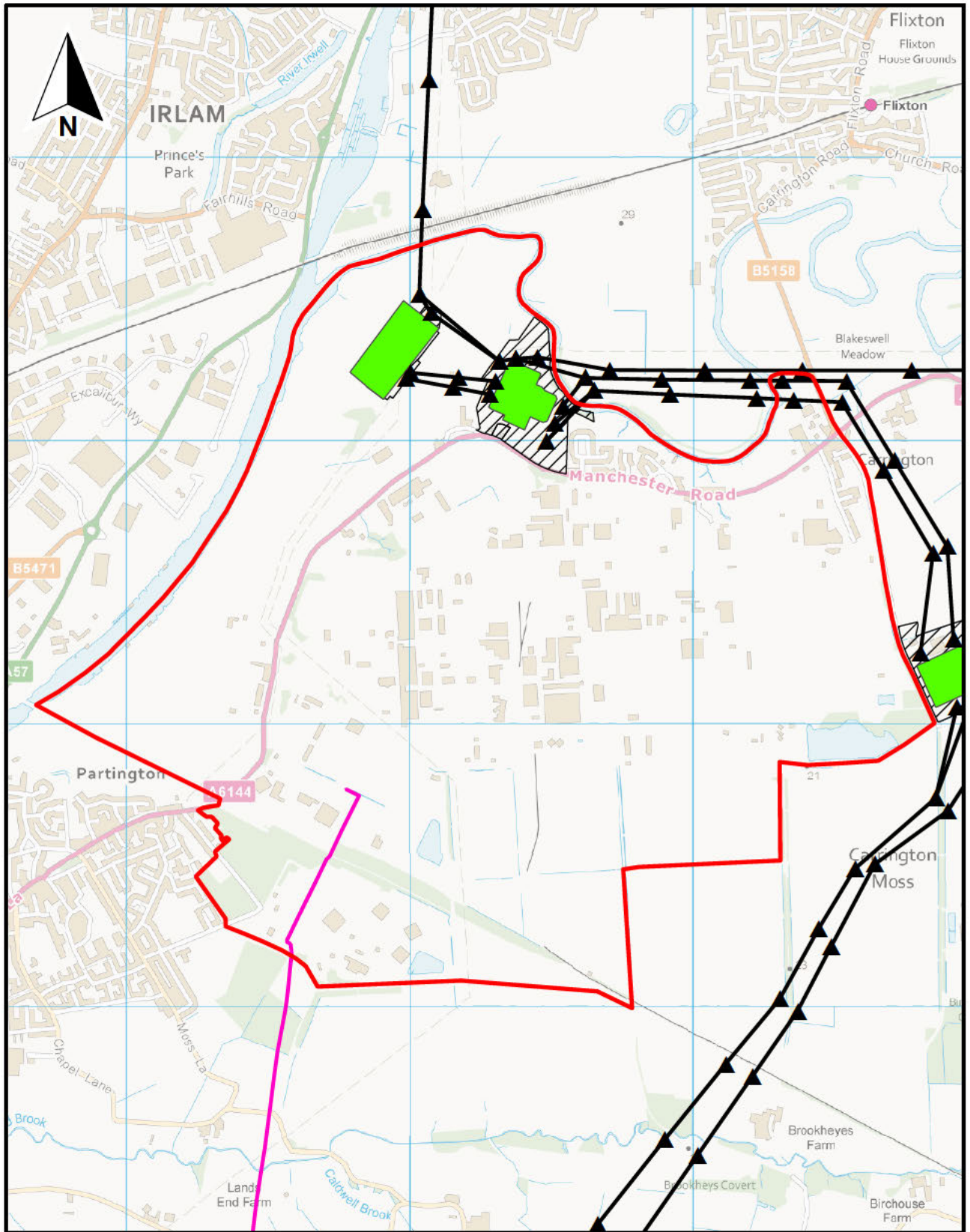
We therefore wish to be involved in the preparation, alteration and review of Development Plan Documents (DPDs) which may affect our assets including policies and plans relating to the following issues:

- any policies relating to overhead transmission lines, underground cables or gas pipeline installations;
- site specific allocations/land use policies affecting sites crossed by overhead lines, underground cables or gas transmission pipelines;
- land use policies/development proposed adjacent to existing high voltage electricity substation sites and gas above ground installations;
- any policies relating to the diverting or undergrounding of overhead transmission lines;
- other policies relating to infrastructure or utility provision;
- policies relating to development in the countryside;
- landscape policies; and
- waste and mineral plans.

In addition, we also want to be consulted by developers and local authorities on planning applications, which may affect our assets and are happy to provide pre-application advice. Our aim in this is to ensure that the safe and secure transportation of electricity and gas is not compromised.

**APPENDIX 1: NATIONAL GRID ASSETS AFFECTED**





**Key:**

Indicative Site boundary

**National Grid Assets**

Tower National Grid Land Ownership

Overhead Line

Gas Pipe

Substation

0 100 200 400 600 800 Metres  
1:20,000 @ A4

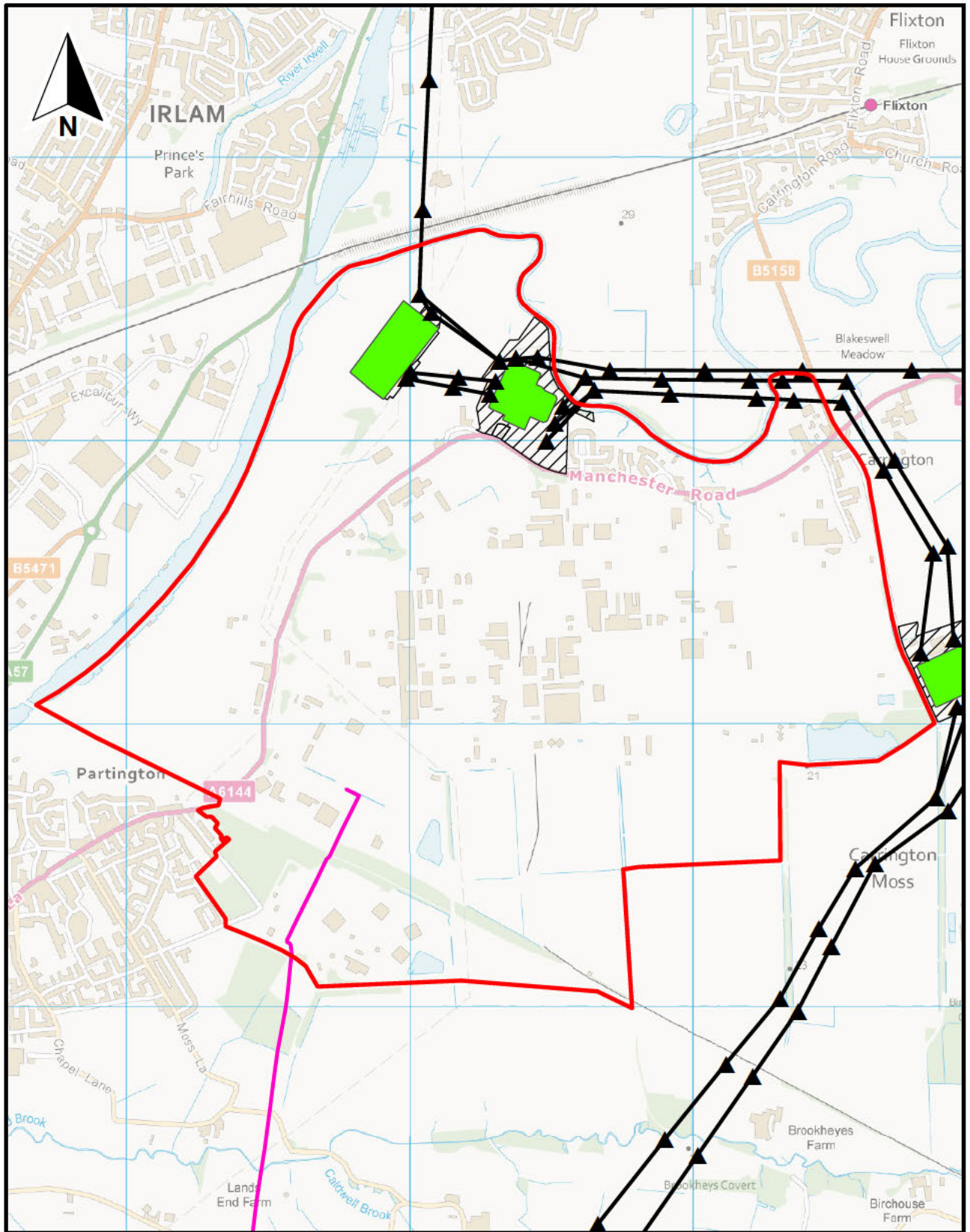
**Development Plan Monitoring**

**National Grid Reference: Site E377**  
**Trafford Council**  
**Local Plan Reference: CAR1- Carrington**  
**Strategic Location**  
**Type of Development: Mixed use**


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**Key:**


 Indicative Site boundary

**National Grid Assets**

 Tower  National Grid Land Ownership

 Overhead Line

 Gas Pipe

 Substation

0 100 200 400 600 800 Metres  
1:20,000 @ A4

Development Plan Monitoring

**National Grid Reference: Site G132**  
**Trafford Council**  
**Local Plan Reference: CAR1- Carrington**  
**Strategic Location**  
**Type of Development: Mixed use**

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**APPENDIX 2: NATIONAL GRID'S CARRINGTON SUBSTATION**

