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Author Barry O'Neill  
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Building Services  
Consulting Engineers  
80 Willow Park Avenue,  
Dublin D11AE48  
086 386 7097  
Db1@bbsc.ie

# TELECOMMUNICATIONS IMPACT ASSESSMENT

## RATOATH SOUTH SHD CO. MEATH

Architect RKD Architects  
Project Managers Floton Project Management  
Structural & Transport Engineers OCSC Consulting Engineers  
Services Engineers BBSC Consulting Engineers  
Environmental Consultants Altemar  
Landscape Architects BSM

On Behalf of **Beo Properties Ltd.**

| REVISION | DATE OF ISSUE | Reason For Issue | By  | Chk'd |
|----------|---------------|------------------|-----|-------|
| P.00.04  | 16 May 2022   | PLANNING         | BON | BON   |
|          |               |                  |     |       |
|          |               |                  |     |       |

## PROPOSED DEVELOPMENT

### Summary Description

The development will principally consist of the construction of 452 no. residential units which are located in 12 neighbourhoods. Building heights ranging from 2-3 storey terraced houses and 3-4storey duplex buildings (1 storey ground floor units and 2 storey first and second floor units; 2 storey ground and first floor units and 2 storey second and third floor units) and 6-storey apartment blocks. Private open space associated with the residential units is provided in the form of rear gardens, balconies, terraces and winter gardens. The development includes a crèche with associated outdoor play areas at ground floor and at roof level; 4 no. commercial/retail units; a landscaped public open space which includes a civic plaza; communal open space in the form of communal courtyards for each neighbourhood; associated car and cycle parking serving the full development and uses therein; solar PV panels; a second phase of the Ratoath Outer Relief Road (RORR), that will run along the southern boundary of the application site join up to the existing constructed section of the RORR, with two priority controlled junctions; a series of pedestrian and cycle connections from the Fairyhouse Road (R155), Cairn Court, Glascarn Lane and the new RORR; internal road and shared surface networks including pedestrian and cycle paths; public lighting and all associated site development and infrastructural works, services provision, ESB substations, foul and surface water drainage, extension to the foul network, access roads/footpaths, lighting, landscaping and boundary treatment works and all ancillary works necessary to facilitate the development

(Full Statutory Description will be circulated separately to this report).

### KEY PROJECT DETAILS:

No. of Units: 452

Site Area: 14.166 Hectares

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# 1 PURPOSE OF REPORT

Beo Properties Ltd. appointed BBSC, April 2021 to study the impact on telecommunications to the development as set out under SI 600/2001.

The development will be over multiple phases.

It shall comprise Apartments, landlord areas, civic amenity, creche as outlined in the Development Description above.

# 2 TELECOMS

Telecoms shall be routed in underground ducts from the existing street underground and or over ground services as required to each Unit (being a Dwelling, Apartment, Landlord requirement, Commercial unit) as required.

It is expected to provide Fibre/ CAT 6 or CAT 7 to each dwelling from several on street cabinets to each dwelling or unit.

No shared lines to be provided.

Other phone or data lines for Fire alarms, lifts etc. shall be provided from the building specific rack to service the landlords obligations in regards to same for health, safety and other legal requirements.

The design is vendor neutral and is based on the following drawings;

- EIR drawing – attached at end of report
- Virgin Media Drawing - attached at end of report

Mobile Phone base stations are expected to be required given the current ratio of towers to persons and the expected population growth. These are expected to be mounted on Apartment roofs and a separate planning application for these will be required at a future date and once the population changes are fully determined.

# 3 PRINCIPLE STANDARDS

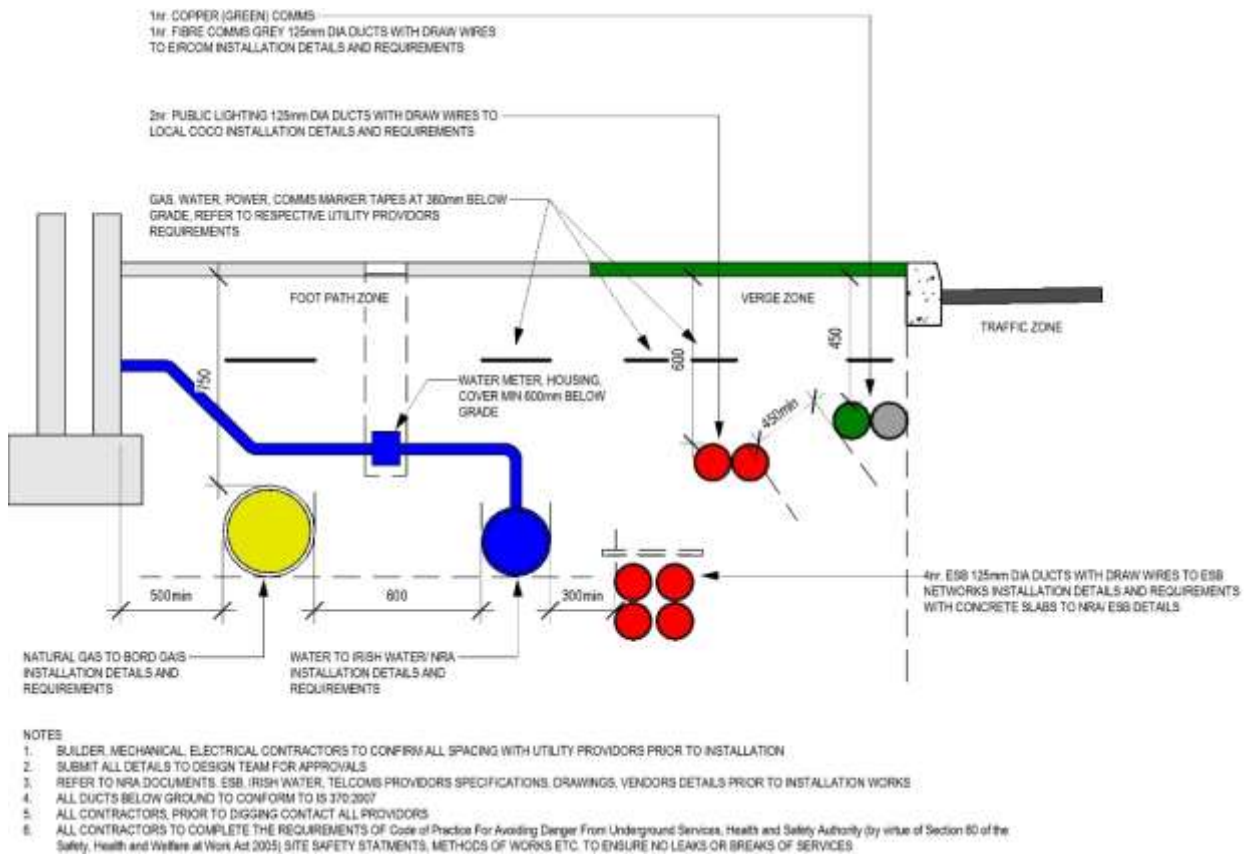
## **Building Regulations**

- Technical Guidance Documents as A through M as published and set out in Law, Department of the Environment, relevant edition relates to date of publication and date of building.
- S.I. No. 600/2001 - Planning and Development Regulations, 2001

## **General Electrical Standards**

- IS10101 National Rules for Electrical Installation
- ESB Publication, Housing Schemes: Guidebook for ESB Networks Standards for Electrical Services
- EIR Network Standards
- Siro Network Standards
- Virgin Network Standards
- PAS 2016:2010 Next Generation Access for new build homes

## 4 SITE SERVICES CO-ORDINATION DRAWINGS (TYPICAL)

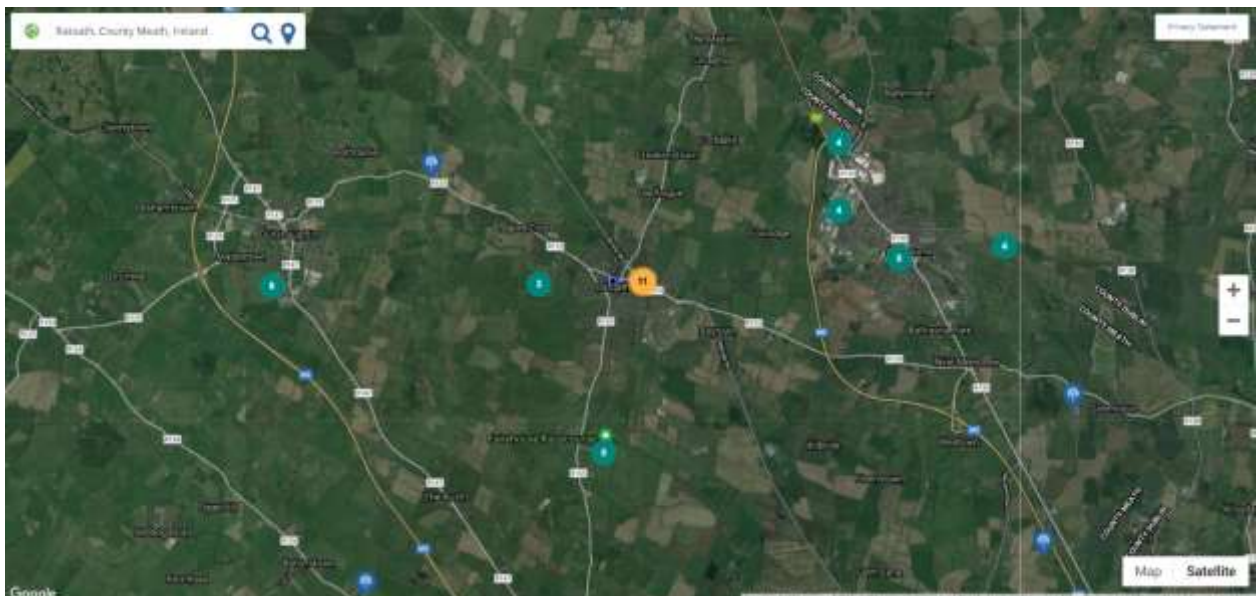


Sample of Service Co-ordination in ground

## 5 MOBILE PHONE TRANSMITTERS COVERAGE

Currently there are 19nr. Mobile Phone Transmitters in the Ratoath area for a population of 9,533 persons as of 2016 Census, this is a coverage of 1 Transmitter per 501 persons.

These are typically located in or on Commercial buildings or standalone Masts and require planning permission to mount.



- Cell Tower Data Obtained from <https://siteviewer.comreg.ie/#explore> 06<sup>th</sup> August 2021

The estimated population of approx. 2.5 to 4.5 persons per household, 457 dwellings will result in approximate range of 1,143 to 2,057 persons, this will require up to 2 to 5 additional mobile phone transmitters to provide 4G or better service, to be located in or at the creche site or at highest point(s) in the proposed development.

These are subject to network load analysis once the development is built by the Mobile phone network providers.

Any future sites will be subject to standalone planning permissions.

## 6 ASSESSMENT

Assessment is based on Class 31, S.I. No. 600/2001 - Planning and Development Regulations, 2001, The following table reviews and assesses the development accordingly.

The following mobile phone and data coverage is noted as, see appendix 2 for details

- 2G, Comreg has noted as Fair
- 3G, Comreg has noted as Very Good
- 4G, Comreg has noted as Very Good to Good
- 5G, Roll out of the technology is continuing Comreg has not published coverage grades.

Table 1 Assessment of Telecommunications

| HEADING   | REQUIREMENT  | ASSESSMENT   |
|---|--|--|
| <p>The carrying out by a statutory undertaker authorised to provide a telecommunications service of development consisting of the provision of—</p>   |  |  |
| <p>(a) underground telecommunications structures or other underground telecommunications works (including the laying of mains and cables and the installation underground of any apparatus or equipment),</p> |  | <p>Development to provided by in ground ducts to the existing street infrastructure.<br/>Refer to EIR and Virgin Media drawings attached.<br/>Existing Overhead and in ground Ducted services exist in close proximity to the proposed development but do not enter or affect the proposed development</p> |
| <p>(b) overhead telecommunications,</p>   | <p>1. Poles carrying overhead lines shall not exceed 10 metres in height.</p>  | <p>No Pole is to be provided within the scope of the developments site boundary.<br/>Existing Overhead and in ground Ducted services exist in close proximity to the proposed development but do not enter or affect the proposed development</p>  |
|   | <p>2. Poles carrying other equipment shall not exceed 10 metres in height and 0.6 metres in diameter measured at the widest point, where “other equipment” means one transmitting or receiving dish (the diameter of which shall not exceed 0.3 metres), or one panel antenna (the dimensions of which shall not exceed 0.5 metres in length x 0.3 metres in width x 0.2 metres in depth) used for the provision of a specific telecommunications service and the provision of which would otherwise require an additional pole route carrying overhead wires.</p> | <p>No Pole is to be provided within the scope of the developments site boundary.<br/>Existing Overhead and in ground Ducted services exist in close proximity to the proposed development but do not enter or affect the proposed development</p>  |
|   | <p>3. Where a pole or poles carry radio transmitting or receiving apparatus, the field strength of the non-ionising radiation emissions from that installation shall not exceed the limits specified by the Director of Telecommunications Regulation.</p>   | <p>No Pole is to be provided within the scope of the developments site boundary.<br/>Existing Overhead and in ground Ducted services exist in close proximity to the proposed development but do not enter or affect the proposed development</p>  |

| HEADING   | REQUIREMENT  | ASSESSMENT  |
|---|--|---|
| (c) telephone kiosks or other telephone facilities in a public place not being on, over or along a public road, | No such kiosk or facility shall be situated within 10 metres of the curtilage of any house, save with the consent in writing of the owner or occupier thereof.   | No Kiosk or Facility is to be provided within the scope of the developments site boundary.  |
| (d) equipment for transmitting or receiving signals from satellites in space,                                   | 1. No such equipment shall exceed 10 metres in height  | No such commercial (non domestic) equipment is to be provided within the scope of the developments site boundary.   |
|   | 2. The diameter of any antenna shall not exceed 2 metres   | No such commercial (non domestic) equipment is to be provided within the scope of the developments site boundary  |
|   | 3. No such equipment shall be situated within 10 metres of the curtilage of any house save with the consent in writing of the owner or occupier thereof, or within 10 metres of the window of a workroom of any other structure  | No such commercial (non domestic) equipment is to be provided within the scope of the developments site boundary  |
| (e) permanent telecommunications exchange and radio station containers,   | 1. The equipment housed in the container shall be used exclusively for the purposes of concentrating and re-routing calls and the container shall not have attached to it or within it, whether visible or not, any antennae for the direct transmission or reception of mobile telephony or other telecommunications signals in such a way that the container would act as an antennae support structure. | No such equipment is proposed within the scope of the developments site boundary unless requested by Utility Provider based on estimated needs of the community they service, i.e. <b>support local Mobile Telecommunications</b> |
|   | 2. No such container shall exceed 10 metres in length, 3 metres in width or 3 metres in height.  | No such equipment is to be provided within the scope of the developments site boundary  |
|   | 3. No such container shall be situated within 10 metres of the curtilage of a house save with the consent in writing of the owner or occupier thereof, or within 10 metres of the window of a workroom of any other structure.   | No such equipment is to be provided within the scope of the developments site boundary  |



| HEADING  | REQUIREMENT   | ASSESSMENT   |
|--|---|--|
|  | 4. The field strength of the non-ionising radiation emissions from the radio station container shall not exceed the limits specified by the Director of Telecommunications Regulation.  | No such equipment is to be provided within the scope of the developments site boundary   |
| <b>(f) cabinets forming part of a telecommunications system,</b> | The volume above the ground-level of any such cabinet shall not exceed 2 cubic metres measured externally   | <p>Such equipment is to be provided within the scope of the developments site boundary.</p> <p>These are typically used as distribution and centres of wiring terminations, are street side, are approx. 1200x500x1400high.</p> <p>These have become sources of Art installations as directed by Local County Councils Arts Programmes.</p> <p>These are to be located in agreement of the Utility providers</p> |
| <b>(g) transportable radio installation,</b>                     | 1. The height of the structure for such an installation shall not exceed 15 metres in height and 2 metres in width at its widest point.   | No such equipment is to be provided within the scope of the developments site boundary   |
|  | 2. The installation may only be used—   |  |
|  | (a) to provide anticipated additional coverage at a sporting, social or other event, provided that the structure is not in place for more than 2 weeks before the event or for a period exceeding 8 weeks which shall include assembly and dismantling, | No such equipment is to be provided within the scope of the developments site boundary   |
|  | (b) for demonstration or simulation purposes, whether to demonstrate the visual effects of such structure in a particular location or to measure the output, and such structure shall be in place for a period of not more than 12 weeks, or            | No such equipment is to be provided within the scope of the developments site boundary   |
|  | (c) as a temporary replacement for a structure, which has been accidentally or otherwise incapacitated, and such structure shall be in place for a period of not more than 12 weeks.  | No such equipment is to be provided within the scope of the developments site boundary   |

| HEADING  | REQUIREMENT  | ASSESSMENT   |
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|  | 3. The planning authority in whose functional area the installation is placed shall be notified by the statutory undertaker in writing of the provision and purpose of such installation before it is made operational | No such equipment is to be provided within the scope of the developments site boundary   |
| <b>(h) the attachment of additional antennae to an existing antenna support structure,</b> | 1. The total number of such antennae shall not exceed 12, of which not more than 8 shall be dish type (whether shielded or not).   | Such antennae are to be provided within the scope of the developments site boundary, these are subject to finalised design of Utility Network Requirements, typically on commercial buildings to support local Mobile Telecommunications based on the needs of the local community, are subject to future planning permissions by the Utility Network providers  |
|  | 2. (a) The dimensions of any such antenna provided shall not exceed the greatest length, width or depth of any antenna for mobile telephony of corresponding type already attached to the structure.                   | No such antennae is to be provided within the scope of the developments site boundary  |
|  | (b) In any other case, the dimensions of any such antenna provided shall not exceed—   | No such antennae is to be provided within the scope of the developments site boundary  |
|  | (i) in the case of any panel type antenna, 1.5 metres in length × 0.4 metres in width × 0.15 metres in depth,  | Such antennae is to be provided within the scope of the developments site boundary subject to finalised design of Utility Network Requirements, typically on commercial and or apartment buildings to support local Mobile Telecommunications<br><br>Subject to final load analysis, please note, proposed locations for the mounting of Mobile phone stations are <ul style="list-style-type: none"> <li>• Creche, not exceeding 2nr.</li> <li>• Roof of Apartments, not exceeding 3 nr.</li> </ul> |
|  | (ii) in the case of any co-linear type antenna, 5 metres in length × 0.1 metres in diameter, and   | No such antennae is to be provided within the scope of the developments site boundary  |
|  | (iii) in the case of any dish type antenna (whether shielded or not), 1.8 metres in diameter.  | Such antennae is to be provided within the scope of the developments site boundary subject to finalised design of Utility Network Requirements, typically on commercial/ apartment buildings to support local Mobile Telecommunications  |

| HEADING  | REQUIREMENT  | ASSESSMENT  |
|--|--|---|
|  | 3. The attachment of such antennae shall not result in the field strength of the non-ionising radiation emissions from the site exceeding limits specified by the Director of Telecommunications Regulation.   | No such antennae is to be provided within the scope of the developments site boundary   |
|  | 4. The attachment of such antennae may be carried out by way of a platform only where the antenna support structure already incorporates a platform.   | No such antennae is to be provided within the scope of the developments site boundary   |
|  | 5. The height of the existing structure (including any antenna thereon) shall not be exceeded.   | No such antennae is to be provided within the scope of the developments site boundary<br>Refer to (b)(i) above  |
| <b>(i) antennae for high capacity transmission links by way of attachment to existing high capacity antennae support structures,</b> | 1. The addition shall be of the dish type antennae used for the sole purpose of point to point communication.  | Such antennae is to be provided within the scope of the developments site boundary subject to finalised design of Utility Network Requirements, typically on commercial buildings to support local Mobile Telecommunications based on the needs of the local community, are subject to future planning permissions by the Utility Network providers |
|  | 2. The additional antennae shall not exceed the number provided for in the existing design capacity of the support structure.  | No such antennae is to be provided within the scope of the developments site boundary.  |
|  | 3. No new member shall be added to the structure save by way of brackets or other fixing systems used for the attachment of the additional antennae  | No such antennae is to be provided within the scope of the developments site boundary.  |
|  | 4. The maximum diameter of any added antenna shall not exceed the width of the support structure at the point at which the additional antenna is attached  | No such antennae is to be provided within the scope of the developments site boundary.  |
|  | 5. The planning authority in whose functional area the support structure exists shall be notified by the statutory undertaker in writing of the attachment of any such additional antennae at least 4 weeks before the antenna or antennae are attached. | No such antennae is to be provided within the scope of the developments site boundary.  |

| HEADING  | REQUIREMENT   | ASSESSMENT   |
|--|---|--|
|  | 6. The attachment of such antenna shall not result in the field strength of the non-ionising radiation emissions from the radio installations on the site exceeding the limits specified by the Director of Telecommunications Regulation.  | No such antennae is to be provided within the scope of the developments site boundary. |
| <b>(j) an antenna support structure in place of an existing antenna support structure,</b> | 1. The replaced structure shall be removed no later than 4 weeks following its decommissioning.   | There are no existing structures to be replaced, not applicable.                       |
|  | 2. Where, for reasons of the integrity of the network or other operational reasons, the structure to be replaced remains in use during the construction of the replacement structure, the replacement structure shall be located as near as possible to the existing structure having regard to construction activity and safety requirements and, in any case, no replacement structure shall be located more than 20 metres from the replaced structure (measured from the base). | There are no existing structures to be replaced, not applicable.                       |
|  | 3. (a) The height of the replacement structure shall not exceed the height of the replaced structure.   | There are no existing structures to be replaced, not applicable.                       |
|  | (b)(i) Subject to sub-paragraph (ii), the width of the replacement structure shall not exceed the width of the replaced structure.  | There are no existing structures to be replaced, not applicable.                       |
|  | (ii) Where the replaced structure was 2 metres or less in width, the width of the replacement structure may not be more than twice the width of the replaced structure, all measurements to be taken at the widest point.   | There are no existing structures to be replaced, not applicable.                       |
|  | (c) Where the replaced structure did not incorporate an antenna platform, the replacement shall not incorporate such a platform.  | There are no existing structures to be replaced, not applicable.                       |

| HEADING | REQUIREMENT  | ASSESSMENT   |
|---------|--|--|
|         | 4.(a) Subject to sub-paragraph (b), the antennae to be attached to the replacement structure shall not exceed the number of antennae on the replaced structure.  | There are no existing structures to be replaced, not applicable. |
|         | (b) An additional 12 antennae for mobile telephony may be attached to the replacement structure, of which not more than 8 of the additional 12 shall be of the dish type (whether shielded or not).  | There are no existing structures to be replaced, not applicable. |
|         | 5. (a) The dimensions of any additional antenna for mobile telephony shall not exceed the greatest length, width or depth of any antenna for mobile telephony of corresponding type on the replaced structure.   | There are no existing structures to be replaced, not applicable. |
|         | (b) In any other case, the dimensions of any antenna provided shall not exceed:  | There are no existing structures to be replaced, not applicable. |
|         | (i) in the case of any panel type antenna, 1.5 metres in length × 0.4 metres in width × 0.15 metres in depth,  | There are no existing structures to be replaced, not applicable. |
|         | (ii) in the case of any co-linear type antenna, 5 metres in length × 0.1 metres in diameter, and   | There are no existing structures to be replaced, not applicable. |
|         | (iii) in the case of any dish type antenna (whether shielded or not), 1.8 metres in diameter.  | There are no existing structures to be replaced, not applicable. |
|         | 6. The replacement of an antenna support structure together with any replaced or additional antenna shall not result in the field strength of the non-ionising radiation emissions from the radio installations on the site exceeding the limits specified by the Director of Telecommunications Regulation. | There are no existing structures to be replaced, not applicable. |

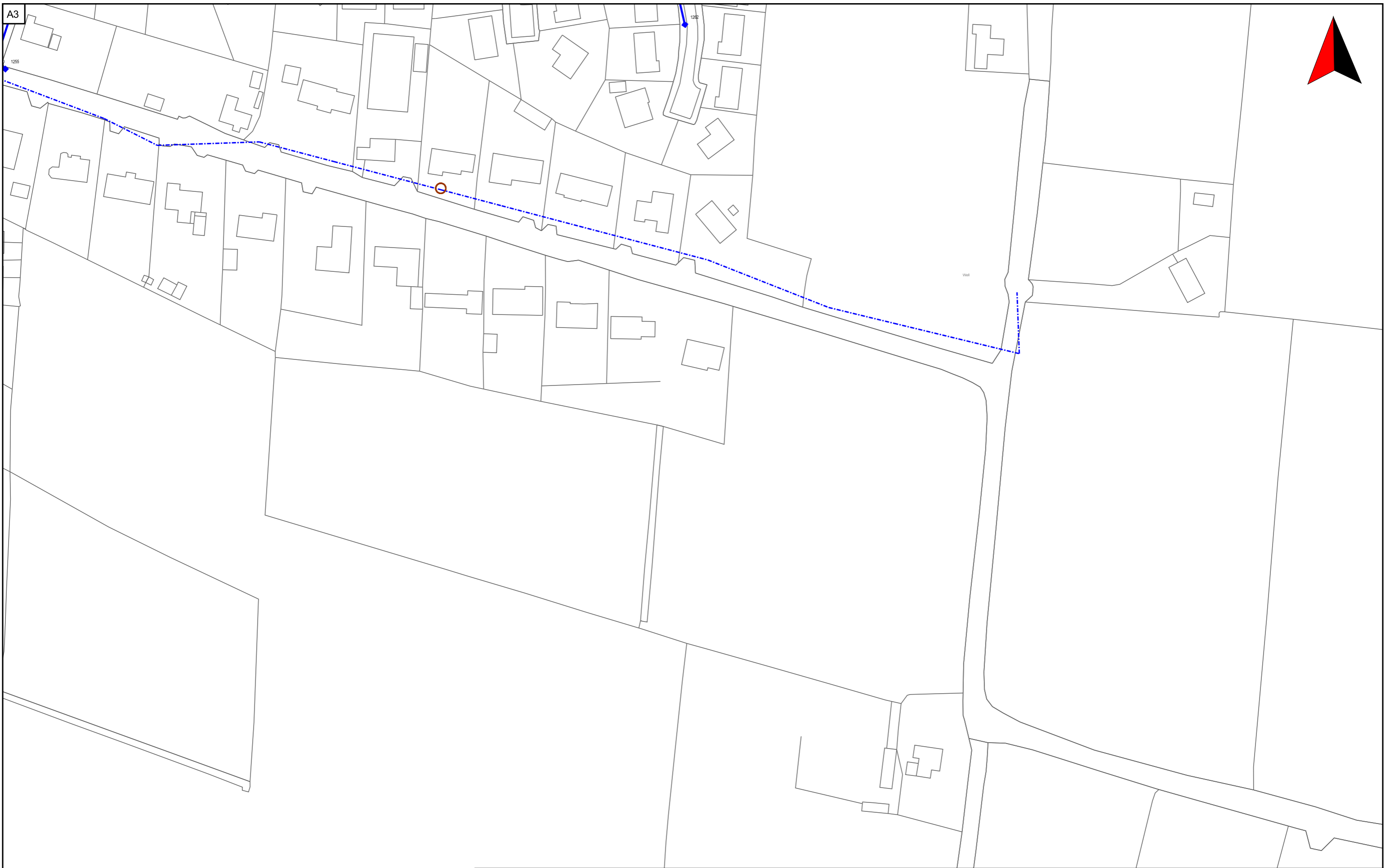
| HEADING  | REQUIREMENT  | ASSESSMENT                         |
|--|--|------------------------------------|
| <b>(k) antennae attached to the following existing structures-</b> | (i) public or commercial buildings (other than education facilities, childcare facilities or hospitals) by way of attachment to roofs, facades, chimneys, chimney pots or vent pipes;  | New Build, as such not applicable. |
|  | (ii) telegraph poles, lamp posts, flag poles, CCTV poles;  | New Build, as such not applicable  |
|  | (iii) electricity pylons.  | New Build, as such not applicable  |
|  | 1. The antenna shall be attached directly to the structure (other than a structure with a flat roof) and not by way of a supporting fixture.   | New Build, as such not applicable. |
|  | 2. In the case of a structure with a flat roof, a supporting fixture may be used provided that-  | New Build, as such not applicable  |
|  | (a) the fixture does not exceed the height of any existing parapet or railing on the roof by more than 2 metres, and   | New Build, as such not applicable. |
|  | (b) access to the roof is not available to any person other than a person authorised by the statutory undertaker.  | New Build, as such not applicable. |
|  | 3. Where an antenna is attached to the façade of a building or the exterior of a chimney or vent, the colour of the antenna shall match and blend with the colour of such façade, chimney or vent pipe.  | New Build, as such not applicable. |
|  | 4. Where the antenna is hidden inside a chimney pot the existing chimney pot may be replaced by a chimney pot in a suitable material which shall be the same colour, size and shape as the replaced pot, and the antenna shall not protrude beyond the top of the chimney pot. | New Build, as such not applicable. |

| HEADING | REQUIREMENT   | ASSESSMENT                         |
|---------|---|------------------------------------|
|         | 5. The planning authority in whose functional area the structure on which the antennae will be attached is situated shall be notified by the statutory undertaker in writing of the proposed location of any such structure at least 4 weeks before such attachment | New Build, as such not applicable. |
|         | 6. The field strength of any such antenna shall not result in the field strength of the non-ionising radiation emission from the radio installations on the site exceeding the limits specified by the Director of Telecommunications Regulation.                   | New Build, as such not applicable. |

# APPENDIX 1

Eir and Virgin Drawings





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Scale: 1:1500

Irish National Grid Co-Ordinates  
Centre XY: 302110 m, 250580 m

Date  
20/04/2021

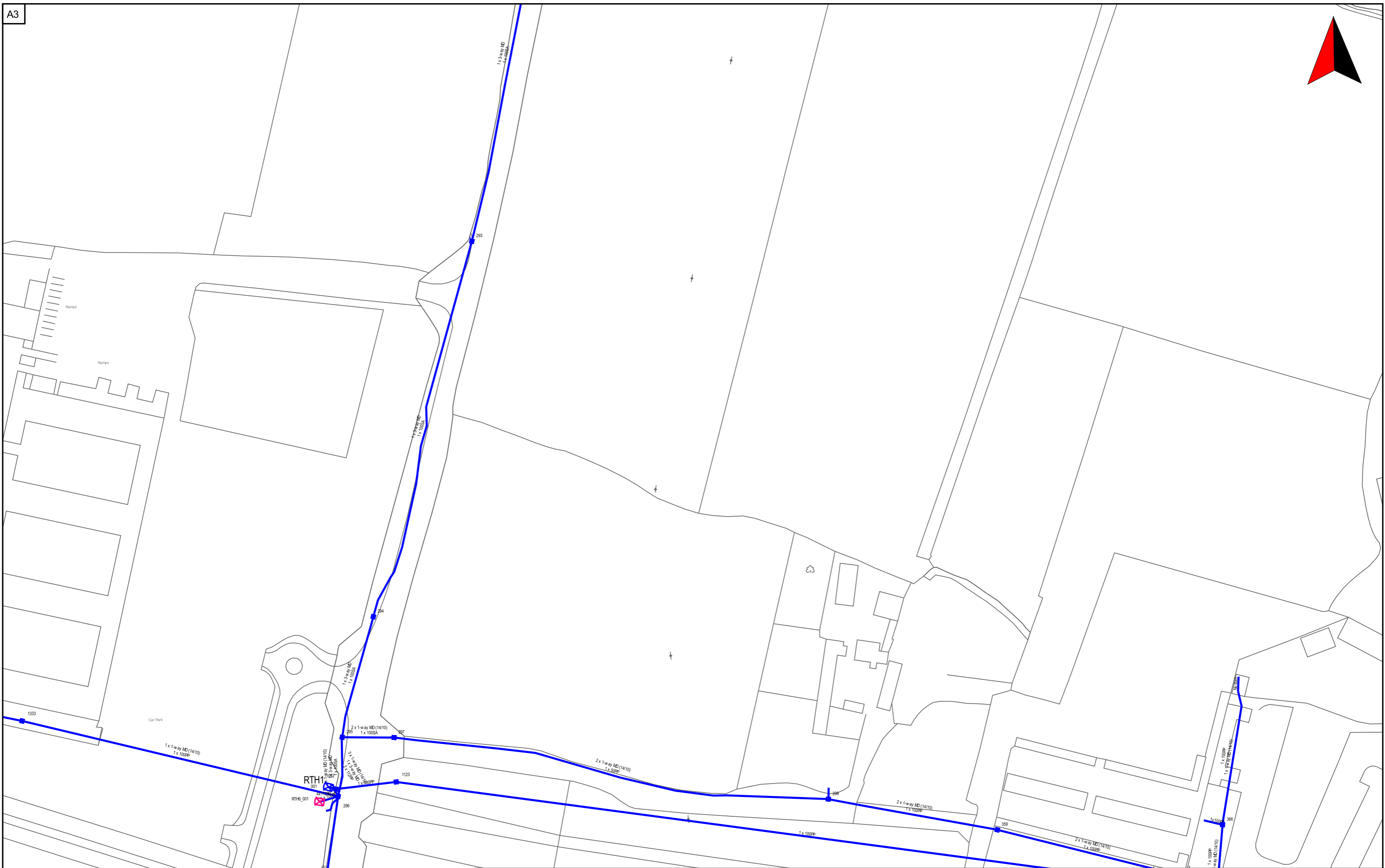
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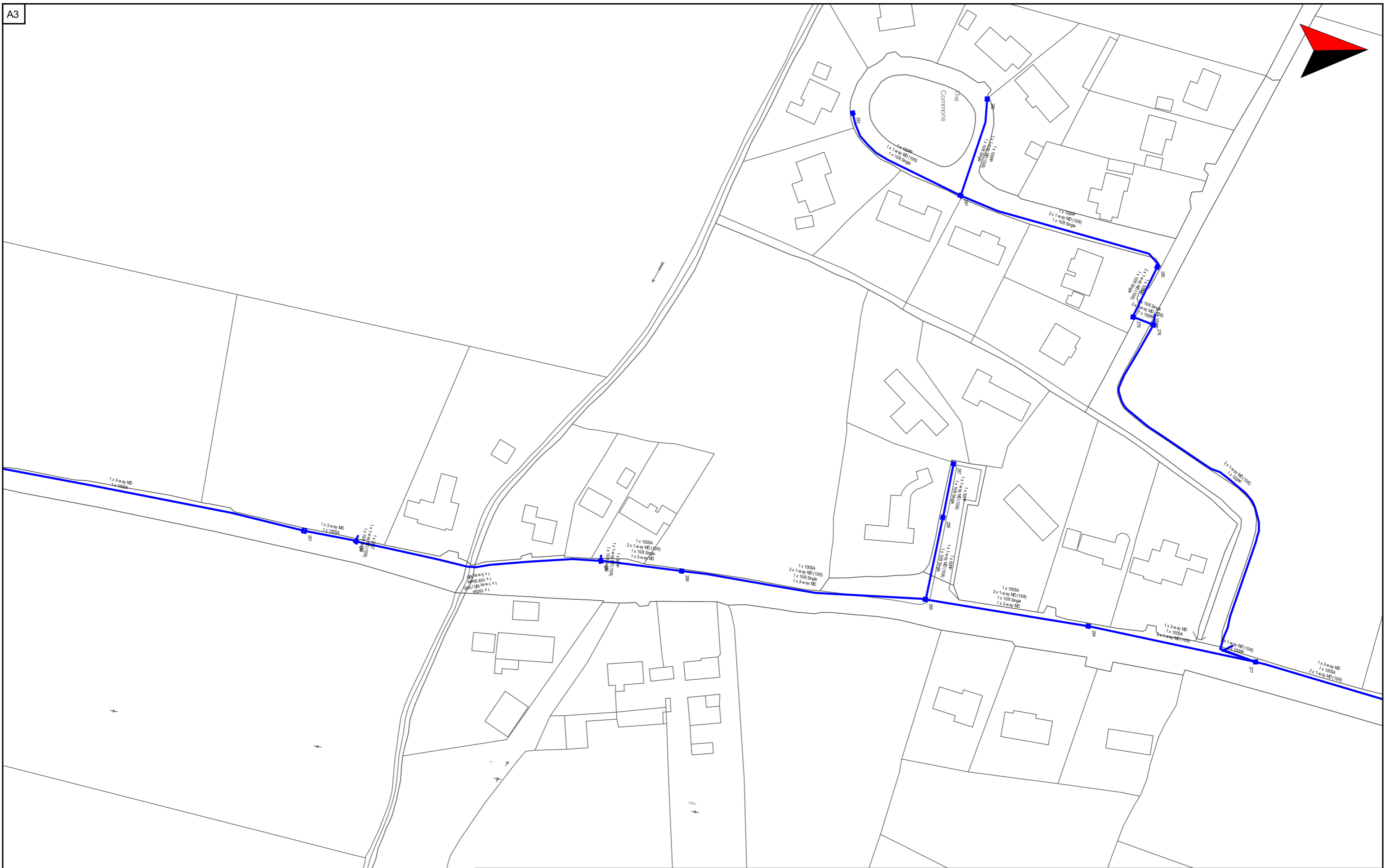
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Scale: 1:1500

Irish National Grid Co-Ordinates  
Centre XY: 301865 m, 250623 m

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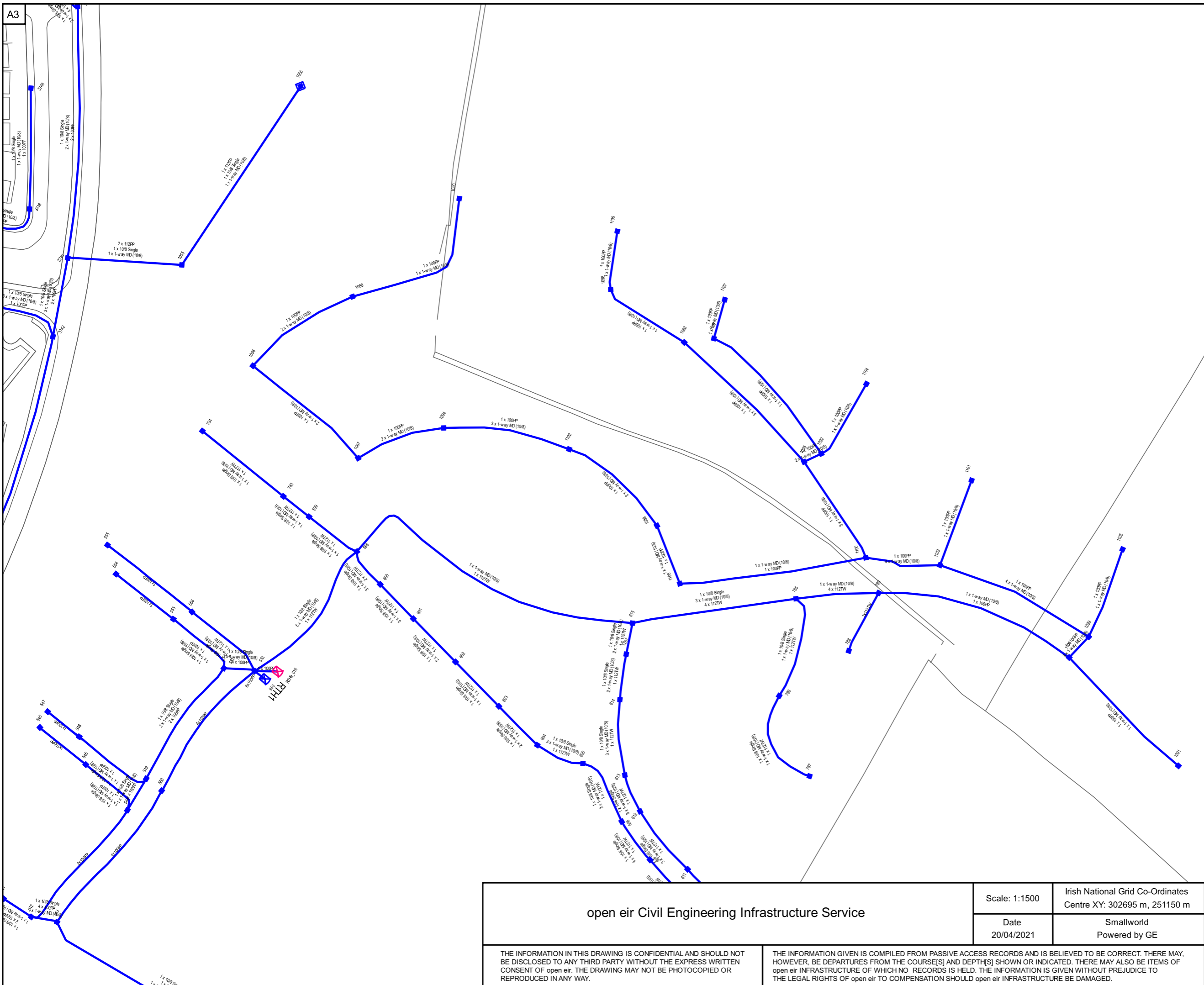
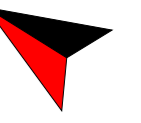


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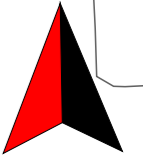
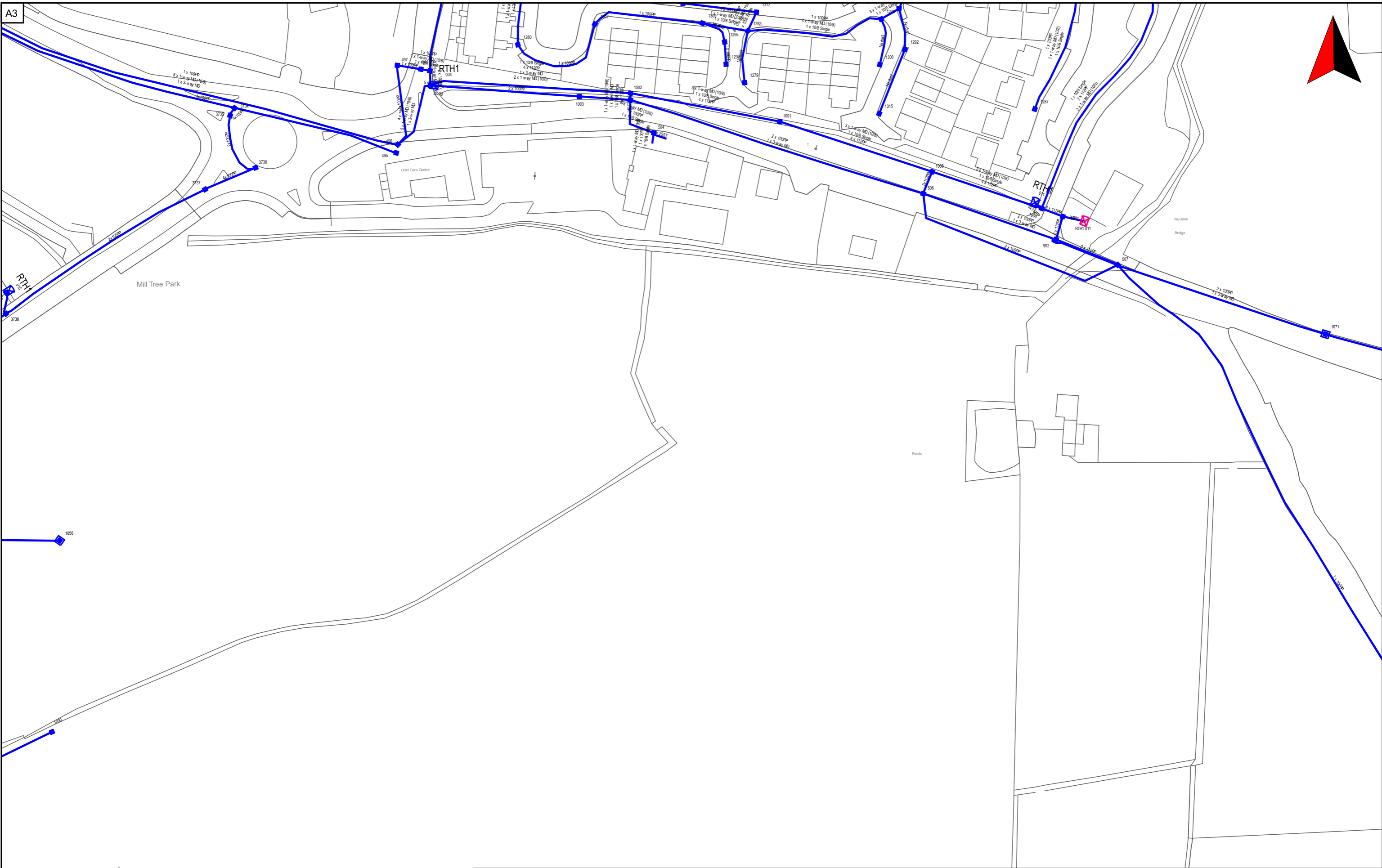
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| Date<br>20/04/2021 | Smallworld<br>Powered by GE                                       |



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A3

Mill Tree Park

RTM1

RTM1

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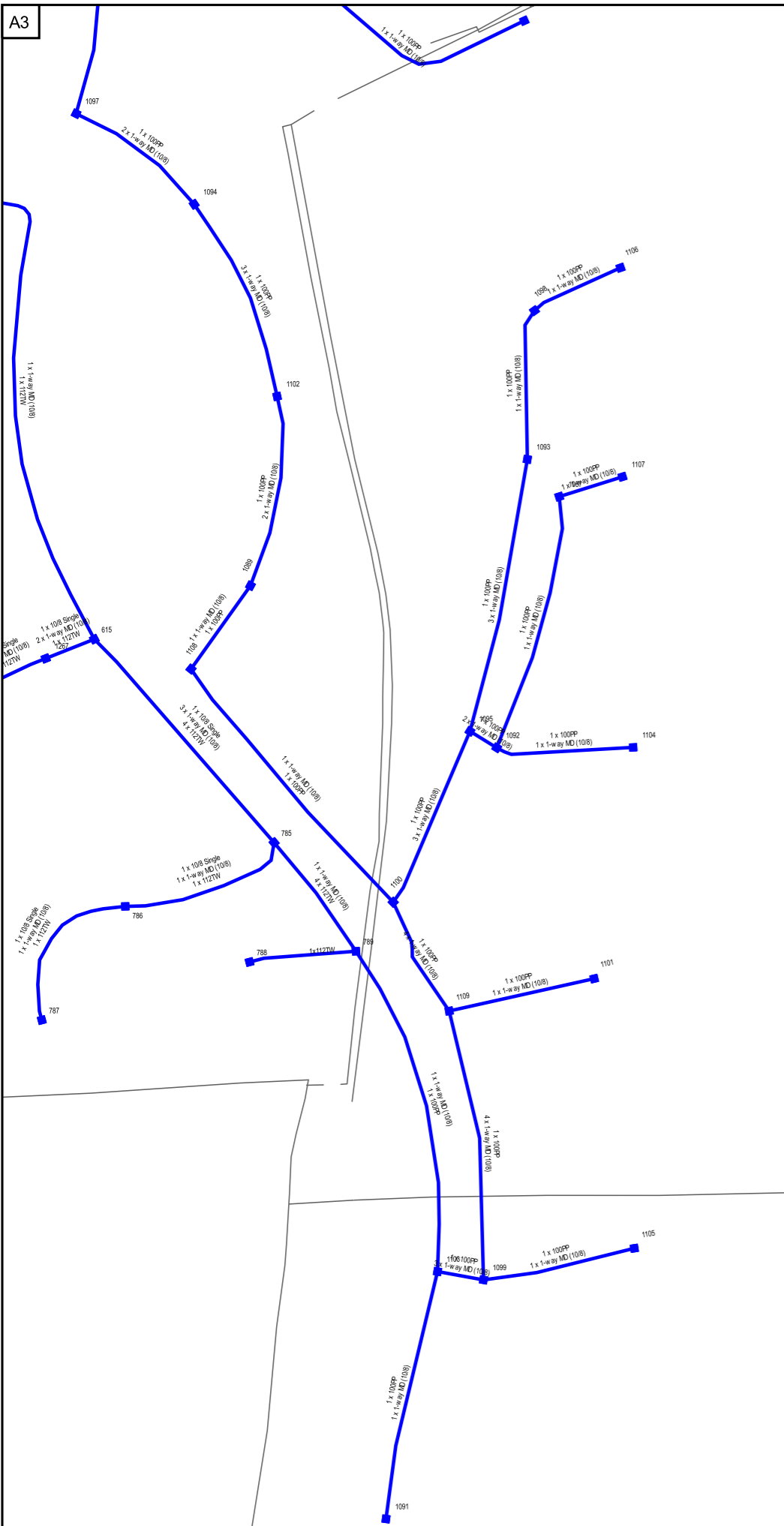
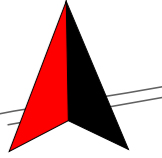
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Date  
20/04/2021

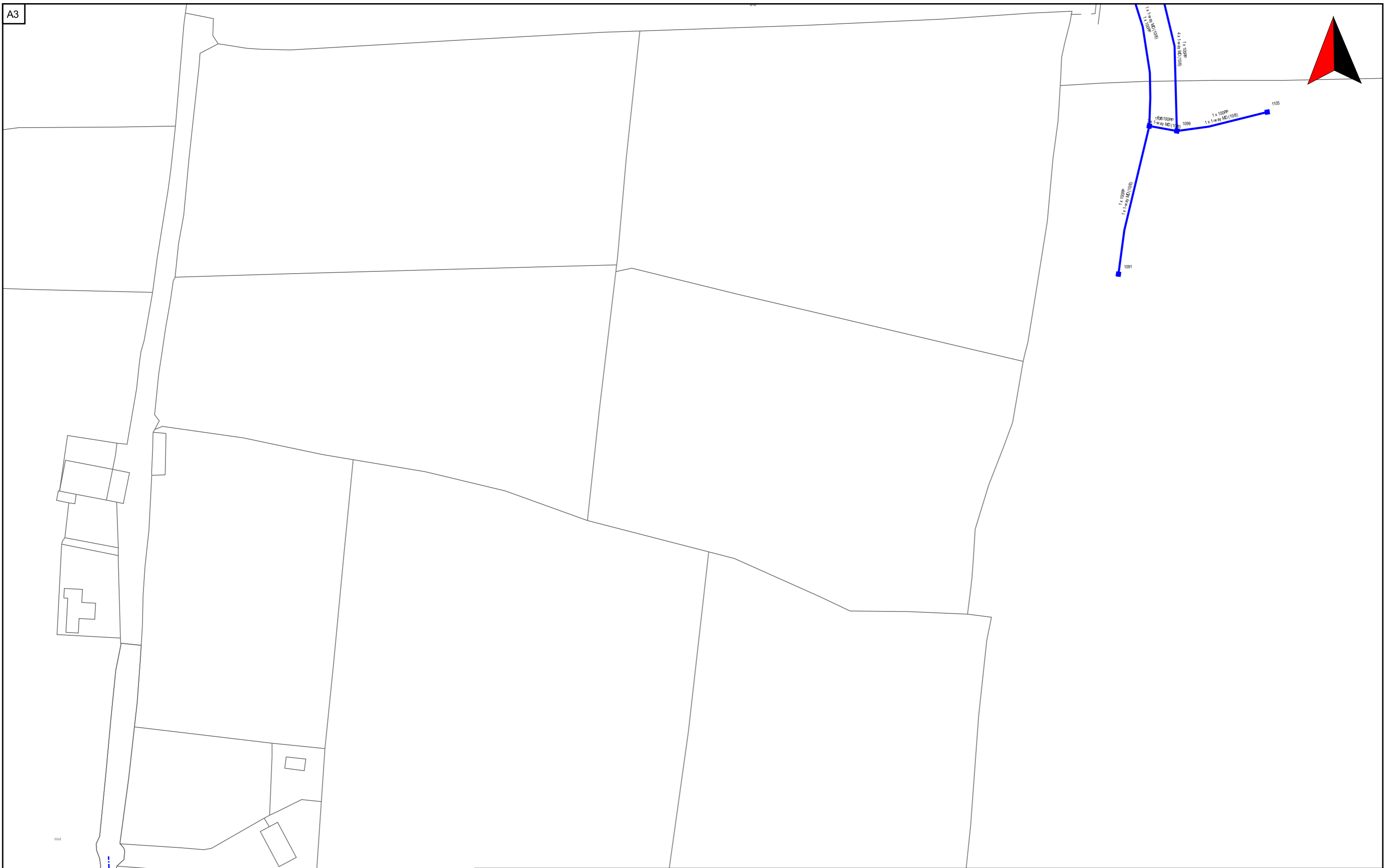
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Scale: 1:1500

Irish National Grid Co-Ordinates  
Centre XY: 302515 m, 250822 m

Date  
20/04/2021

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Scale: 1:1500

Irish National Grid Co-Ordinates  
Centre XY: 302411 m, 250458 m

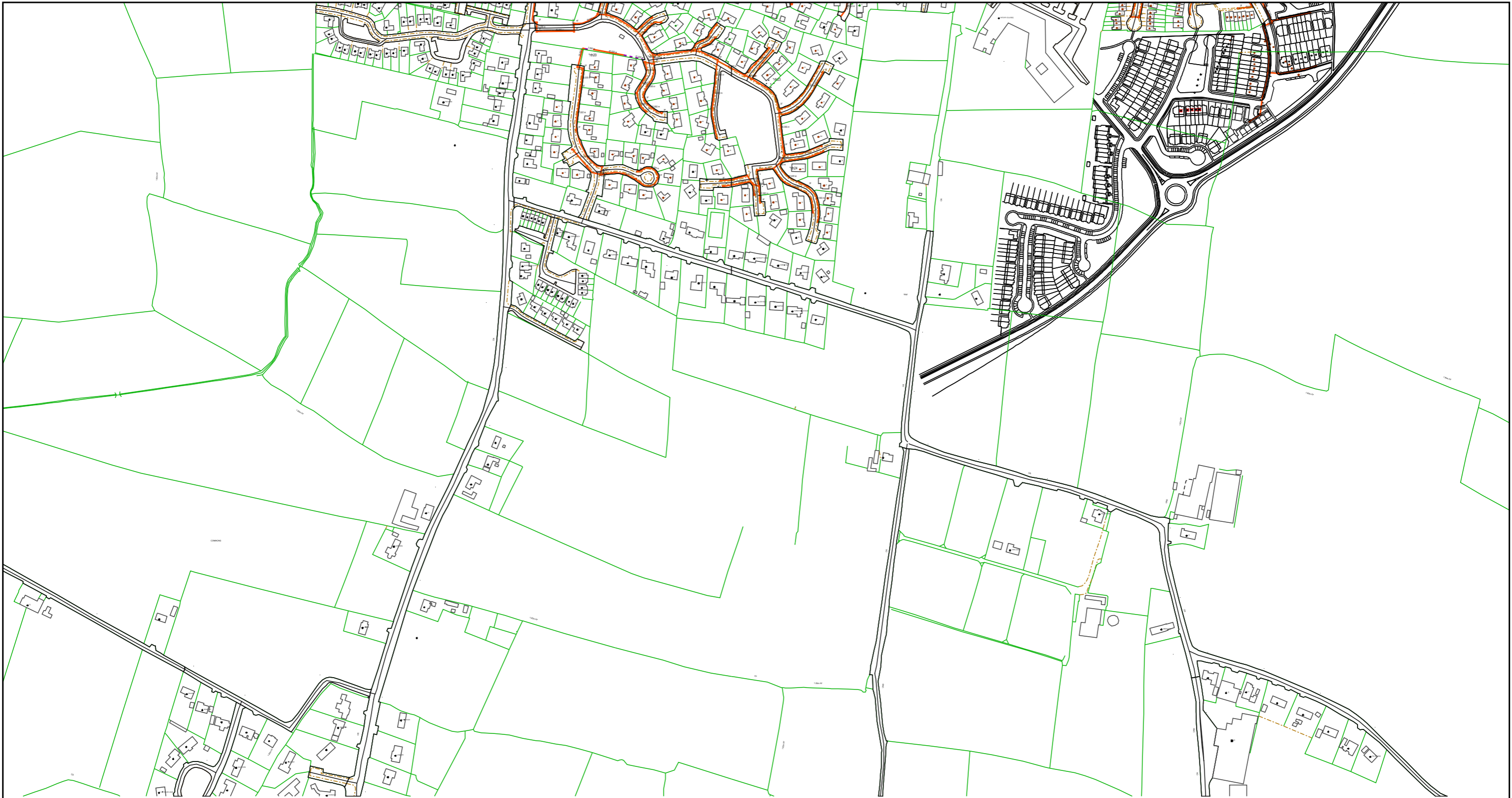
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Unit 7,  
Westgate Business Park,  
Ballymount,  
Dublin 24.

PROJECT NAME  
DESIGNED BY:

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Produced on: 20/04/2021



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## APPENDIX 2

### Cell Tower Locations and Mobile Coverage

Please note

- Cell Tower Data Obtained from <https://siteviewer.comreg.ie/#explore> 06<sup>th</sup> August 2021
- 2G, 3G, 4G coverage for all providers Data Obtained from <https://coveragemap.comreg.ie/map> 06<sup>th</sup> August 2021

Example of Coverage map



Note that Comreg has deemed that the coverage in Boherboy area is Good to Very Good by Comreg standards. The proposed Development will, in the main, fall into this same category.

There are 66nr Cell Tower Masts or Locations listed on Comregs site covering the Boherboy area and the proposed Development.

Based on the coverage as measured by ComReg, additional Cell Antennas will be required, these to be mounted on commercial and or apartments property only.



The 2G coverage is rated as Good by ComReg.



The 3G coverage is rated as Very Good by ComReg.





The 4G coverage is rated as Very Good/ Good by ComReg.

Three network coverage map, for 5G indicates coverage only

