



# OAKLANDS FARM SOLAR PARK

Applicant: Oaklands Farm Solar Ltd

Environmental Statement

Chapter 5 - Figures 5.1 – 5.5d

January 2024

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Infrastructure Planning (Application: Prescribed Forms and Procedure) Regulations 2009 - 5(2)(a)

**Oaklands Farm Solar  
Park - Environmental  
Statement Volume 2**  
**Chapter 5: Landscape  
and Visual Figures 5.1  
to 5.5**

**Final report**  
Prepared by LUC  
January 2024

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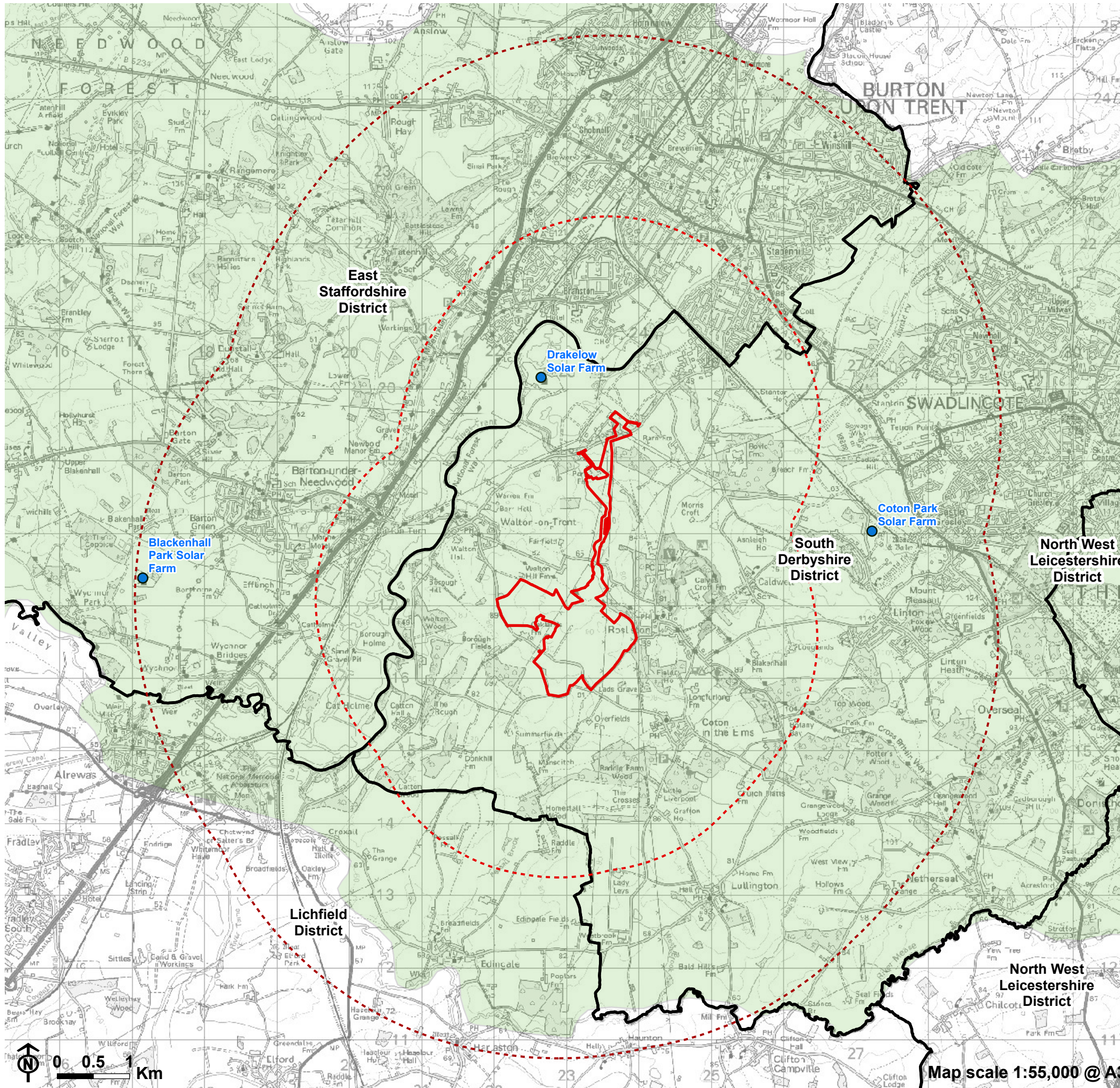
Figure 5.5c: Substation and Battery Storage Zone of Theoretical Visibility(Bare Earth) and Viewpoints

Figure 5.5d: Substation and Battery Storage Zone of Theoretical Visibility(Screened) and Viewpoints





Figure 5.1: Landscape and Visual Impact Assessment Study Area



- Site Boundary
- 2.5km from site boundary
- 5km from site boundary
- Local authority boundary
- National Forest
- Existing solar PV development



Map scale 1:55,000 @ A3

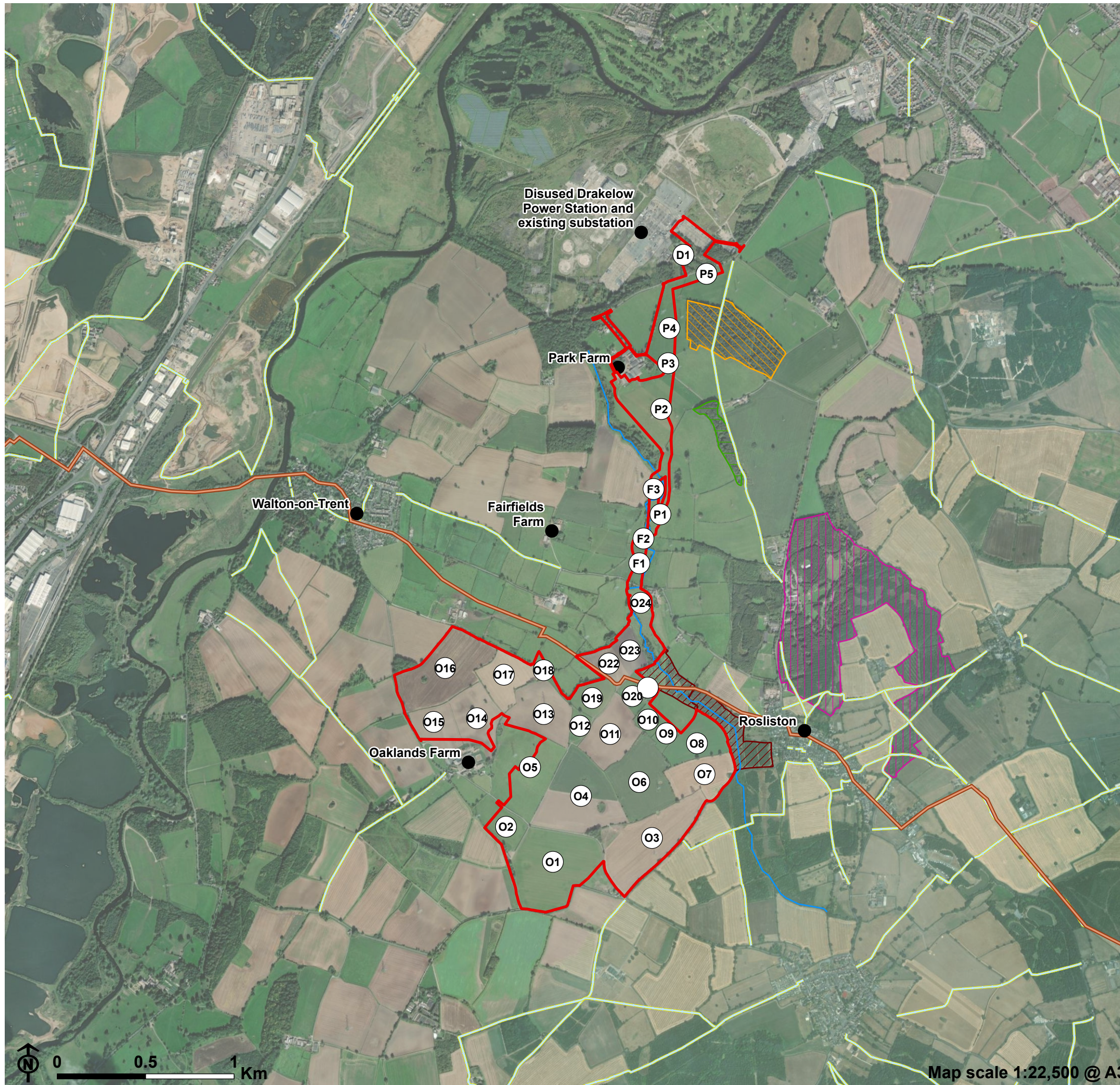
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Figure 5.2: Site Context



- Site Boundary
- Field number
- Pessall Brook
- Cross Britain Way / National Forest Way long distance footpath
- Public Rights of Way
- Grove Wood
- Hill Covert Wood
- Rosliston Forestry Centre
- Redfern's Wood



Map scale 1:22,500 @ A3

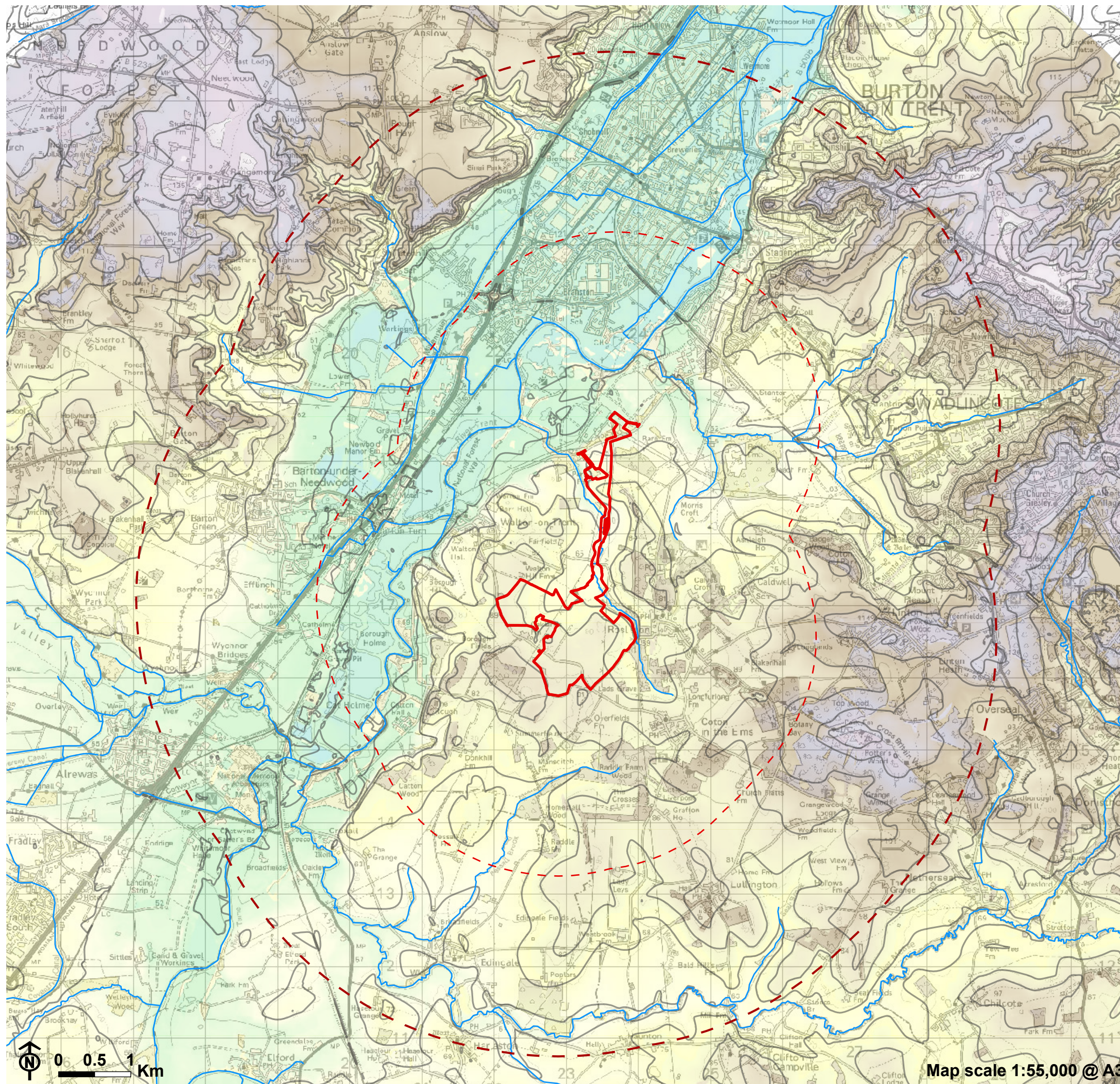
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Figure 5.3: Existing Topography within the Study Area



- Site Boundary
- 2.5km from site boundary
- 5km from site boundary
- Watercourse
- Contour 50m
- Elevation - metres AOD**
- High : 189.44
- Low : 37.49

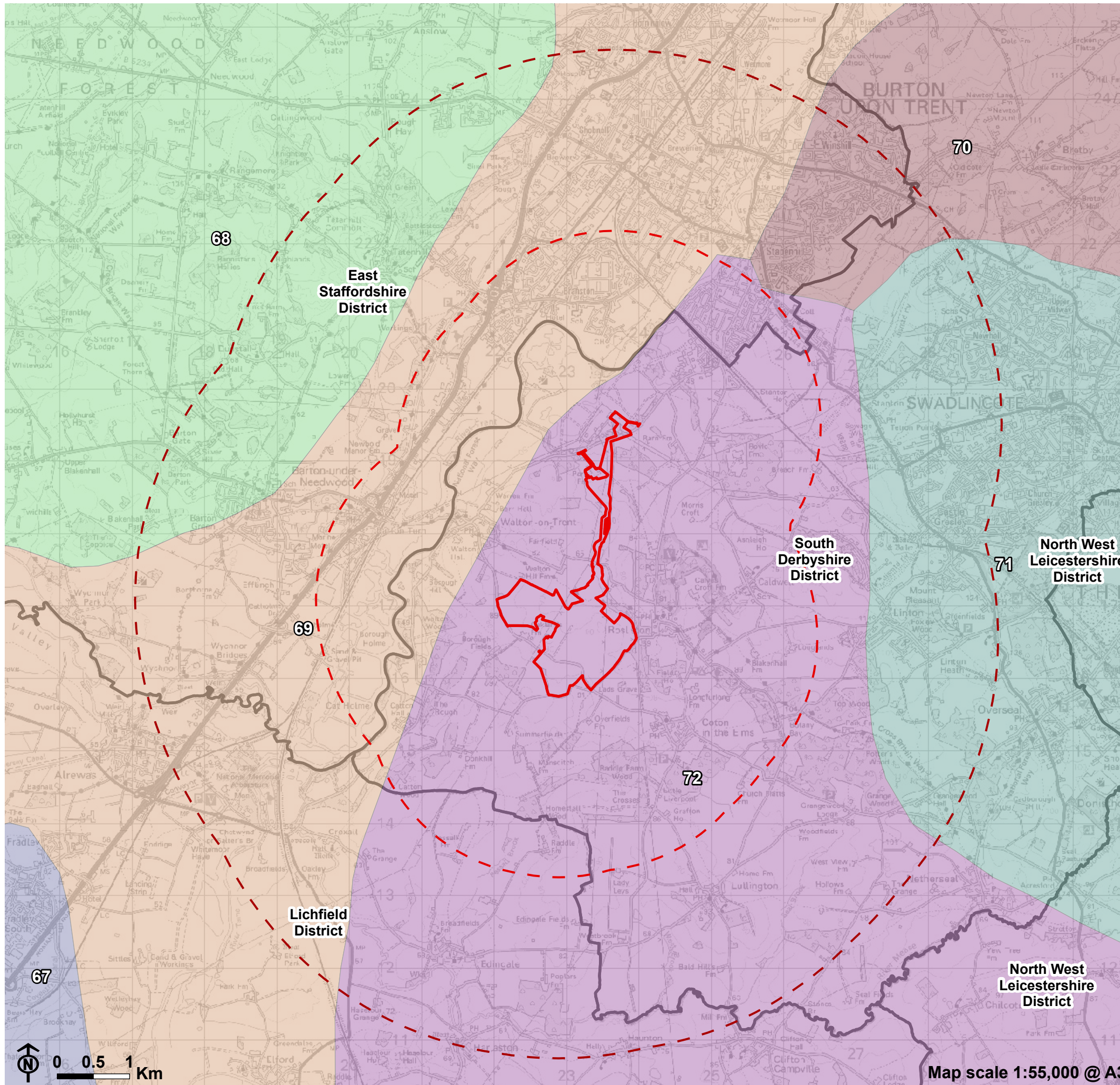
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Figure 5.4a: National Character Areas



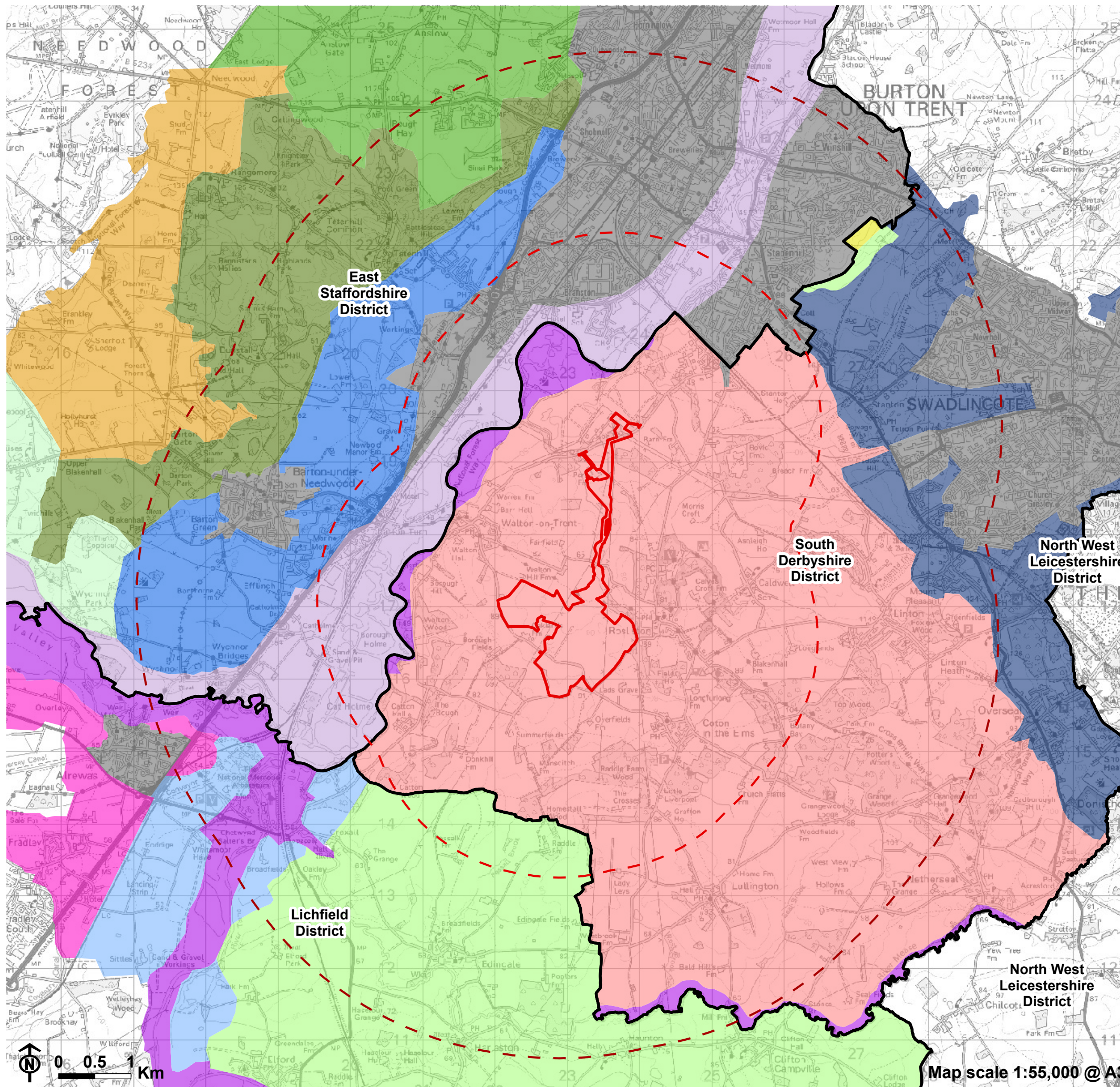
- Site Boundary
  - 2.5km from site boundary
  - 5km from site boundary
  - Local authority boundary
- National Character Area**
- 67: Cannock Chase and Cank Wood
  - 68: Needwood and South Derbyshire Claylands
  - 69: Trent Valley Washlands
  - 70: Melbourne Parklands
  - 71: Leicestershire and South Derbyshire Coalfield
  - 72: Mease/Sence Lowlands







Figure 5.4b: Landscape Character Types



- Site Boundary
- 2.5km from site boundary
- 5km from site boundary
- Local authority boundary
- South Derbyshire District LCT**
- Estate Farmlands
- Coalfield Village Farmlands
- River Meadows
- Sandstone Slopes and Heaths
- Village Estate Farmlands
- Urban
- East Staffordshire District LCT**
- Riparian Alluvial Lowlands
- Surveyor-enclosed Plateau Farmlands
- Settled Plateau Farmlands (Estatelands sub-type)
- Settled Plateau Farmland Slopes
- Settled Farmlands
- Terrace Alluvial Lowlands
- Urban
- Lichfield District LCT**
- Estate Farmlands
- Lowland Village Farmlands
- River Terrace Farmlands
- River Meadows
- Urban

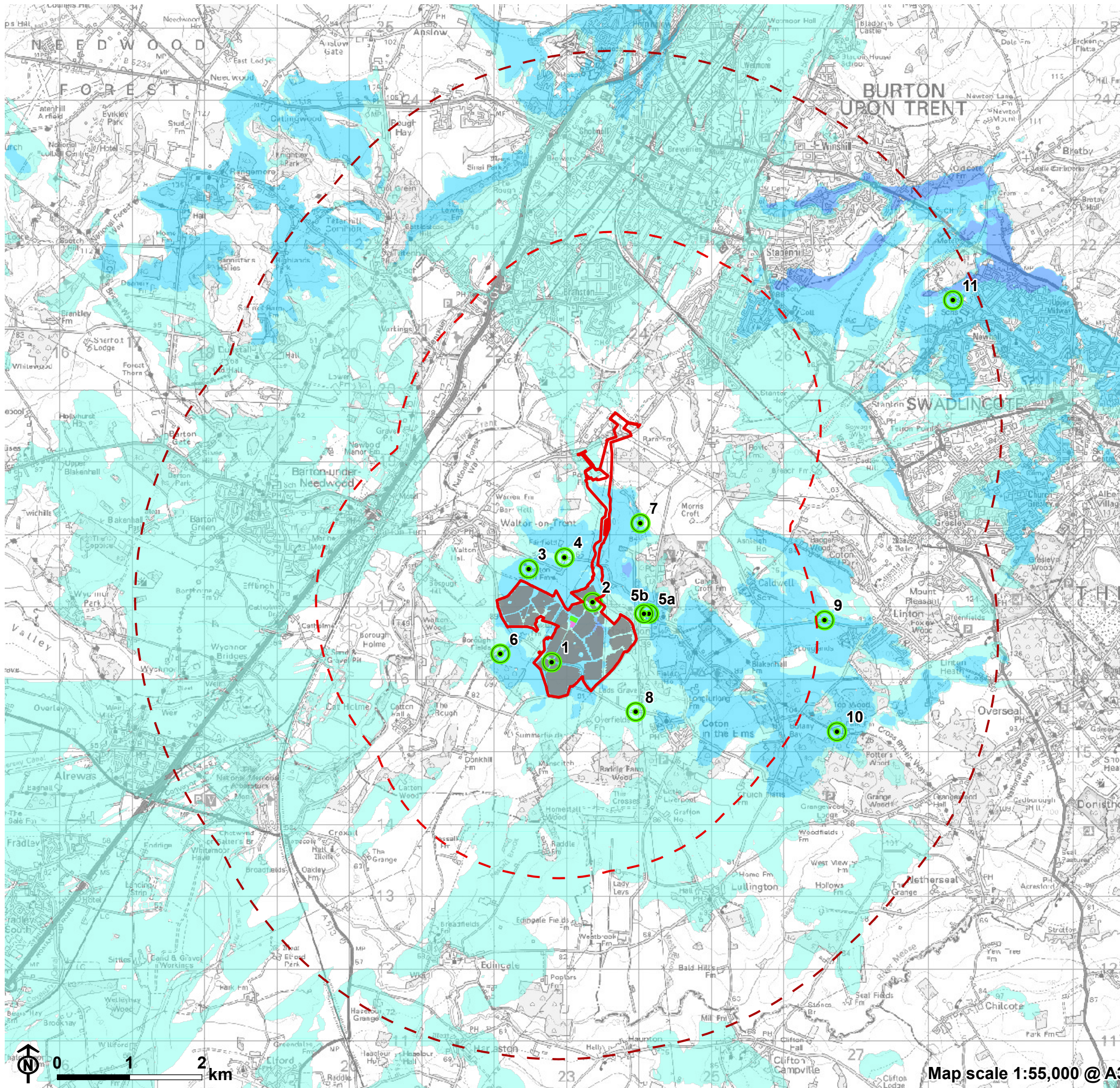
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**Figure 5.5a: PV Panels Zone of Theoretical Visibility (Bare Earth) and Viewpoints**



- Site Boundary
- 2.5km from site boundary
- 5km from site boundary
- PV panel
- Battery storage area
- Substation area

- Zone of theoretical visibility**
- Higher theoretical visibility
  - Lower theoretical visibility

- Viewpoint
- |   |   |
|---|---|
| 1: Cotton Road                                | 7: Footpath south of Hill Covert            |
| 2: Cross Britain Way                          | 8: Church Street (near Cotton in the Elms)  |
| 3: Cross Britain Way (near Walton Hill Farm)  | 9: Cauldwell Road / Bridleway to Manor Farm |
| 4: Rosliston Road / Footpath (near Fairfield) | 10: National Forest Way (at Park Farm)      |
| 5a: The Chase, Rosliston                      | 11: Sunnyside, Newhall                      |
| 5b: Footpath west of The Chase, Rosliston     |   |
| 6: Bridleway / footpath by Borough Fields     |   |

The ZTV indicates the theoretical visibility of the PV solar panels at a maximum height of 2.7m from a viewing height of 2m above ground level. The terrain model is based on OS Terrain 5 digital terrain model (DTM) data (5m grid, obtained from BayWa 2021). It does not account for any natural or built screening features and assumes bare earth. Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcGIS Pro 3.0.3 software.

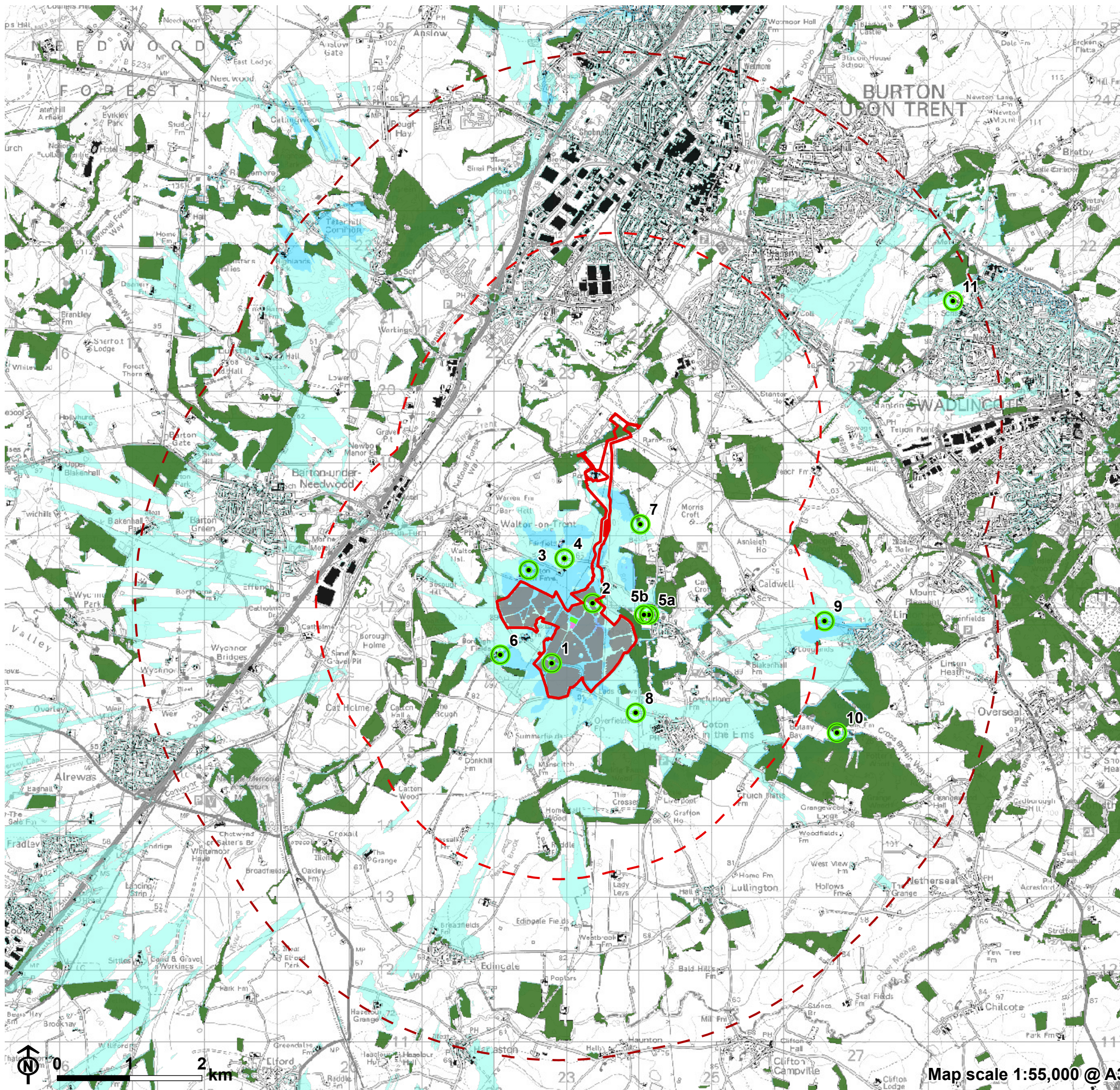
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**Figure 5.5b: PV Panels Zone of Theoretical Visibility (Screened) and Viewpoints**



- Site Boundary
- 2.5km from site boundary
- 5km from site boundary
- PV panel
- Battery storage area
- Substation area
- Existing building
- Existing woodland
- Zone of theoretical visibility**
- Higher theoretical visibility
- Lower theoretical visibility
- Viewpoint

- |   |   |
|---|---|
| 1: Coton Road                                 | 7: Footpath south of Hill Covert            |
| 2: Cross Britain Way                          | 8: Church Street (near Coton in the Elms)   |
| 3: Cross Britain Way (near Walton Hill Farm)  | 9: Cauldwell Road / Bridleway to Manor Farm |
| 4: Rosliston Road / Footpath (near Fairfield) | 10: National Forest Way (at Park Farm)      |
| 5a: The Chase, Rosliston                      | 11: Sunnyside, Newhall                      |
| 5b: Footpath west of The Chase, Rosliston     |   |
| 6: Bridleway / footpath by Borough Fields     |   |

The ZTV indicates the theoretical visibility of the PV solar panel at a maximum height of 2.7m from a viewing height of 2m above ground level.

The terrain model is based on OS Terrain 5 digital terrain model (DTM) data (5m grid, obtained from BayWa 2021). The DTM was edited to create an indicative Digital Surface Model (DSM), incorporating:

- Existing buildings, based on OSVML building data with an assumed height of 8m for each building.
  - Existing woodland, based on the woodland category of the Forestry Commission NFI 2020 dataset, with an assumed height of 15m for each type of woodland ( 'Assumed woodland' , 'Broadleaved' , 'Conifer' , 'Mixed mainly broadleaved' , 'Mixed mainly conifer' ), irrespective of age. Hedgerows are not modelled.
- Earth curvature and atmospheric refraction have been taken into account.

The ZTV was calculated using ArcMap 10.8.1 software.

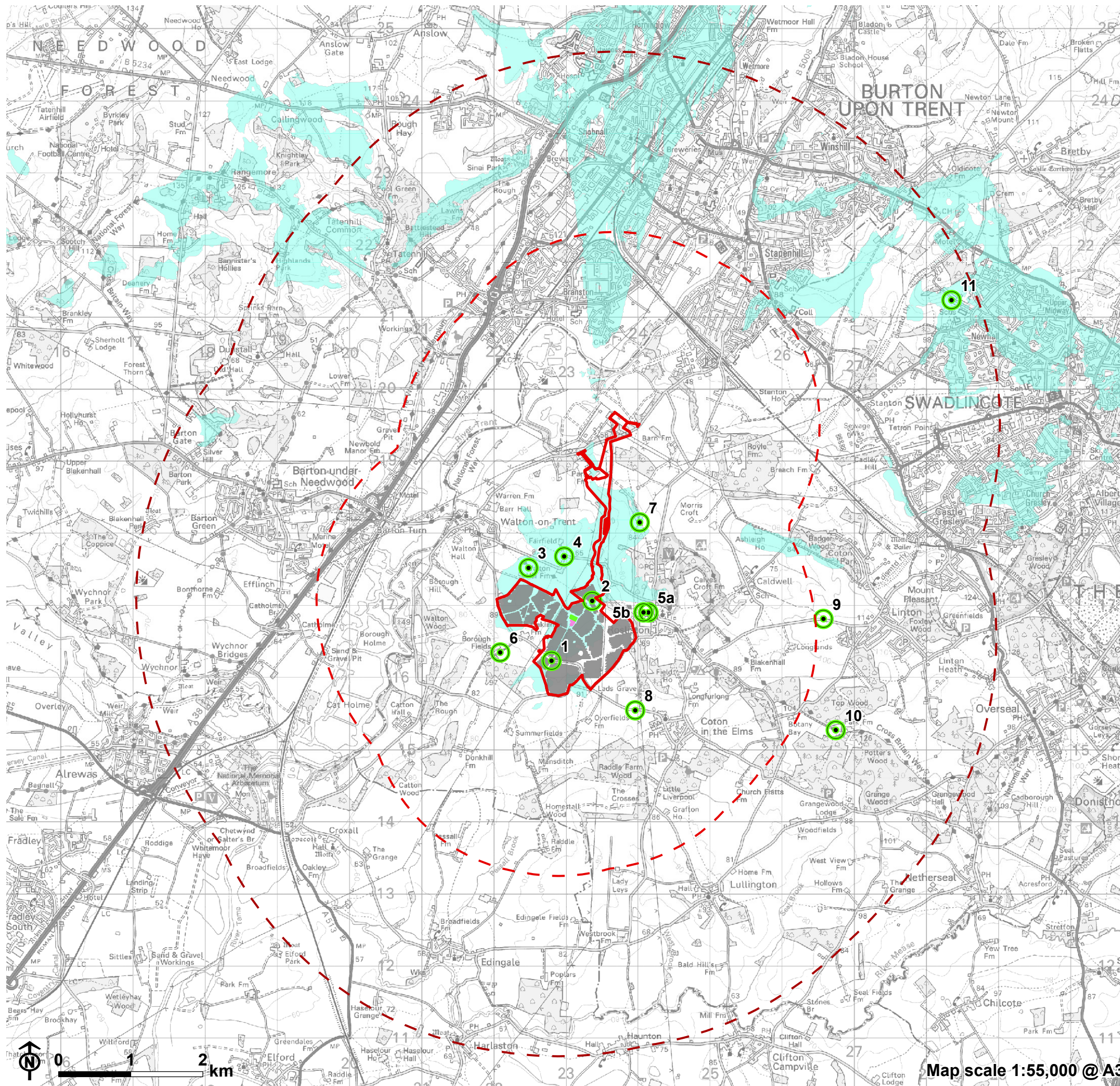
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**Figure 5.5c: Substation and Battery Storage Zone of Theoretical Visibility (Bare Earth) and Viewpoints**



- Site Boundary
- 2.5km from site boundary
- 5km from site boundary
- PV panel
- Battery storage area
- Substation area
- Zone of theoretical visibility**
- Higher theoretical visibility
- Lower theoretical visibility

- Viewpoint
- 1: Cotton Road
- 2: Cross Britain Way
- 3: Cross Britain Way (near Walton Hill Farm)
- 4: Rosliston Road
- 5: The Chase, Rosliston
- 6: Bridleway / footpath by Borough Fields
- 7: Footpath south of Hill Covert
- 8: Church Street (near Cotton in the Elms)
- 9: Cauldwell Road / Bridleway to Manor Farm
- 10: National Forest Way (at Park Farm)
- 11: Sunnyside, Newhall

The ZTV indicates the theoretical visibility of the substation and battery storage zone at a maximum height of 10.2m from a viewing height of 2m above ground level.

The terrain model is based on OS Terrain 5 digital terrain model (DTM) data (5m grid, obtained from BayWa 2021). It does not account for any natural or built screening features and assumes bare earth.

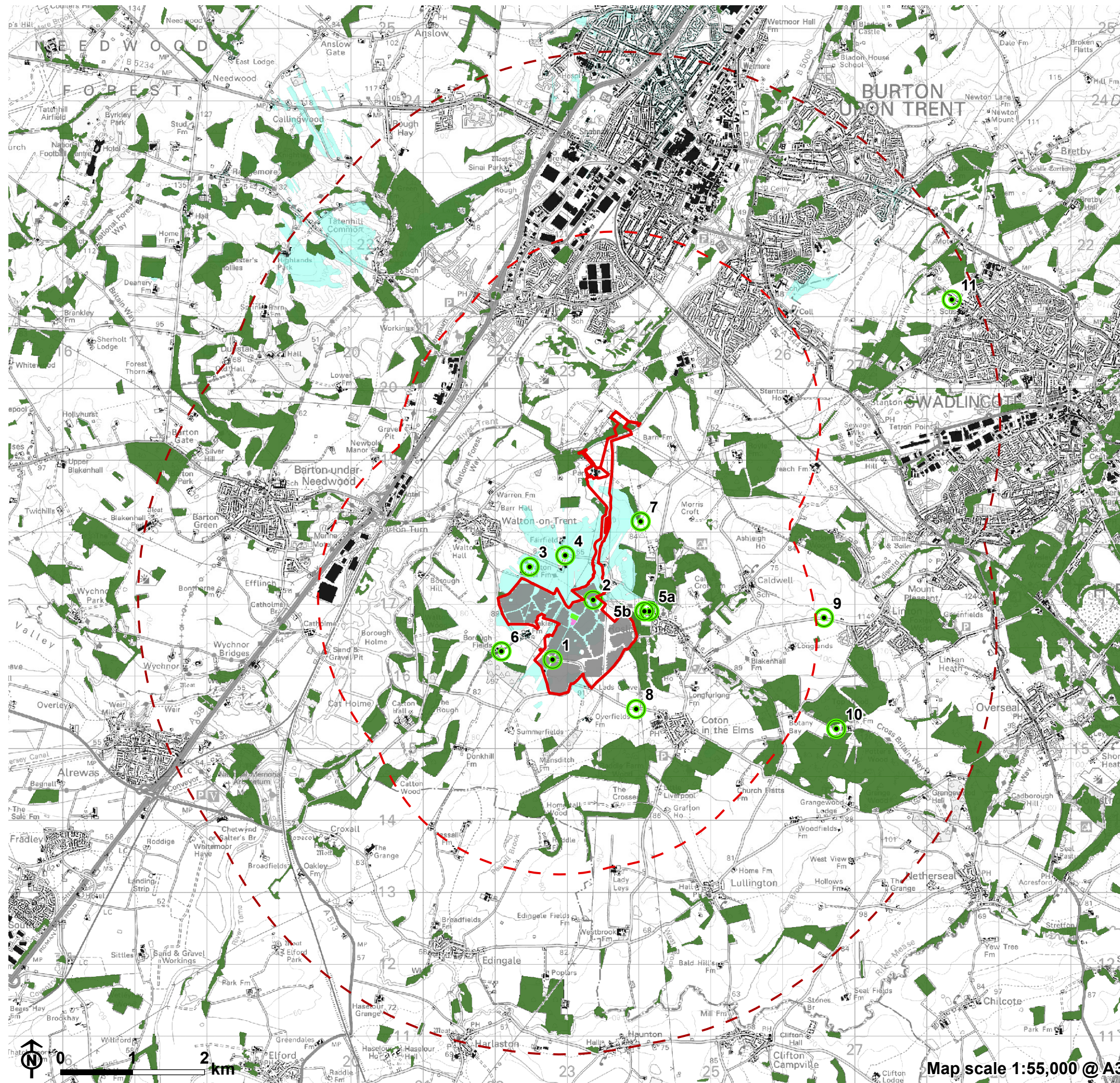
Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcGIS Pro 3.0.3 software.







**Figure 5.5d: Substation and Battery Storage Zone of Theoretical Visibility (Screened) and Viewpoints**



- Site Boundary
- 2.5km from site boundary
- 5km from site boundary
- PV panel
- Battery storage area
- Substation area
- Existing building
- Existing woodland
- Zone of theoretical visibility**
- Higher theoretical visibility
- Lower theoretical visibility
- Viewpoint

- |   |   |
|---|---|
| 1: Coton Road                                 | 7: Footpath south of Hill Covert            |
| 2: Cross Britain Way                          | 8: Church Street (near Coton in the Elms)   |
| 3: Cross Britain Way (near Walton Hill Farm)  | 9: Cauldwell Road / Bridleway to Manor Farm |
| 4: Rosliston Road / Footpath (near Fairfield) | 10: National Forest Way (at Park Farm)      |
| 5a: The Chase, Rosliston                      | 11: Sunnyside, Newhall                      |
| 5b: Footpath west of The Chase, Rosliston     |   |
| 6: Bridleway / footpath by Borough Fields     |   |

The ZTV indicates the theoretical visibility of the substation and battery storage zone at a maximum height of 10.2m from a viewing height of 2m above ground level.

The terrain model is based on OS Terrain 5 digital terrain model (DTM) data (5m grid, obtained from BayWa 2021). The DTM was edited to create an indicative Digital Surface Model (DSM), incorporating:

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- Earth curvature and atmospheric refraction have been taken into account.

The ZTV was calculated using ArcMap 10.8.1 software.



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