



# Pearmtree Hill Solar Farm

## Environmental Statement

### Volume 4

### Appendix 15.2: Cumulative Landscape and Visual Impact Assessment

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Planning Act 2008  
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(Applications: Prescribed Forms  
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# 1 INTRODUCTION

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1.1.1 The inter-project cumulative effects assessment for Landscape and Visual for the five identified other existing and/or approved solar farm developments below are detailed in full in Table 15-3 of **ES Volume 2, Chapter 15: Cumulative Effects [EN01015/APP/6.2]**:

- 22/01208/STPLF Kenley House Solar Farm;
- 22/00824/STPLF Field House Solar Farm;
- 21/02335/STPLF Creyke Beck Solar Farm;
- 22/02775/STPLF Turf Carr Solar Farm; and
- 22/03648/STPLF Carr Farm Solar Farm.

## 2 STUDY AREA (ZONE OF INFLUENCE)

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- 2.1.1 The Zones of Theoretical Visibility (ZTVs) presented in **Appendix A** of this document demonstrate that visibility of the Proposed Development is largely restricted to a distance of 1km from the Order Limits. Although potential visibility does occasionally extend beyond 1km from the Order Limits.
- 2.1.2 In addition, the assessment presented in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** also details the lack of visibility of the Proposed Development from more than 1km from the Order Limits.
- 2.1.3 The agreed study area for the assessment of landscape and visual effects was 3km from the Order Limits enclosing above ground infrastructure and no significant landscape or visual effects were identified on receptors further than 1km from the Order Limits. Therefore a 5km Zol for cumulative and landscape visual effects would be sufficient to identify all potential significant cumulative effects, including sequential effects on linear receptors.
- 2.1.4 Cumulative Landscape and Visual Impact Assessment (LVIA) is based on best practice and information in Guidelines for Landscape and Visual Impact Assessment 3 (GLVIA3), which is the established industry-standard guidance for landscape and visual impact assessment. Paragraph 7.5 of GLVIA3 states that with respect to cumulative assessment:
- “It is always important to remember that the emphasis on EIA is on likely significant effects rather than on comprehensive cataloguing of every conceivable effect that might occur”.*
- 2.1.5 **Paragraph 7.10 states:**
- “In most cases the focus of the cumulative assessment will be on the additional effect of the project in conjunction with other developments of the same type. In some cases, development of another type or types will be relevant and may help to give a more complete picture of the likely significant cumulative effects.”*
- 2.1.6 Not all of the planning applications detailed in the short list presented in Table 15-3 of **ES Volume 2, Chapter 15: Cumulative Effects [EN010157/APP/6.2]** are relevant to the cumulative LVIA. For instance proposed developments relating to residential development within the context of a settled landscape away from the immediate vicinity of the Order Limits would not be considered within the cumulative LVIA because residential development is not similar to, or relates to, the Proposed Development; and residential development would not be viewed or considered within the same context as the proposed solar infrastructure.
- 2.1.7 In these circumstances a detailed cumulative LVIA is not required for all the developments within the short-list. If a development is not included in the CLIVA, the reasoning for this is stated within Table 15-3 of **ES Volume 2, Chapter 15: Cumulative Effects [EN010157/APP/6.2]**. Where the development has not been





considered within the cumulative LVIA there would not be any significant cumulative landscape or visual effects.

### 3 CUMULATIVE LANDSCAPE AND VISUAL EFFECTS

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- 3.1.1 A series of combined ZTVs have been prepared for each of the other existing and/or approved solar farm developments on the short list and within the cumulative Landscape and Visual Impact Assessment (LVIA); these are presented in **Appendix A**. On grounds of proportionality, the combined ZTVs have focused on the combined potential visual effects arising from solar photovoltaic (PV) modules only (i.e. whilst it is recognised that these identified other existing and/or approved developments may have small amounts of ancillary infrastructure that is taller, and therefore theoretically more visible, than the solar PV modules, these are only small elements of the identified other existing and/or approved developments). For all of the ZTVs, the maximum height of solar PV modules for the identified other existing and/or approved development was obtained from the planning applications. Whilst the ZTVs are based on the solar PV modules only the cumulative LVIA does consider all elements of the various other existing and/or approved development, with the ZTVs used to provide a useful indicator of potential visual receptors impacted by the Proposed Development and identified other existing and/or approved development.
- 3.1.2 For the purposes of the cumulative LVIA, it is assumed that the Proposed Development would be constructed as per the current development proposals, as detailed in **ES Volume 1, Chapter 3: Proposed Development Description [EN010157/APP/6.1]**. However, the screening within the cumulative ZTVs does not take into account the potential screening provided by the cumulative development and vice versa. For example, **Appendix A** of this document indicates that the proposed Carr Farm Solar Farm would be potentially visible from Meaux Lane/Meaux Road 2km east of Carr Farm Solar Farm, however the landscape between the proposed Carr Farm Solar Farm and Meaux Lane/Meaux Road would be occupied by the built out Proposed Development and therefore screened from this receptor. In these circumstances, the ZTVs illustrate the potential worst-case scenario.
- 3.1.3 For each of the other existing and/or approved developments identified below, their location is detailed in relation to the Proposed Development. This is followed by a list of the identified receptors, as presented in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]**, for which there is the potential for significant cumulative landscape or visual effects. It should be noted that construction and decommissioning effects have been covered in Table 15-8: Inter-project cumulative effects assessment (construction and decommissioning phases) in **ES Volume 2, Chapter 15: Cumulative Effects [EN010157/APP/6.2]** and were not considered to be potentially significant for the reasons stated in that table. As such, this appendix considers the operational effects only.
- 3.1.4 All receptors scoped out of the main LVIA assessment, or not included in the detailed Residential Visual Amenity Assessment (**ES Volume 4, Appendix 11.5: Residential Visual Amenity Assessment [EN010157/APP/6.4]**), are not considered in the cumulative LVIA on the basis that any significant cumulative

effects arising would primarily be caused by the identified other existing and/or approved developments.

- 3.1.5 In addition, and as detailed in **ES Volume 4, Appendix 11.1: Landscape and Visual Impact Assessment Methodology [EN010157/APP/6.4]**, receptors judged to experience negligible or slight/negligible magnitude of effects from the Proposed Development, are not considered for cumulative effects on the basis that any significant effects arising would primarily be caused by the other existing and/or approved development and would be unlikely to be contributed to by the Proposed Development. Those receptors as identified and assessed in Section 11.9 of **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** as experiencing a negligible or slight/negligible magnitude of effect from the Proposed Development, which would otherwise have been included in one or more of the cumulative assessments below, are detailed in **Table 1-1**.

**Table 1-1: Receptors which would potentially experience cumulative landscape or visual effects, but are excluded from the cumulative LVIA on the basis that any significant cumulative effects arising would primarily be caused by the identified other existing and/or approved developments.**

Receptor	Phase	Magnitude of effect from Peartree Hill Solar Farm
<b>Landscape receptors</b>		
Landscape Character Area (LCA) 16F: Beverley Parks Farmland	Construction	Slight/negligible
	Operation (year 1)	Negligible
	Operation (year 10)	Negligible
	Decommissioning	Slight/negligible
LCA 18F: Figham and Swine Moor Common	Construction	Slight/negligible
	Operation (year 1)	Negligible
	Operation (year 10)	Negligible
	Decommissioning	Slight/negligible
<b>Visual receptors</b>		
Routh	Construction	Slight/negligible
	Operation (year 1)	Slight/negligible
	Operation (year 10)	Slight/negligible
	Decommissioning	Slight/negligible
Weel	Construction	Slight/negligible
	Operation (year 1)	Slight/negligible
	Operation (year 10)	Negligible
	Decommissioning	Slight/negligible
Wilberforce Way regional trail	Construction	Slight/negligible
	Operation (year 1)	None
	Operation (year 10)	None

Receptor	Phase	Magnitude of effect from Peartree Hill Solar Farm
	Decommissioning	Slight/negligible
Skirlaugh Public Right of Way (PRoW) located to the west of Skirlaugh and the A165	Construction	Negligible
	Operation (year 1)	Slight/negligible
	Operation (year 10)	Negligible
	Decommissioning	Negligible
The River Hull	Construction	Slight/negligible
	Operation (year 1)	Slight/negligible
	Operation (year 10)	Negligible
	Decommissioning	Slight/negligible

- 3.1.6 To reiterate, it is recognised that all the receptors listed in **Table 1-1** are likely to experience some cumulative landscape or visual effects. These effects, however, are unlikely to reach the threshold considered to be significant; or if they were to be considered significant then these effects would primarily be caused by the identified other existing and/or approved developments creating significant effects in their own right.

## 3.2 22/01208/STPLF Kenley House Solar Farm

- 3.2.1 This proposal is ID 5 in Tables 15-3 and 15-8 of **ES Volume 2, Chapter 15: Cumulative Effects [EN010157/APP/6.2]**. A combined ZTV for this development and the Proposed Development is presented in **Appendix A** of this document. The proposal occupies arable fields within LCA 18A: River Hull Corridor, 250m south of Field E17 and 550m south-west of Field F1 at its closest to the Proposed Development.
- 3.2.2 The following receptor groups, as identified in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** and in combination within the ZTV presented in **Appendix A** of this document, have been considered within the cumulative assessment:
- LCA 18A: River Hull Corridor;
  - LCA 19D: Central Holderness Open Farmland;
  - PRoW Tickton bridleway no.5;
  - Wawne PRoW located between Weel and Wawne;
  - Meaux Lane/Meaux Road; and
  - Springdale Farm (residential property).

## Cumulative landscape effects during operation (including maintenance)

### *LCA 18A: River Hull Corridor*

- 3.2.3 With respect to LCA 18A: River Hull Corridor, once constructed Kenley House Solar Farm and the solar PV modules in Fields E15-E17 may be perceived as a continuous project due to their proximity. Field E17 is separated from Kenley House Solar Farm by only one field, and Fields E16 and E17 are closer to the Kenley House project than any other fields (excluding Field E15) within the Order Limits. The cumulative ZTV presented in **Appendix A** of this document illustrates that both the Proposed Development and Kenley House Solar Farm would potentially be visible across a tract of land approximately 4km in length, to the east of the River Hull, within LCA 18A: River Hull Corridor.
- 3.2.4 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that in year 1 of operation the Proposed Development on its own would result in large to medium scale change to landscape character over a localised area (up to a maximum of 350-400m from the Order Limits), to the immediate east and south of Weel. There would be a moderate magnitude of effect, which is considered moderate/minor adverse and not significant. Following the establishment of mitigation planting (year 10), the scale of landscape change would remain the same, but over a much more confined area i.e. the Order Limits only. Away from the Order Limits the scale of change would immediately reduce to medium to small. There would be a moderate magnitude of effect, which is considered moderate/minor (tending towards minor) adverse and not significant.
- 3.2.5 It is likely that the proposed Kenley House Solar Farm would give rise to a broadly similar scale of landscape change, over a marginally wider radius surrounding it, within LCA 18A: River Hull Corridor. The Kenley House Solar Farm would therefore extend the large to medium scale of change within LCA 18A: River Hull Corridor further south, to the east of the River Hull only, from Well Stone Carr Drain to close to the northern extents of Wawne.
- 3.2.6 In combination, whilst the scale of change would remain the same, it would cover a wider geographic area. However, both developments would remain largely imperceptible from the majority of LCA 18A: River Hull Corridor, due to the distance from the developments and intervening landscape features.
- 3.2.7 South of Kenley House Solar Farm, any impact on landscape character could be attributed exclusively to that project, whilst to the north of Fields E15 and E17 any impact on landscape character could be attributed almost exclusively to the Proposed Development. Nonetheless, if both the Proposed Development and Kenley House Solar Farm were developed, a greater proportion of LCA 18A: River Hull Corridor as a whole would experience large or medium scale change than if either project was developed in isolation.
- 3.2.8 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of LCA 18A: River Hull Corridor to solar PV development and ancillary infrastructure is low. If both the Proposed Development and Kenley House Solar Farm were operational in combination, there would be a large to medium scale of change over a localised to intermediate area of LCA 18A:

River Hull Corridor that would be medium term in duration, resulting in a moderate magnitude of effect. As the sensitivity of the receptor has been assessed as low this would result in a moderate/minor adverse cumulative effect on existing landscape character, which is considered to be not significant.

- 3.2.9 Mitigation in the form of an **Outline Landscape and Ecological Management Plan (Outline LEMP) [EN010157/APP/7.5]** has already been proposed for the Proposed Development. In addition, mitigation proposals have been submitted with the planning application for Kenley House Solar Farm. No further additional mitigation has therefore been proposed to mitigate inter-project cumulative effects between the two developments. As the purpose of the cumulative LVIA is to identify likely significant cumulative effects we can therefore assume they would not occur in year 10 of operation and are therefore not considered further as any cumulative effects would be no greater than in year 1 of operation (which are not considered significant).

#### *LCA 19D: Central Holderness Open Farmland*

- 3.2.10 With reference specifically to the tract of LCA 19D: Central Holderness Open Farmland located on the arable landscape between the villages of Tickton, Leven, Long Riston, Skirlaugh, Wawne and Weel, it has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that during year 1 of operation the Proposed Development on its own would result in a substantial/moderate magnitude of effect over localised areas and a moderate/slight magnitude of effect over a wider intermediate area. Overall therefore, there would be a moderate adverse effect on existing landscape character, which is considered to be significant. By year 10 of operation, the Proposed Development on its own would result in a moderate magnitude of effect which would be a moderate/minor adverse effect on existing landscape character, which is considered to be not significant.
- 3.2.11 The Kenley House Solar Farm site is directly adjacent to the boundary of LCA 19D: Central Holderness Open Farmland and there would be no direct cumulative effects on the landscape form, pattern or character of LCA 19D: Central Holderness Open Farmland. Whilst the Kenley House Solar Farm site would be visible from within LCA 19D: Central Holderness Open Farmland, it would not adversely affect any identified landscape characteristics and would not increase cumulative landscape effects, on this LCA, were the Proposed Development and Kenley House Solar Farm operational simultaneously. Therefore, any cumulative operational effects on the character of LCA 19D: Central Holderness Open Farmland would be no greater than those identified for the Proposed Development alone.

#### **Cumulative visual effects during operation (including maintenance)**

##### *PRoW Tickton bridleway no.5*

- 3.2.12 This bridleway is orientated north to south, from south of Tickton in the north, along North Carr Lane, and connecting with Wawne footpath no.9 in the south. The bridleway is 2.77km in length and directly passes the eastern boundary of Field E17

for 650m. The bridleway ends at what would be the north-eastern corner of Kenley House Solar Farm.

- 3.2.13 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is high/medium. It was assessed at year 1 there would be a moderate magnitude of effect, which is moderate adverse and significant. By year 10 the long term magnitude of effect was assessed as slight, which is moderate/minor (tending towards minor) adverse and not significant.
- 3.2.14 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Kenley House Solar Farm would be visible from the majority of this bridleway. However, site survey work has confirmed actual visibility of the developments would be far more limited than implied on the ZTV. In addition, once constructed the Proposed Development would provide an additional level of screening between the northern and central sections of the PRoW and Kenley House Solar Farm.
- 3.2.15 For users of the bridleway heading north Kenley House Solar Farm would always be behind them and not visible.
- 3.2.16 For users of the bridleway heading south, it is likely that Kenley House Solar Farm would be screened from the majority of the PRoW by the Proposed Development in Fields E15-E17, as well as existing vegetation and (by year 10 of operation) the mitigation proposals presented in the **Outline LEMP [EN010157/APP/7.5]**. However, as the PRoW passes the south-east corner of Field E17 views of Kenley House Solar Farm would become possible; and continue for approximately the southern 250m of the PRoW and therefore extend the sequential views of solar development and increase the overall perception of solar development within the landscape.
- 3.2.17 It is likely that the proposed Kenley House Solar Farm would give rise to the same type, and broadly similar scale, of visual change as the Proposed Development, but would extend the length of the bridleway over which the effects would be noticeable.
- 3.2.18 If both the Proposed Development and Kenley House Solar Farm were operational in combination, initially there would be a medium scale of change in views along an intermediate stretch of the bridleway. The change would be experienced over a medium term duration and would result in a moderate magnitude of effect. Therefore, in year 1 of operation, there would be a moderate adverse cumulative effect on views for users of Tickton bridleway no.5, which is considered to be significant.
- 3.2.19 Both the Proposed Development and Kenley House Solar Farm include new planting to help screen solar infrastructure. No further additional mitigation has been proposed to mitigate inter-project cumulative effects between the two developments.
- 3.2.20 By year 10 there would be a small scale of change in view along an intermediate stretch of the bridleway. The change would be experienced over a long term



duration and would result in a slight magnitude of effect. Therefore, in year 10 of operation, there would be a residual moderate/minor (tending towards minor) adverse cumulative effect on views for users of Tickton bridleway no.5, which is considered to be not significant.

*Wawne PRoW located between Weel and Wawne*

- 3.2.21 This receptor group includes the PRoW in the landscape between the River Hull in the west, Weel and Land Area E in the north, Wawne in the south and the western extents of Land Area F.
- 3.2.22 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is high/medium. It was assessed at both year 1 and year 10 there would be a slight magnitude of effect, which is moderate/minor adverse and not significant.
- 3.2.23 Kenley House Solar Farm is located centrally within this area, with Wawne footpath no.7 running through the centre of the Kenley House site and Wawne footpath no.9 directly adjacent to the eastern boundary of the Kenley House site. (Note that Wawne footpath no. 8 is within the identified receptor group 'River Hull' and not included with this group).
- 3.2.24 The landscape is flat and open with fields separated by drainage ditches rather than hedgerow boundaries, albeit there are very occasional woodland belts and strips of scrub vegetation which would partially filter views of solar PV development within Land Areas E and F and the Kenley House site.
- 3.2.25 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Kenley House Solar Farm would be visible from the majority of these PRoW.
- 3.2.26 For users of these PRoW it is likely that Kenley House Solar Farm would be very visible over a wider area and there would be a large scale of change in visual amenity, particularly from Wawne footpaths no.7 and no.9. The Proposed Development and Kenley House Solar Farm would be visible simultaneously, and sequentially, from sections of the PRoW closest to Land Area E. However, the Proposed Development in Fields E15-E17 would be largely screened by intervening vegetation and Kenley House Solar Farm from the PRoW closer to the village of Wawne. For users of these PRoW there may be views of solar development in Fields E10, E12 and the western extents of Land Area F to the east of the Kenley House site. There would be a perception of solar development across the landscape, often in multiple directions from the PRoW.
- 3.2.27 It is likely that the proposed Kenley House Solar Farm would give rise to the same type of visual change as the Proposed Development, but due to its proximity to the Wawne PRoWs it would be of larger scale and over a wider area (with specific reference to this receptor group).
- 3.2.28 If both the Proposed Development and Kenley House Solar Farm were operational in combination, initially there would be a large to medium scale of change in views



over a wide area of these PRow. The change would be experienced over a medium term duration and would result in a substantial/moderate magnitude of effect. Therefore, in year 1 of operation, there would be a major/moderate adverse cumulative effect on views for users of Wawne PRow located between Weel and Wawne, which is considered to be significant. It is noted that the significant effect is primarily caused by the Kenley House Solar Farm development in its own right.

- 3.2.29 Both the Proposed Development and Kenley House Solar Farm include new planting to help screen solar infrastructure. No further additional mitigation has been proposed to mitigate inter-project cumulative effects between the two developments.
- 3.2.30 By year 10 there would be a medium scale of change in view over an intermediate to wide area of these PRow. The change would be experienced over a long term duration and would result in a moderate magnitude of effect. Therefore, in year 10 of operation, there would be a residual moderate adverse cumulative effect on views for users of Wawne PRow located between Weel and Wawne, which is considered to be significant. It is noted that the significant effect is primarily caused by the Kenley House Solar Farm development in its own right.

#### *Meaux Lane/Meaux Road*

- 3.2.31 Meaux Lane/Meaux Road is a local road running broadly north to south from the A1035 at Routh in the north, to the centre of Wawne 6.94km to the south. The northern 4.35km of the road is known as Meaux Lane and it becomes Meaux Road at the point it crosses Holderness Drain. The road cuts through the centre of the study area for the Proposed Development and is adjacent to Land Areas D and F. At its closest it passes 1.2km south-east of Kenley House Solar Farm.
- 3.2.32 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is medium. It was assessed at year 1 there would be a moderate magnitude of effect, which is moderate adverse and significant. By year 10 the long term magnitude of effect was assessed as moderate/slight, which is moderate/minor adverse and not significant.
- 3.2.33 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Kenley House Solar Farm would be visible from various sections of the road along its full length. However, site survey work has confirmed actual visibility of the developments would be far more limited than implied on the ZTV. In particular, there are unlikely to be anything other than negligible, very occasional and glimpsed views of the Kenley House Solar Farm for road users. Furthermore, once constructed the Proposed Development would provide an additional high level of screening between the road and Kenley House Solar Farm.
- 3.2.34 In these circumstances it is assessed that there would be no additional cumulative effects arising from both the Proposed Development and Kenley House Solar Farm being operational simultaneously, on users of Meaux Lane/Meaux Road. With the

assessed effects being as per those stated in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** for the Proposed Development alone.

*Springdale Farm (residential property)*

- 3.2.35 This property is located to the immediate south of Field E16 and 140m from the closest above ground solar infrastructure. The northern extents of Kenley House Solar Farm are 430m south of the property.
- 3.2.36 It has been assessed in **ES Volume 4, Appendix 11.5: Residential Visual Amenity Assessment [EN010157/APP/6.4]** that the sensitivity of this receptor group is high. It was assessed at year 1 there would be a moderate magnitude of effect, which is major/moderate adverse and significant. By year 10 the long term magnitude of effect was assessed as moderate/slight, which is moderate adverse and not significant (based on longer term views of solar development being from the upper floor of the property only).
- 3.2.37 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Kenley House Solar Farm would be visible from this property.
- 3.2.38 If both the Proposed Development and Kenley House Solar Farm were operational at the same time this would result in new solar development to the north, east and south of the property. Due to orientation it is unlikely that both the Proposed Development and Kenley House Solar Farm could be viewed simultaneously from the property, though both would potentially be viewed from the same location as the viewer turned. However, from ground level, all views, including from the garden to the rear of the property, would be heavily screened by existing vegetation.
- 3.2.39 The scale of change in view created by the Kenley House Solar Farm would be less than that from the Proposed Development, but would increase the geographic extent and direction of views in which solar development was visible.
- 3.2.40 If both the Proposed Development and Kenley House Solar Farm were operational in combination, initially there would be a large to medium scale of change in views. The change would be experienced over a medium term duration and would result in a substantial/moderate magnitude of effect. Therefore, in year 1 of operation, there would be a major/moderate adverse cumulative effect, which is considered to be significant.
- 3.2.41 Both the Proposed Development and Kenley House Solar Farm include new planting to help screen solar infrastructure; and the mitigation proposals presented in the **Outline LEMP [EN010157/APP/7.5]** include proposals that are specifically aimed at reducing the visual impact on residents at Springdale Farm. No further additional mitigation has been proposed to mitigate inter-project cumulative effects between the Proposed Development and Kenley House Solar Farm.
- 3.2.42 By year 10 there would be a medium/small scale of change in views. The change would be experienced over a long term duration and would result in a

moderate/slight magnitude of effect, which would be a moderate adverse cumulative effect, which is considered to be significant.

### 3.3 22/00824/STPLF Field House Solar Farm

3.3.1 This proposal is ID 10 in Tables 15-3 and 15-8 in **ES Volume 2, Chapter 15: Cumulative Effects [EN010157/APP/6.2]**. A combined ZTV for this development and the Proposed Development is presented in **Appendix A** of this document. The proposal occupies arable fields within LCA 19D: Central Holderness Open Farmland, the eastern extents of the proposals extend to the field directly to the west of Field D3 at its closest to the Proposed Development.

3.3.2 The following receptor groups, as identified in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** and in combination within the ZTV presented in **Appendix A** of this document, have been considered within the cumulative assessment:

- LCA 18A: River Hull Corridor;
- LCA 19D: Central Holderness Open Farmland;
- National Cycle Network (NCN) Route no.164;
- PRoW Tickton bridleway no.5;
- Tickton PRoW located between Tickton and Weel;
- A1035;
- Meaux Lane/Meaux Road; and
- Manor House Farm (residential property).

#### **Cumulative landscape effects during operation (including maintenance)**

##### *LCA 18A: River Hull Corridor*

3.3.3 With reference specifically to the tract of LCA 18A: River Hull Corridor located on the arable landscape to the east and south of Weel, it has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that during year 1 of operation the Proposed Development on its own would result in a moderate/minor adverse effect on existing landscape character, which is considered to be not significant. By year 10 of operation, the Proposed Development on its own would result in a moderate/minor adverse (tending towards minor) effect on existing landscape character, which is considered to be not significant.

3.3.4 Field House Solar Farm is located close to, but outside the boundary of, LCA 18A: River Hull Corridor. The tract of land in LCA 18A: River Hull Corridor, impacted by the Proposed Development, is 1.7km from Field House Solar Farm at its closest point.

3.3.5 There would be no direct cumulative effects on the landscape form, pattern or character of LCA 18A: River Hull Corridor. Whilst the Field House Solar Farm site would be visible from within LCA 18A: River Hull Corridor, it would not adversely

affect any identified landscape characteristics and would not increase cumulative landscape effects were the Proposed Development and Field House Solar Farm operational simultaneously. Therefore, any cumulative operational effects on the character of LCA 18A: River Hull Corridor would be no greater than those identified for the Proposed Development alone.

#### *LCA 19D: Central Holderness Open Farmland*

- 3.3.6 With respect to LCA 19D: Central Holderness Open Farmland, once constructed Field House Solar Farm and the solar PV modules in Land Areas D and E may be perceived as a continuous project due to their proximity. Fields D1 and D3 are adjacent to the eastern extents of Field House Solar Farm. The cumulative ZTV presented in **Appendix A** of this document illustrates that both the Proposed Development and Field House Solar Farm would potentially be visible across a tract of land approximately 3km in width and length, from Tickton in the north-west, to Weel in the south-west and Meaux Lane/Meaux Road in the east, within LCA 19D: Central Holderness Open Farmland.
- 3.3.7 With reference specifically to the tract of LCA 19D: Central Holderness Open Farmland located on the arable landscape between the villages of Tickton, Leven, Long Riston, Skirlaugh, Wawne and Weel, it has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that during year 1 of operation the Proposed Development on its own would result in a substantial/moderate magnitude of effect over localised areas and a moderate/slight magnitude of effect over a wider intermediate area. Overall therefore, there would be a moderate adverse effect on existing landscape character, which is considered to be significant. By year 10 of operation, the Proposed Development on its own would result in a moderate magnitude of effect which would be a moderate/minor adverse effect on existing landscape character, which is considered to be not significant.
- 3.3.8 It is likely that the proposed Field House Solar Farm would give rise to the same type and broadly similar scale of landscape change, but over a much smaller radius, than the Proposed Development within LCA 19D: Central Holderness Open Farmland. The Field House Solar Farm would therefore extend the large to medium scale of change within LCA 19D: Central Holderness Open Farmland further north-west towards the village of Tickton. Therefore, in combination, whilst the scale of change would remain the same, it would cover a slightly wider geographic area.
- 3.3.9 Overall the Proposed Development would have a larger impact on landscape character within LCA 19D: Central Holderness Open Farmland, than the Field House Solar Farm project.
- 3.3.10 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of LCA 19D: Central Holderness Open Farmland to solar PV development and ancillary infrastructure is low. If both the Proposed Development and Field House Solar Farm were operational in combination, there would be a large to medium scale of change over an intermediate area of LCA 19D: Central Holderness Open Farmland that would be medium term in duration, resulting in a substantial/moderate magnitude of effect. As the sensitivity of the receptor has been assessed as low this would result in a

moderate adverse cumulative effect on existing landscape character, which is considered to be significant.

- 3.3.11 Mitigation in the form of an **Outline LEMP [EN010157/APP/7.5]** has already been proposed for the Proposed Development. In addition, mitigation proposals have been submitted with the planning application for Field House Solar Farm. No further additional mitigation has therefore been proposed to mitigate inter-project cumulative effects between the two developments.
- 3.3.12 By year 10, a considerable amount of new hedgerow planting is proposed throughout LCA 19D: Central Holderness Open Farmland and once established these would further restrict the extent of effects on landscape character within LCA 19D: Central Holderness Open Farmland.
- 3.3.13 Similar to year 1 cumulative operational effects, the Field House Solar Farm would not have an impact on the overall scale of effects, but would increase the geographic area that impacts were experienced. These effects would be more contained than during year 1 of operation due to the combined mitigation proposals. In combination, a large and medium scale of landscape change would therefore be restricted to a more localised extent of LCA 19D: Central Holderness Open Farmland and would be long term in duration resulting in a moderate magnitude of effect.
- 3.3.14 Therefore, in year 10 of operation, with reference specifically to the tract of LCA 19D: Central Holderness Open Farmland located on the arable landscape between the villages of Tickton, Leven, Long Riston, Skirlaugh, Wawne and Weel there is likely to be a residual moderate/minor adverse cumulative effect on existing landscape character, which is considered to be not significant.

#### **Cumulative visual effects during operation (including maintenance)**

##### *NCN Route no.164 and A1035*

- 3.3.15 The cumulative ZTV presented in **Appendix A** of this document illustrates that both developments would potentially be visible from NCN Route no.164 for approximately 3km as it follows the A1035 from the eastern extents of Tickton towards Leven, plus an additional short section on the north-eastern periphery of Beverley.
- 3.3.16 Within this 3km section of potential combined visibility the NCN Route no.164 and the A1035 are adjacent to the northern boundary of Field House Solar Farm for approximately 1km. In addition, NCN Route no.164/A1035 passes the northern boundary of Fields B1 and B2 to the east of the area of potential combined visibility, therefore creating the potential for sequential cumulative visual effects.
- 3.3.17 With respect to NCN Route no.164 it has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is high/medium. It was assessed at both year 1 and year 10 there would be a moderate/slight magnitude of effect, which is moderate adverse and not significant

(this is due to these views being possible from a busy section of A-road only when cyclists are most likely to be concentrating on the traffic and road safety).

- 3.3.18 With respect to the A1035 it has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is low. It was assessed in year 1 there would be a moderate/slight magnitude of effect, which is minor adverse and not significant. It was assessed in year 10 there would be a moderate magnitude of effect, which is moderate/minor adverse and not significant
- 3.3.19 Although the cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Field House Solar Farm would be visible from 3km of NCN Route no.164 and the A1035, site survey work has confirmed actual visibility of the developments would be far more limited than implied on the ZTV. In particular, the existing roadside hedgerows to the north of the proposed Field House Solar Farm would heavily screen the whole development to the extent there would be no more than very occasional, glimpsed and heavily screened views of any solar infrastructure.
- 3.3.20 In these circumstances it is assessed that there would be no additional cumulative effects arising from both the Proposed Development and Field House Solar Farm being operational simultaneously, on users of NCN Route no.164 and road users on the A1035, with the assessed effects being as per those stated in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** for the Proposed Development alone.

#### *PRoW Tickton bridleway no.5*

- 3.3.21 This bridleway is orientated north to south, from south of Tickton in the north, along North Carr Lane, and connecting with Wawne footpath no.9 in the south. The bridleway is 2.77km in length and directly passes the eastern boundary of Field E17 for 650m. The northern 125m of the bridleway is adjacent to what would be the south-western corner of Field House Solar Farm, where it then continues as Tickton footpath no.14.
- 3.3.22 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is high/medium. It was assessed at year 1 there would be a moderate magnitude of effect, which is moderate adverse and significant. By year 10 the long term magnitude of effect was assessed as slight, which is moderate/minor (tending towards minor) adverse and not significant.
- 3.3.23 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Field House Solar Farm would be visible from the northern 1.8km of this bridleway, i.e. the full section between the Proposed Development and Field House Solar Farm. However, site survey work has confirmed actual visibility of the developments would be far more limited than



implied on the ZTV. The occasional hedgerow field boundaries, within a level landscape, providing a high level of screening.

- 3.3.24 For users of the bridleway heading north the solar development in Fields E15-E17 would initially be prominent in view, when users have passed these fields there would then be an approximate 1km stretch of the bridleway when neither development was visible. At this point the Field House Solar Farm would become visible, although partially filtered, from the northern 900m of the bridleway. In addition, there may be views eastwards of development in Fields E1 and E5, approximately 600m east of the bridleway.
- 3.3.25 For users of the bridleway heading south, the Field House Solar Farm would be visible from the initial 200m only which is adjacent to the Site. From that point on views would be of the Proposed Development only as described in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]**.
- 3.3.26 Therefore, there would be a cumulative increase in sequential views of solar development for users of this bridleway heading in both directions, and an increase in the overall perception of solar development within the landscape.
- 3.3.27 It is likely that the proposed Field House Solar Farm would give rise to the same type, and broadly similar scale, of visual change as the Proposed Development, but over a shorter length of the bridleway, which nevertheless extends the overall length of bridleway from which solar development is visible.
- 3.3.28 If both the Proposed Development and Field House Solar Farm were operational in combination, there would initially be a large to medium scale of change in views along a wide to intermediate stretch of the bridleway. The change would be experienced over a medium term duration and would result in a substantial/moderate magnitude of effect. Therefore, in year 1 of operation, there would be a major/moderate adverse cumulative effect on views for users of Tickton bridleway no.5, which is considered to be significant.
- 3.3.29 Mitigation in the form of an **Outline LEMP [EN010157/APP/7.5]** has already been proposed for the Proposed Development. In addition, mitigation proposals have been submitted with the planning application for Field House Solar Farm. No further additional mitigation has therefore been proposed to mitigate inter-project cumulative effects between the two developments.
- 3.3.30 By year 10 there would be a medium scale of change in view along an intermediate stretch of the bridleway. The change would be experienced over a long term duration and would result in a moderate magnitude of effect. Therefore, in year 10 of operation, there would be a residual moderate adverse cumulative effect on views for users of Tickton bridleway no.5, which is considered to be significant.

*Tickton PRoW located between Tickton and Weel*

- 3.3.31 This receptor group includes all the PRoW in the landscape between the River Hull in the west, Tickton in the north, Weel in the south and the western extents of Land

Area E, unless the PRoW has been individually identified elsewhere (i.e. Tickton bridleway no.5 is excluded from this group).

- 3.3.32 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is high/medium. It was assessed in year 1 of operation there would be a slight magnitude of effect, which is moderate/minor adverse and not significant. By year 10 the long term magnitude of effect was assessed as slight/negligible, which is moderate/minor (tending towards minor) adverse and not significant.
- 3.3.33 Field House Solar Farm is located to the north-east of this area, with the eastern end of Tickton footpath no.14 adjacent to the south-west corner of the Field House site.
- 3.3.34 Views within this landscape are across an open and flat arable landscape with large fields demarcated by boundary ditches and hedgerows. There are occasional uniform strips of woodland blocks which foreshorten views. A steel pylon overhead electricity line is visible crossing the landscape from north to south.
- 3.3.35 The cumulative ZTV presented in **Appendix A** of this document indicates that both the Proposed Development and Field House Solar Farm would be potentially visible from the majority of the PRoW in this area. However, site survey work has confirmed actual visibility of the developments would be far more limited than implied on the ZTV. The level landscape, occasional hedgerow field boundaries and woodland blocks providing a high level of screening, for example, the linear woodland blocks adjacent to Old Keld Drain and Old Main Drain both heavily screen views across the landscape in this location.
- 3.3.36 For users of these PRoW it is likely that Field House Solar Farm would be visible over an intermediate area, in particular from those PRoW closer to the Field House site including Tickton footpath no's.3, 6 and 14. However, the level landscape and occasional hedgerows would provide a good degree of screening. Occasionally the Proposed Development and Field House Solar Farm would be visible simultaneously, and sequentially, from sections of the PRoW closest to Land Area E and Field House Solar Farm. However, the Proposed Development in Fields E15-E17 would often be largely screened by intervening vegetation.
- 3.3.37 For users of these PRoW there would be a perception of solar development across the landscape, often in multiple directions from the PRoW, however due to the low level heights of both the Proposed Development and Field House Solar Farm it would not be overbearing. The Proposed Development and Field House Solar Farm are likely to be perceived as a single larger development.
- 3.3.38 It is likely that the proposed Field House Solar Farm would give rise to the same type of visual change as the Proposed Development, but due to the closer proximity to the PRoW it would be of larger scale and extend the overall geographic extents of perception of solar development.
- 3.3.39 If both the Proposed Development and Field House Solar Farm were operational in combination, initially there would be a medium scale of change in views over an intermediate area of these PRoW. The change would be experienced over a



medium term duration and would result in a moderate magnitude of effect. Therefore, in year 1 of operation, there would be a moderate adverse cumulative effect on views for users of Tickton PRow located between Tickton and Weel, which is considered to be significant. It is noted that the significant effect is primarily caused by the Field House Solar Farm development in its own right.

- 3.3.40 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that by year 10 the long term magnitude of effect, created by the Proposed Development alone, would be slight/negligible. Therefore, as per the cumulative LVIA methodology detailed in **ES Volume 4, Appendix 11.1: Landscape and Visual Impact Assessment Methodology [EN010157/APP/6.4]** receptors judged to experience negligible or slight/negligible magnitude of effects from the Proposed Development, are not considered for cumulative effects. This is because any cumulative effects considered significant, would primarily be caused by the cumulative development creating significant effects in their own right.

#### *Meaux Lane/Meaux Road*

- 3.3.41 Meaux Lane/Meaux Road is a local road running broadly north to south from the A1035 at Routh in the north, to the centre of Wawne 6.94km to the south. The northern 4.35km of the road is known as Meaux Lane and it becomes Meaux Road at the point it crosses Holderness Drain. The road cuts through the centre of the study area for the Proposed Development and is adjacent to Land Areas D and F. At its closest it passes 550m east of Field House Solar Farm.
- 3.3.42 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is medium. It was assessed at year 1 there would be a moderate magnitude of effect, which is moderate adverse and significant. By year 10 the long term magnitude of effect was assessed as moderate/slight, which is moderate/minor adverse and not significant.
- 3.3.43 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Field House Solar Farm would be visible from various sections of the road, in particular the northern 2.6km. However, site survey work has confirmed actual visibility of Field House Solar Farm would be far more limited than implied on the ZTV. In particular, there are unlikely to be anything other than negligible, very occasional and glimpsed views of the Field House Solar Farm for road users, due to the high level of screening provided by roadside hedgerows. From approximately 950m along the road (heading south from the junction with the A1035) the Proposed Development would provide an additional high level of screening between the road and Field House Solar Farm.
- 3.3.44 In these circumstances it is assessed that there would be no additional cumulative effects arising from both the Proposed Development and Field House Solar Farm being operational simultaneously, on users of Meaux Lane/Meaux Road. With the assessed effects being as per those stated in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** for the Proposed Development alone.

#### *Manor House Farm (residential property)*

- 3.3.45 This property is located 210m north-east from the closest above ground solar infrastructure in Field D6 within the Proposed Development. The eastern extents of Field House Solar Farm are 480m west of the property, potentially increasing the geographic extent, and directions, solar development would be visible in, from the property.
- 3.3.46 It has been assessed in **ES Volume 4, Appendix 11.5: Residential Visual Amenity Assessment [EN010157/APP/6.4]** that the sensitivity of this receptor group is high. It was assessed at both year 1 and year 10 there would be a moderate/slight magnitude of effect, which is moderate adverse and not significant.
- 3.3.47 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Field House Solar Farm would be visible from this property. However, the Residential Visual Amenity Assessment (**ES Volume 4, Appendix 11.5: Residential Visual Amenity Assessment [EN010157/APP/6.4]**) included a visit to the property and the walled garden and mature vegetation west of the property would screen potential views of Field House Solar Farm, except for glimpsed heavily screened views from upper floor windows only.
- 3.3.48 In these circumstances it is assessed that there would be no additional cumulative effects arising from both the Proposed Development and Field House Solar Farm being operational simultaneously, on residents of Manor House Farm. With the assessed effects being as per those stated in **ES Volume 4, Appendix 11.5: Residential Visual Amenity Assessment [EN010157/APP/6.4]** for the Proposed Development alone.

### 3.4 21/02335/STPLF Creyke Beck Solar Farm

- 3.4.1 This proposal is ID 11 in Tables 15-3 and 15-8 of **ES Volume 2, Chapter 15: Cumulative Effects [EN010157/APP/6.2]**. A combined ZTV for this development and the Proposed Development is presented in **Appendix A** of this document. The proposal occupies arable fields within LCA 16F: Beverley Parks Farmland, the north-eastern extents of the proposals extend to 4.6km south-west of Field E16 at its closest to the Proposed Development.
- 3.4.2 The following receptor groups, as identified in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** and in combination within the ZTV presented in **Appendix A** of this document, have been considered within the cumulative assessment:

- Wawne PRow located between Weel and Wawne

#### **Cumulative visual effects during operation (including maintenance)**

*Wawne PRow located between Weel and Wawne*

- 3.4.3 This receptor group includes all the PRow in the landscape between the River Hull in the west, Weel and Land Area E in the north, Wawne in the south and the western extents of Land Area F in the east.
- 3.4.4 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is high/medium. It was assessed at both year 1 and year 10 there would be a slight magnitude of effect, which is moderate/minor adverse and not significant.
- 3.4.5 The cumulative ZTV presented in **Appendix A** of this document, indicates that potentially both the Proposed Development and Creyke Beck Solar Farm would be visible from various sections of these PRow. However, site survey work has confirmed actual visibility of Creyke Beck Solar Farm would be far more limited than implied on the ZTV. In particular, there are unlikely to be anything other than extremely negligible, very occasional and long-distance (minimum of 4.5km) views of the Creyke Beck Solar Farm for PRow users.
- 3.4.6 In these circumstances it is assessed that there would be no additional cumulative effects arising from both the Proposed Development and Creyke Beck Solar Farm being operational simultaneously, on users of Wawne PRow located between Weel and Wawne. With the assessed effects being as per those stated in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** for the Proposed Development alone.

### 3.5 22/02775/STPLF Turf Carr Solar Farm

- 3.5.1 This proposal is ID 13 in Tables 15-3 and 15-8 of **ES Volume 2, Chapter 15: Cumulative Effects [EN010157/APP/6.2]**. A combined ZTV for this development and the Proposed Development is presented in **Appendix A** of this document. The proposal occupies arable fields within LCA 19D: Central Holderness Open Farmland, the northern extents of the proposals extend to the field directly to the south of Field C7 at its closest to the Proposed Development.
- 3.5.2 The following receptor groups, as identified in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** and in combination within the ZTV presented in **Appendix A** of this document, have been considered within the cumulative assessment:
- LCA 19D: Central Holderness Open Farmland;
  - Long Riston (including Arnold);
  - PRow Riston footpath no.2;
  - PRow Riston footpath no.1;
  - Swine PRow located to the east of Wawne and the south-east of Land Areas C and F;
  - A165;
  - Meaux Lane/Meaux Road;
  - Black Tup Lane and Ings Lane;

- Kidhill Lane;
- Lumbercote (residential property); and
- Wawne Common Farm Cottage (residential property).

#### **Cumulative landscape effects during operation (including maintenance)**

##### *LCA 19D: Central Holderness Open Farmland*

- 3.5.3 With respect to LCA 19D: Central Holderness Open Farmland, once constructed Turf Carr Solar Farm and the solar PV modules in Land Area C and potentially Land Area F, may be perceived as a continuous project due to their proximity. Field C7 is adjacent to the northern extents of Turf Carr Solar Farm; and Fields F11-F13 are circa 500m from the western boundary of Turf Carr Solar Farm. The cumulative ZTV presented in **Appendix A** of this document illustrates that both the Proposed Development and Turf Carr Solar Farm would potentially be visible across a wide area from the A1035 in the north, the A165 in the east, Meaux Lane/Meaux Road in the west and Kingswood in the south, within LCA 19D: Central Holderness Open Farmland.
- 3.5.4 With reference specifically to the tract of LCA 19D: Central Holderness Open Farmland located on the arable landscape between the villages of Tickton, Leven, Long Riston, Skirlaugh, Wawne and Weel, it has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that during year 1 of operation the Proposed Development on its own would result in a substantial/moderate magnitude of effect over localised areas and a moderate/slight magnitude of effect over a wider intermediate area. Overall therefore, there would be a moderate adverse effect on existing landscape character, which is considered to be significant. By year 10 of operation, the Proposed Development on its own would result in a moderate magnitude of effect which would be a moderate/minor adverse effect on existing landscape character, which is considered to be not significant.
- 3.5.5 It is likely that the proposed Turf Carr Solar Farm would give rise to the same type and broadly similar scale of landscape change, but over a smaller radius, than the Proposed Development within LCA 19D: Central Holderness Open Farmland.
- 3.5.6 The Turf Carr Solar Farm would therefore slightly extend the large to medium scale of change within LCA 19D: Central Holderness Open Farmland further south towards the north-eastern extents of Kingswood. Therefore, in combination, whilst the scale of change would remain the same, it would cover a slightly wider geographic area.
- 3.5.7 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of LCA 19D: Central Holderness Open Farmland to solar PV development and ancillary infrastructure is low. If both the Proposed Development and Turf Carr Solar Farm were operational in combination, there would be a large to medium scale of change over an intermediate area of LCA 19D: Central Holderness Open Farmland that would be medium term in duration, resulting in a substantial/moderate magnitude of effect. As the sensitivity of the receptor has been assessed as low this would result in a moderate adverse

cumulative effect on existing landscape character, which is considered to be significant.

- 3.5.8 Mitigation in the form of an **Outline LEMP [EN010157/APP/7.5]** has already been proposed for the Proposed Development. In addition, mitigation proposals have been submitted with the planning application for Turf Carr Solar Farm. No further additional mitigation has therefore been proposed to mitigate inter-project cumulative effects between the two developments.
- 3.5.9 By year 10, a considerable amount of new hedgerow planting is proposed throughout LCA 19D: Central Holderness Open Farmland and once established these would further restrict the extent of effects on landscape character within LCA 19D: Central Holderness Open Farmland.
- 3.5.10 Similar to year 1 cumulative operational effects, the Turf Carr Solar Farm would not have an impact on the overall scale of effects, but would increase the geographic area that impacts were experienced. These effects would be more contained than during year 1 of operation due to the combined mitigation proposals. In combination, a large and medium scale of landscape change would therefore be restricted to a more localised extent of LCA 19D: Central Holderness Open Farmland and would be long term in duration resulting in a moderate magnitude of effect.
- 3.5.11 Therefore, in year 10 of operation, with reference specifically to the tract of LCA 19D: Central Holderness Open Farmland located on the arable landscape between the villages of Tickton, Leven, Long Riston, Skirlaugh, Wawne and Weel there is likely to be a residual moderate/minor adverse cumulative effect on existing landscape character, which is considered to be not significant.

### **Cumulative visual effects during operation (including maintenance)**

#### *Long Riston (including Arnold)*

- 3.5.12 This receptor group includes the linear village of Long Riston, located to the east of the A165 around Main Street, the linear village of Arnold, located to the west of the A165 around Arnold Lane Way, St Margaret's Church and the small number of PRoW which connect with the village. The southern end of Long Riston merges with the northern end of Arnold, creating one larger village. The full length of the village is broadly parallel to the Proposed Development, approximately 1.5km east of Land Areas B and C. At its closest the southern end of Arnold is approximately 2.6km north-east of the northern extents of Turf Carr Solar Farm.
- 3.5.13 Views around the settlement are generally of medium to large flat arable field parcels subdivided by drainage ditches and mature hedgerows maintained to a low level. Occasional trees and woodland belts are visible across the flat landscape. Scattered properties and farms are visible on the horizon; and any taller than usual structures, such as churches, or further afield, Hall Farm Wind Farm, are prominent on the sky line.
- 3.5.14 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is high/medium. It

was assessed at year 1 there would be a slight magnitude of effect, which is moderate/minor adverse and not significant.

- 3.5.15 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Turf Carr Solar Farm would be visible from the whole of Arnold and the western periphery of Long Riston. However, site survey work has confirmed actual visibility of both the Proposed Development and Turf Carr Solar Farm would be far more limited than implied on the ZTV. The level landscape and occasional hedgerow field boundaries provide a high level of screening and it is considered that at a minimum distance of 2.6km would be no more than extremely negligible glimpsed views of any of the Turf Carr Solar Farm development from within Long Riston (including Arnold).
- 3.5.16 In these circumstances it is assessed that there would be no additional cumulative effects arising from both the Proposed Development and Turf Carr Solar Farm being operational simultaneously on the settlement of Long Riston (including Arnold). With the assessed effects being as per those stated in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** for the Proposed Development alone.

*PRoW Riston footpath no.1 and PRoW Riston footpath no.2*

- 3.5.17 PRoW Riston footpath no.2 is orientated north to south along the eastern bank of Monk Dike, Arnold West Carr Drain and Drewery's Sock Dyke for 4.59km, and is adjacent to Land Areas B and C for the majority of the PRoW. It's very southern end is adjacent to the north-east corner of the Turf Carr site. PRoW Riston footpath no.1 loops around the northern and western periphery of Field C7 and ends adjacent to the northern extents of the Turf Carr site.
- 3.5.18 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of these receptor groups is high/medium. Regarding PRoW Riston footpath no.2 it was assessed at year 1 there would be a substantial/moderate magnitude of effect, which is major/moderate adverse and significant. By year 10 the long term magnitude of effect was assessed as substantial/moderate, which is major/moderate (tending towards moderate) adverse and significant.
- 3.5.19 Regarding PRoW Riston footpath no.1 it was assessed at year 1 there would be a substantial/moderate magnitude of effect, which is major/moderate adverse and significant. By year 10 the long term magnitude of effect was assessed as moderate, which is moderate adverse and significant.
- 3.5.20 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Turf Carr Solar Farm would be visible from the full extents of these PRoW. However, site survey work has confirmed actual visibility of the developments would be far more limited than implied on the ZTV. Furthermore, when the Proposed Development was



constructed this would actually screen the Turf Carr Solar Farm development from these PRow.

- 3.5.21 For walkers heading south, the Turf Carr Solar Farm would generally not be visible, but from the very southern ends of both PRow both the Proposed Development and Turf Carr Solar Farm would become visible as the walkers reached the southern extents of the Proposed Development. For walkers heading west there would also be simultaneous, partially screened, views of both the Proposed Development and Turf Carr Solar Farm from the eastern end of PRow Riston footpath no.1.
- 3.5.22 It is likely that the proposed Turf Carr Solar Farm would give rise to the same type, and broadly similar scale, of visual change as the Proposed Development, but only from southern ends of the PRow, which nevertheless extends the overall perception of solar development within the landscape.
- 3.5.23 It is recognised that the effects on users of both PRow Riston footpath no.1 and PRow Riston footpath no.2 would largely be created by the Proposed Development alone, with the additional effects created by Turf Carr Solar Farm largely limited to the perception of solar development across a wider area from the southern ends of the PRow.
- 3.5.24 In these circumstances it is assessed that there would be no additional cumulative effects arising from both the Proposed Development and Turf Carr Solar Farm being operational simultaneously, on users of both PRow Riston footpath no.1 and PRow Riston footpath no.2. With the assessed effects being as per those stated in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** for the Proposed Development alone.

*Swine PRow located to the east of Wawne and the south-east of Land Areas C and F*

- 3.5.25 This receptor group includes all the PRow in the landscape east of Wawne and the south-east of Land Areas C and F.
- 3.5.26 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is high/medium. It was assessed at both year 1 and year 10 there would be a moderate magnitude of effect, which is moderate adverse and not significant (based on there only being a short stretch of one footpath where a large/medium scale of change to views would be experienced).
- 3.5.27 Turf Carr Solar Farm is located centrally within this area, with Wawne bridleway no.10 running adjacent to the boundary of the Turf Carr site for 570m, Swine

bridleway no.4 is within the Turf Carr site for 530m and Swine footpath no.7 is adjacent to the eastern boundary of the Turf Carr site for 1.8km.

- 3.5.28 The views in all directions are across an open and flat arable landscape with large fields demarcated by boundary ditches and occasional scrub vegetation. There are isolated trees and woodland copses across the landscape.
- 3.5.29 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Turf Carr Solar Farm would be visible from the majority of these PRow. Whilst the Turf Carr Solar Farm would be highly visible from these PRow, site survey work has established that the Proposed Development would only be prominent in view from the northern end of Swine footpath no.7, with visibility from elsewhere limited.
- 3.5.30 For users of these PRow it is likely that Turf Carr Solar Farm would be very visible over a wider area and there would be a large scale of change in visual amenity. The Proposed Development and Turf Carr Solar Farm would be visible simultaneously, and sequentially, from sections of the PRow closest to Fields C7 and C9. For users of these PRow there may also be views of solar development in the western extents of Land Area F to the west of the Turf Carr site. There would be a perception of solar development across the landscape, often in multiple directions from the PRow.
- 3.5.31 It is likely that the proposed Turf Carr Solar Farm would give rise to the same type of visual change as the Proposed Development, but due to the proximity it would be of larger scale and over a wider area (with specific reference to this receptor group).
- 3.5.32 If both the Proposed Development and Turf Carr Solar Farm were operational in combination, initially there would be a large to medium scale of change in views over a wide area of these PRow. The change would be experienced over a medium term duration and would result in a substantial/moderate magnitude of effect. Therefore, in year 1 of operation, there would be a major/moderate adverse cumulative effect on views for users of Swine PRow located to the east of Wawne and the south-east of Land Areas C and F, which is considered to be significant. It is noted that the significant effect is primarily caused by the Turf Carr Solar Farm development in its own right.
- 3.5.33 Both the Proposed Development and Turf Carr Solar Farm include new planting to help screen solar infrastructure. No further additional mitigation has been proposed to mitigate inter-project cumulative effects between the two developments.
- 3.5.34 By year 10 there would be a medium scale of change in view over an intermediate to wide area of these PRow. The change would be experienced over a long term duration and would result in a moderate magnitude of effect. Therefore, in year 10 of operation, there would be a residual moderate adverse cumulative effect on views for users of Swine PRow located to the east of Wawne and the south-east of Land Areas C and F, which is considered to be significant. It is noted that the significant effect is primarily caused by the Turf Carr Solar Farm development in its own right.

*A165; and Black Tup Lane and Ings Lane*



- 3.5.35 The A165 is orientated north to south from the A1035 to Skirlaugh, for approximately 5.5km. It continues for a further 5km to the south of Skirlaugh.
- 3.5.36 Heading southwards from the roundabout junction with the A1035 Land Area B is a minimum distance of 475m west of the road, extending to 1km west of the road 1.4km south of A1035 junction. In addition, for a 740m section, Fields B5 and B6 are located to the east of the road, at a minimum distance of 210m. For the next 4km (as you head south) the road diverges from Land Areas B and C, from 1km east of Field B4 to 2.7km east of Field C9 at the south-east of the study area. The road then continues to diverge further away from Turf Carr Solar Farm, where it is between 3.5km and 4.8km from its eastern boundary.
- 3.5.37 Black Tup Lane and Ings Lane, are local roads, which are orientated north to south in between Land Area C and the A165, with views often similar to those from the A165.
- 3.5.38 For the A165, it has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is low. It was assessed at year 1 there would be a moderate/slight magnitude of effect, which is minor adverse and not significant. By year 10 the long term magnitude of effect was assessed as slight/negligible, which would be minor/negligible adverse and not significant.
- 3.5.39 For Black Tup Lane and Ings Lane, it has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is medium. It was assessed at year 1 there would be a slight magnitude of effect, which is moderate/minor adverse and not significant. By year 10 the long term magnitude of effect was assessed as negligible, which would be minor/negligible (tending towards negligible) adverse and not significant.
- 3.5.40 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Turf Carr Solar Farm would be visible from an approximate 2.5km section of the A165 between Long Riston and Skirlaugh (neither of them would be visible from the road south of Skirlaugh) and almost the entirety of Black Tup Lane and Ings Lane. However, site survey work has confirmed actual visibility of both the Proposed Development and Turf Carr Solar Farm would be far more limited than implied on the ZTV. In particular, there are unlikely to be anything other than negligible, very occasional and glimpsed views of the Turf Carr Solar Farm for road users heading south (and none for road users heading north). If at all visible, the Turf Carr Solar Farm would be considered an extension to the Proposed Development.
- 3.5.41 In these circumstances it is assessed that there would be no additional cumulative effects arising from both the Proposed Development and Turf Carr Solar Farm being operational simultaneously, on road users along the A165, Black Tup Lane or Ings Lane. With the assessed effects being as per those stated in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** for the Proposed Development alone.

#### *Meaux Lane/Meaux Road*

- 3.5.42 Meaux Lane/Meaux Road is a local road running broadly north to south from the A1035 at Routh in the north, to the centre of Wawne 6.94km to the south. The northern 4.35km of the road is known as Meaux Lane and it becomes Meaux Road at the point it crosses Holderness Drain. The road cuts through the centre of the study area for the Proposed Development and is adjacent to Land Areas D and F. At its closest it passes 950m west of Turf Carr Solar Farm.
- 3.5.43 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is medium. It was assessed at year 1 there would be a moderate magnitude of effect, which is moderate adverse and significant. By year 10 the long term magnitude of effect was assessed as moderate/slight, which is moderate/minor adverse and not significant.
- 3.5.44 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Turf Carr Solar Farm would be visible from various sections of the road. In particular, the 2.4km stretch which runs from Meaux Abbey Farm in the north, through Land Area F, to Field F17 in the south. However, site survey work has confirmed actual visibility of Turf Carr Solar Farm would be far more limited than implied on the ZTV, with the roadside hedgerow adjacent to this section of Meaux Lane/Meaux Road largely screening views. It is acknowledged however, there may be occasional glimpsed views above the hedgerow, or through gaps in the hedgerow, of elements of the infrastructure within Turf Carr Solar Farm. However, the section of road where these glimpsed views are most probable is to the west of Fields F11-F13 and the Proposed Development itself would add an extra layer of screening.
- 3.5.45 In these circumstances it is assessed that there would be no additional cumulative effects arising from both the Proposed Development and Turf Carr Solar Farm being operational simultaneously, on users of Meaux Lane/Meaux Road. With the assessed effects being as per those stated in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** for the Proposed Development alone.

#### *Kidhill Lane*

- 3.5.46 Kidhill Lane is orientated broadly east to west through the south of the study area. It is 3.64km long from the junction with Ings Lane and Swine Road in the east, to Meaux Lane/Meaux Road in the west. A 290m stretch of the road runs directly between Field C7 and the northern extents of Turf Carr Solar Farm.
- 3.5.47 The road runs through a flat open landscape with minimal vegetation as the fields are separated by drainage ditches. However, there are scattered trees and occasional woodland belts within the landscape which provide some visual screening. In addition there are occasional low level undulations in the landscape which have an exaggerated effect, on screening, due to the overall flat landscape.
- 3.5.48 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is medium. It was assessed at year 1 there would be a substantial/moderate magnitude of effect, which is major/moderate adverse and significant. By year 10 the long term

magnitude of effect was assessed as moderate, which is moderate adverse and not significant.

- 3.5.49 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Turf Carr Solar Farm would be visible from all the road except its very eastern end. However, site survey work has confirmed actual visibility of the developments would be more limited than implied on the ZTV.
  
- 3.5.50 For road users heading west, there would be filtered views of solar PV development on the horizon for approximately 1.5km. The presence of Turf Carr Solar Farm would extend the geographic area over which solar PV development would be visible. As road users approached both developments, there would be an approximate 800m stretch of the road where the scale of change in views would be large with solar development noticeable across the horizon, this would end with the 290m stretch of road directly between the Proposed Development and Turf Carr Solar Farm where the scale of change in view would be large. Once users had passed the Proposed Development and Turf Carr Solar Farm there would be heavily filtered views of Land Area F.
  
- 3.5.51 For road users heading east the overall views of solar development would not be as noticeable, however the northern extents of Turf Carr Solar Farm would extend views of solar development.
  
- 3.5.52 It is likely that the proposed Turf Carr Solar Farm would give rise to the same type, and broadly similar scale, of visual change as the Proposed Development, but over an extended geographic area than the Proposed Development alone.
  
- 3.5.53 If both the Proposed Development and Turf Carr Solar Farm were operational in combination, initially there would be a large scale of change in views along an intermediate stretch of the road. The change would be experienced over a medium term duration and would result in a substantial/moderate magnitude of effect. Therefore, in year 1 of operation, there would be a major/moderate adverse cumulative effect on views for users of Kidhill Lane, which is considered to be significant.
  
- 3.5.54 Both the Proposed Development and Turf Carr Solar Farm include new planting to help screen solar infrastructure. No further additional mitigation has been proposed to mitigate inter-project cumulative effects between the two developments.
  
- 3.5.55 By year 10 there would be a medium scale of change in view along a localised stretch of Kidhill Lane. The change would be experienced over a long term duration and would result in a moderate magnitude of effect. Therefore, in year 10 of operation, there would be a residual moderate adverse cumulative effect on views for road users along Kidhill Lane, which is considered to be significant.

*Lumbercote (residential property)*

- 3.5.56 This property is located 270m north-east of solar development in Field F11 and 390m south-west of solar development in Field C7. The north-western extents of Turf Carr Solar Farm are 280m east of the property.
- 3.5.57 It has been assessed in **ES Volume 4, Appendix 11.5: Residential Visual Amenity Assessment [EN010157/APP/6.4]** that the sensitivity of this receptor group is high. It was assessed at year 1 there would be a slight magnitude of effect, which is moderate adverse and not significant.
- 3.5.58 The cumulative ZTV presented on in **Appendix A** of this document indicates that potentially both the Proposed Development and Turf Carr Solar Farm would be visible from this property.
- 3.5.59 If both the Proposed Development and Turf Carr Solar Farm were operational at the same time this would result in new solar development to the north-east, south-west and east of the property. The addition of Turf Carr Solar Farm to the Proposed Development would increase the sense of enclosure from solar development on the property with both the Proposed Development and Turf Carr Solar Farm potentially visible simultaneously and in multiple directions.
- 3.5.60 However, the property is not orientated towards the Turf Carr Solar Farm and there are farm buildings and hedgerows between the property and Turf Carr Solar Farm. This is particularly relevant as the property is a bungalow, and ground level views are heavily screened.
- 3.5.61 The scale of change in view created by the Turf Carr Solar Farm would be less than that from the Proposed Development, due to the intervening screening, but it may be perceptible and would increase the geographic extent and direction of views in which solar development was visible.
- 3.5.62 If both the Proposed Development and Turf Carr Solar Farm were operational in combination, initially there would be a small scale of change in views. The change would be experienced over a medium term duration and would result in a slight magnitude of effect. Therefore, in year 1 of operation, there would be a moderate adverse cumulative effect, which is considered to be not significant (due to both developments likely to be heavily screened from ground floor windows and only Turf Carr development potentially visible from the rear garden).
- 3.5.63 It has been assessed in **ES Volume 4, Appendix 11.5: Residential Visual Amenity Assessment [EN010157/APP/6.4]** that by year 10 the long term magnitude of effect, created by the Proposed Development alone, would be slight/negligible. Therefore, as per the cumulative LVIA methodology detailed in **ES Volume 4, Appendix 11.1: Landscape and Visual Impact Assessment Methodology [EN010157/APP/6.4]**, receptors judged to experience negligible or slight/negligible magnitude of effects from the Proposed Development are not considered for cumulative effects. This is because any cumulative effects

considered significant, would primarily be caused by the cumulative development creating significant effects in their own right.

*Wawne Common Farm Cottage (residential property)*

- 3.5.64 This property is located 230m north-east of solar development in Field F11 and 440m south-west of solar development in Field C7. The north-western extents of Turf Carr Solar Farm are 350m east of the property.
- 3.5.65 It has been assessed in **ES Volume 4, Appendix 11.5: Residential Visual Amenity Assessment [EN010157/APP/6.4]** that the sensitivity of this receptor group is high. For Wawne Common Farm Cottage it was assessed at year 1 there would be a moderate/slight magnitude of effect, which is moderate adverse and not significant. By year 10 the long term magnitude of effect was assessed as slight, which is minor adverse and not significant.
- 3.5.66 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Turf Carr Solar Farm would be visible from this property.
- 3.5.67 If both the Proposed Development and Turf Carr Solar Farm were operational at the same time this would result in new solar development to the north-east, south-west and east of the property. The addition of Turf Carr Solar Farm to the Proposed Development would increase the sense of enclosure from solar development on the property with both the Proposed Development and Turf Carr Solar Farm potentially visible simultaneously and in multiple directions.
- 3.5.68 However, the property is not orientated towards the Turf Carr Solar Farm and there are farm buildings and hedgerows between the property and Turf Carr Solar Farm. In addition the garden is occupied by mature vegetation and trees, which provides additional screening.
- 3.5.69 The scale of change in view created by the Turf Carr Solar Farm would be less than that from the Proposed Development, due to the intervening screening, but it may be perceptible and would increase the geographic extent and direction of views in which solar development was visible.
- 3.5.70 If both the Proposed Development and Turf Carr Solar Farm were operational in combination, initially there would be a medium/small scale of change in views. The change would be experienced over a medium term duration and would result in a moderate/slight magnitude of effect. Therefore, in year 1 of operation, there would be a moderate adverse cumulative effect, which is considered to be not significant

(due to both developments likely to be heavily screened from ground floor windows and the rear garden).

- 3.5.71 Both the Proposed Development and Turf Carr Solar Farm include new planting to help screen solar infrastructure. No further additional mitigation has been proposed to mitigate inter-project cumulative effects between the two developments.
- 3.5.72 By year 10 there would be a small scale of change in views. The change would be experienced over a long term duration and would result in a moderate/slight magnitude of effect, which would be a moderate adverse cumulative effect, which is considered to be not significant (due to both developments likely to be heavily screened from ground floor windows and the rear garden).

### 3.6 22/03648/STPLF Carr Farm Solar Farm

- 3.6.1 This proposal is ID 14 in Tables 15-3 and 15-8 of **ES Volume 2 Chapter 15: Cumulative Effects [EN010157/APP/6.2]**. A combined ZTV for this development and the Proposed Development is presented in **Appendix A** of this document. The proposal occupies arable fields within LCA 19D: Central Holderness Open Farmland, and is directly adjacent to Fields E6, E9 and E10 to the east and Field E17 to the west.
- 3.6.2 The following receptor groups, as identified in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** and in combination within the ZTV in **Appendix A** of this document, have been considered within the cumulative assessment:
- LCA 18A: River Hull Corridor;
  - LCA 19D: Central Holderness Open Farmland;
  - PRow Tickton bridleway no.5;
  - Tickton PRow located between Tickton and Weel;
  - Wawne PRow located between Weel and Wawne;
  - A1035; and
  - Meaux Lane/Meaux Road.

#### **Cumulative landscape effects during operation (including maintenance)**

##### *LCA 18A: River Hull Corridor*

- 3.6.3 With reference specifically to the tract of LCA 18A: River Hull Corridor located on the arable landscape to the east and south of Weel, it has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that during year 1 of operation the Proposed Development on its own would result in a moderate/minor adverse effect on existing landscape character, which is considered to be not significant. By year 10 of operation, the Proposed Development on its own would result in a moderate/minor adverse (tending towards



minor) effect on existing landscape character, which is considered to be not significant.

- 3.6.4 The western boundary of Carr Farm Solar Farm is located on the boundary of, but outside, LCA 18A: River Hull Corridor.
- 3.6.5 There would be no direct cumulative effects on the landscape form, pattern or character of LCA 18A: River Hull Corridor. Whilst the Carr Farm Solar Farm site would be visible from within LCA 18A: River Hull Corridor, it would not adversely affect any identified landscape characteristics and would not increase cumulative landscape effects, in this LCA, were the Proposed Development and Carr Farm Solar Farm operational simultaneously. Therefore, any cumulative operational effects on the character of LCA 18A: River Hull Corridor would be no greater than those identified for the Proposed Development alone.

#### *LCA 19D: Central Holderness Open Farmland*

- 3.6.6 With respect to LCA 19D: Central Holderness Open Farmland, once constructed Carr Farm Solar Farm would be perceived as part of the overall Peartree Hill Solar Farm development, located on the fields directly between E17, to the west, and E10 to the east. The cumulative ZTV presented in **Appendix A** of this document illustrates that both the Proposed Development and Carr Farm Solar Farm would potentially be visible across a tract of land approximately 4km in width and 5km in length, from Tickton in the north, to Weel in the west, Wawne in the south and Meaux Lane/Meaux Road in the east.
- 3.6.7 With reference specifically to the tract of LCA 19D: Central Holderness Open Farmland located on the arable landscape between the villages of Tickton, Leven, Long Riston, Skirlaugh, Wawne and Weel, it has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that during year 1 of operation the Proposed Development on its own would result in a substantial/moderate magnitude of effect over localised areas and a moderate/slight magnitude of effect over a wider intermediate area. Overall therefore, there would be a moderate adverse effect on existing landscape character, which is considered to be significant. By year 10 of operation, the Proposed Development on its own would result in a moderate magnitude of effect which would be a moderate/minor adverse effect on existing landscape character, which is considered to be not significant.
- 3.6.8 It is likely that the proposed Carr Farm Solar Farm would give rise to the same type and broadly similar scale of landscape change, but over a much smaller radius, than the Proposed Development within LCA 19D: Central Holderness Open Farmland.
- 3.6.9 The Carr Farm Solar Farm would 'fill in' the existing gap separating Fields E13-E17 and the remainder of Land Area E. As a result it would not noticeably extend the geographic area over which landscape effects would be noticeable, but would very slightly extend the geographic area where there would be a large to medium scale of change within LCA 19D: Central Holderness Open Farmland. Therefore, in

combination, whilst the scale of change would remain the same, it would cover a very slightly wider geographic area.

- 3.6.10 Overall the Proposed Development would have a much larger impact on landscape character within LCA 19D: Central Holderness Open Farmland, than the Carr Farm Solar Farm project.
- 3.6.11 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of LCA 19D: Central Holderness Open Farmland to solar PV development and ancillary infrastructure is low. If both the Proposed Development and Carr Farm Solar Farm were operational in combination, there would be a large to medium scale of change over an intermediate area of LCA 19D: Central Holderness Open Farmland that would be medium term in duration, resulting in a substantial/moderate magnitude of effect. As the sensitivity of the receptor has been assessed as low this would result in a moderate adverse cumulative effect on existing landscape character, which is considered to be significant.
- 3.6.12 Mitigation in the form of an **Outline LEMP [EN010157/APP/7.5]** has already been proposed for the Proposed Development. In addition, mitigation proposals have been submitted with the planning application for Carr Farm Solar Farm. No further additional mitigation has therefore been proposed to mitigate inter-project cumulative effects between the two developments.
- 3.6.13 By year 10, a considerable amount of new hedgerow planting is proposed throughout LCA 19D: Central Holderness Open Farmland and once established these would further restrict the extent of effects on landscape character within LCA 19D: Central Holderness Open Farmland.
- 3.6.14 Similar to year 1 cumulative operational effects, the Carr Farm Solar Farm would not have an impact on the overall scale of effects, but would slightly increase the geographic area over which impacts would be experienced. These effects would be more contained than during year 1 of operation due to the combined mitigation proposals. In combination, a large and medium scale of landscape change would therefore be restricted to a more localised extent of LCA 19D: Central Holderness Open Farmland and would be long term in duration resulting in a moderate magnitude of effect.
- 3.6.15 Therefore, in year 10 of operation, with reference specifically to the tract of LCA 19D: Central Holderness Open Farmland located on the arable landscape between the villages of Tickton, Leven, Long Riston, Skirlaugh, Wawne and Weel there is likely to be a residual moderate/minor adverse cumulative effect on existing landscape character, which is considered to be not significant.

#### **Cumulative visual effects during operation (including maintenance)**

##### *PRoW Tickton bridleway no.5*

- 3.6.16 This bridleway is orientated north to south, from south of Tickton in the north, along North Carr Lane and connecting with Wawne footpath no.9 in the south. The bridleway is 2.77km in length and directly passes the western boundary of Carr



Farm Solar Farm for the Site's full 2km length; the final 650m of which are also adjacent to the eastern boundary of Field E17.

- 3.6.17 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is high/medium. It was assessed at year 1 there would be a moderate magnitude of effect, which is moderate adverse and significant. By year 10 the long term magnitude of effect was assessed as slight, which is moderate/minor (tending towards minor) adverse and not significant.
- 3.6.18 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Carr Farm Solar Farm would be visible for the full length of the bridleway.
- 3.6.19 For users of the bridleway heading north and south there would be near and prominent views of solar development with the development enclosing bridleway users for a 650m stretch. Hedgerows and trees would filter some views into the development along various sections of the bridleway. There would be a cumulative increase in sequential views of solar development for users of this bridleway heading in both directions, and an increase in the overall perception of solar development within the landscape.
- 3.6.20 It is likely that the proposed Carr Farm Solar Farm would give rise to the same type, and broadly similar scale, of visual change as the Proposed Development, but over a longer length of the bridleway.
- 3.6.21 If both the Proposed Development and Carr Farm Solar Farm were operational in combination, initially there would be a large scale of change in views along almost the full length of the bridleway. The change would be experienced over a medium term duration and would result in a substantial/moderate magnitude of effect. Therefore, in year 1 of operation, there would be a major/moderate adverse cumulative effect on views for users of Tickton bridleway no.5, which is considered to be significant.
- 3.6.22 Mitigation in the form of an **Outline LEMP [EN010157/APP/7.5]** has already been proposed for the Proposed Development. In addition, mitigation proposals have been submitted with the planning application for Carr Farm Solar Farm. No further additional mitigation has therefore been proposed to mitigate inter-project cumulative effects between the two developments.
- 3.6.23 By year 10 there would be a medium scale of change in view along almost the full length of the bridleway. The change would be experienced over a long term duration and would result in a substantial/moderate magnitude of effect. Therefore, in year 10 of operation, there would be a residual major/moderate (tending towards moderate) adverse cumulative effect on views for users of Tickton bridleway no.5, which is considered to be significant.

*Tickton PRow located between Tickton and Weel*

- 3.6.24 This receptor group includes all the PRoW in the landscape between the River Hull in the west, Tickton in the north, Weel in the south and the western extents of Land Area E in the east, unless the PRoW has been individually identified elsewhere (i.e. Tickton bridleway no.5 is excluded from this group).
- 3.6.25 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is high/medium. It was assessed in year 1 of operation there would be a slight magnitude of effect, which is moderate/minor adverse and not significant. By year 10 the long term magnitude of effect was assessed as slight/negligible, which is moderate/minor (tending towards minor) adverse and not significant.
- 3.6.26 Carr Farm Solar Farm is located within the east of this area, with the eastern end of Tickton footpath no.7 finishing at the western boundary of the Carr Farm site and Tickton footpath no.6 adjacent to the northern boundary of the Carr Farm site.
- 3.6.27 Views within this landscape are across an open and flat arable landscape with large fields demarcated by boundary ditches and hedgerows. There are occasional uniform strips of woodland blocks which foreshorten views. A steel pylon overhead electricity line is visible crossing the landscape from north to south.
- 3.6.28 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Carr Farm Solar Farm would be visible from the majority of the PRoW in this area. However, site survey work has confirmed actual visibility of the Proposed Development would be far more limited than implied on the ZTV. The level landscape, occasional hedgerow field boundaries and woodland blocks providing a high level of screening; for example the linear woodland blocks adjacent to Old Keld Drain and Old Main Drain both heavily screen views across the landscape. The most open views of Carr Farm Solar Farm would be from the sections of PRoW closest to that site i.e. Tickton footpath no's.6 and 7.
- 3.6.29 For users of these PRoW it is likely that Carr Farm Solar Farm would be visible over an intermediate area. However, the level landscape and occasional hedgerows would provide a good level of screening. Occasionally the Proposed Development and Carr Farm Solar Farm would be visible simultaneously and sequentially from sections of the PRoW closest to Land Area E and Carr Farm Solar Farm. However, the Proposed Development in Fields E15-E17 would often be largely screened by intervening vegetation. For users of these PRoW there would be a perception of solar development across the landscape, however, due to the low level heights of both the Proposed Development and Carr Farm Solar Farm it would not be overbearing. The Proposed Development and Carr Farm Solar Farm would be perceived as a single larger development.
- 3.6.30 It is likely that the proposed Carr Farm Solar Farm would give rise to the same type of visual change as the Proposed Development, but due to the closer proximity to the PRoW in this area it would be of larger scale and extend the overall geographic extents of perception of solar development.
- 3.6.31 If both the Proposed Development and Carr Farm Solar Farm were operational in combination, there would initially be a medium scale of change in views over an

intermediate area of these PRow. The change would be experienced over a medium term duration and would result in a moderate magnitude of effect. Therefore, in year 1 of operation, there would be a moderate adverse cumulative effect on views for users of Tickton PRow located between Tickton and Weel, which is considered to be significant. It is noted that the significant effect is primarily caused by the Carr Farm Solar Farm development in its own right.

- 3.6.32 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that by year 10 the long term magnitude of effect, created by the Proposed Development alone, would be slight/negligible. Therefore, as per the cumulative LVIA methodology detailed in **ES Volume 4, Appendix 11.1: Landscape and Visual Impact Assessment Methodology [EN010157/APP/6.4]** receptors judged to experience negligible or slight/negligible magnitude of effects from the Proposed Development, are not considered for cumulative effects. This is because any cumulative effects considered significant, would primarily be caused by the cumulative development creating significant effects in their own right.

*Wawne PRow located between Weel and Wawne*

- 3.6.33 This receptor group includes all the PRow in the landscape between the River Hull in the west, Weel and Land Area E in the north, Wawne in the south and the western extents of Land Area F in the east.
- 3.6.34 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is high/medium. It was assessed at both year 1 and year 10 there would be a slight magnitude of effect, which is moderate/minor adverse and not significant.
- 3.6.35 Carr Farm Solar Farm is located north of this area, with the northern end of Wawne footpath no.7 approximately 170m south of the southern boundary of Carr Farm Solar Farm.
- 3.6.36 The landscape is flat and open with fields separated by drainage ditches rather than hedgerow boundaries, albeit there are very occasional woodland belts and strips of scrub vegetation which would partially filter views of solar PV development within Land Areas E and F and the Carr Farm site.
- 3.6.37 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Carr Farm Solar Farm would be visible from the majority of these PRow. However, site survey work has confirmed actual visibility of both developments would be far more limited than implied on the ZTV with exception of from Wawne footpath no.7. In addition, the constructed Proposed Development in Fields E16 and E17 would screen some views of Carr Farm Solar Farm.
- 3.6.38 For users of these PRow it is likely that the southern boundary only of Carr Farm Solar Farm would be visible over a localised area of Wawne footpath no.7,

simultaneously as views of development in Land Areas E and F. When visible Carr Farm Solar Farm would be perceived as part of the Proposed Development.

- 3.6.39 It is likely that the proposed Carr Farm Solar Farm would give rise to the same type of visual change as the Proposed Development, but over a much more contained geographic area.
- 3.6.40 In these circumstances it is assessed that there would be no additional cumulative effects arising from both the Proposed Development and Carr Farm Solar Farm being operational simultaneously on users of Wawne PRoW located between Weel and Wawne. The assessed effects would therefore be as per those stated in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** for the Proposed Development alone.

#### *A1035*

- 3.6.41 The cumulative ZTV presented in **Appendix A** of this document illustrates that both developments would potentially be visible from approximately 1km of the A1035 from the eastern extents of Tickton towards Leven.
- 3.6.42 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is low. It was assessed in year 1 there would be a moderate/slight magnitude of effect, which is minor adverse and not significant. It was assessed in year 10 there would be a moderate magnitude of effect, which is moderate/minor adverse and not significant
- 3.6.43 Although the cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Carr Farm Solar Farm would be visible from 1km section of the A1035, site survey work has confirmed actual visibility of the developments would be far more limited than implied on the ZTV and it is considered that the Carr Farm Solar Farm would not be visible at all, with views screened by the roadside hedgerow.
- 3.6.44 In these circumstances it is assessed that there would be no additional cumulative effects arising from both the Proposed Development and Carr Farm Solar Farm being operational simultaneously on road users on the A1035. The assessed effects would therefore be as per those stated in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** for the Proposed Development alone.

#### *Meaux Lane/Meaux Road*

- 3.6.45 Meaux Lane/Meaux Road is a local road running broadly north to south from the A1035 at Routh in the north, to the centre of Wawne 6.94km to the south. The northern 4.35km of the road is known as Meaux Lane and it becomes Meaux Road at the point it crosses Holderness Drain. The road cuts through the centre of the study area for the Proposed Development and adjacent to Land Areas D and F. At its closest it passes 1.6km east of Carr Farm Solar Farm.
- 3.6.46 It has been assessed in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** that the sensitivity of this receptor group is medium. It was

assessed at year 1 there would be a moderate magnitude of effect, which is moderate adverse and significant. By year 10 the long term magnitude of effect was assessed as moderate/slight, which is moderate/minor adverse and not significant.

- 3.6.47 The cumulative ZTV presented in **Appendix A** of this document indicates that potentially both the Proposed Development and Carr Farm Solar Farm would be visible from various sections of the road along its full length. However, site survey work has confirmed actual visibility of the developments would be far more limited than implied on the ZTV. In particular, there are unlikely to be any views of the Carr Farm Solar Farm for road users. Furthermore, once constructed the Proposed Development would provide an additional high level of screening between the road and Carr Farm Solar Farm.
- 3.6.48 In these circumstances it is assessed that there would be no additional cumulative effects arising from both the Proposed Development and Carr Farm Solar Farm being operational simultaneously on users of Meaux Lane/Meaux Road. The assessed effects would therefore be as per those stated in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]** for the Proposed Development alone.

### 3.7 All proposed solar farm developments in combination

- 3.7.1 It is recognised that if the Proposed Development and all the identified other existing and/or approved solar farm developments were consented and built out that the receptors outlined below would experience greater cumulative effects than detailed above. For the reasons outlined above the type and scale of the effects would be broadly the same as described in **ES Volume 2, Chapter 11: Landscape and Visual [EN010157/APP/6.2]**, but would be experienced over wider geographic areas.
- 3.7.2 This is particularly the case where Kenley House Solar Farm, Field House Solar Farm and Carr Farm Solar Farm are all located in close proximity to each other to the west of Land Areas D, E and F and south and east of Fields E15-E17. For receptors within this location it is likely that the Proposed Development and the relevant other existing and/or proposed solar farms would all be perceived as one development and whilst the type and scale of effects would be similar as those identified for the Proposed Development alone, they would be extended over a wider area.
- 3.7.3 Those receptors which would experience greater cumulative effects if the Proposed Development and all the identified other existing and/or approved solar farm developments were built are:
- LCA 18A: River Hull Corridor;
  - LCA 19D: Central Holderness Open Farmland;
  - PRow Tickton bridleway no.5; and
  - Tickton PRow located between Tickton and Weel (primarily from Field House Solar Farm and Carr Farm Solar Farm).

## 3.8 Cumulative LVIA Summary

- 3.8.1 For the reasons detailed above, the cumulative LVIA has focused on the five solar farm proposals within 5km of the Order Limits for Peartree Hill Solar Farm. In particular, the four solar farms known as Kenley House, Field House, Turf Carr and Carr Farm Solar Farms, in combination with the Proposed Development, would create significant cumulative effects on landscape character and visual amenity. All four of these proposals are directly adjacent, or in very close proximity to the Proposed Development and it is considered that they would generally be perceived as a single larger development.
- 3.8.2 Effects from all the identified other existing and/or approved solar farm developments would be of a similar type and scale to those created by the Proposed Development alone, but individually over a much smaller geographic area due to the size of those identified other existing and/or approved developments in comparison to the Proposed Development. In combination, the effects would be experienced over a wider geographic area. Where significant cumulative effects have been identified, it is often on receptors where significant effects had already been identified as a result of the Proposed Development alone.
- 3.8.3 Those receptors which would experience significant cumulative landscape effects are:
- LCA 19D: Central Holderness Open Farmland;
    - Whilst there are cumulative effects over a wider geographic area, the overall effects are not greater than those identified for the Proposed Development alone.
- 3.8.4 Those receptors which would experience significant cumulative visual effects are:
- PRow Tickton bridleway no.5;
    - Year 1 and year 10 cumulative significant effects are greater than for those identified for the Proposed Development alone, impacted by Kenley House, Field House and Carr Farm Solar Farms, in addition to the Proposed Development.
  - Wawne PRow located between Weel and Wawne
    - Year 1 and year 10 cumulative significant effects have been identified, primarily caused by Kenley House Solar Farm development in its own right.
  - Meaux Lane/Meaux Road
    - Significant cumulative effects identified, but overall not greater than those identified for the Proposed Development alone.
  - PRow Riston footpath no.2;
    - Significant cumulative effects identified, but overall not greater than those identified for the Proposed Development alone.
  - PRow Riston footpath no.1;

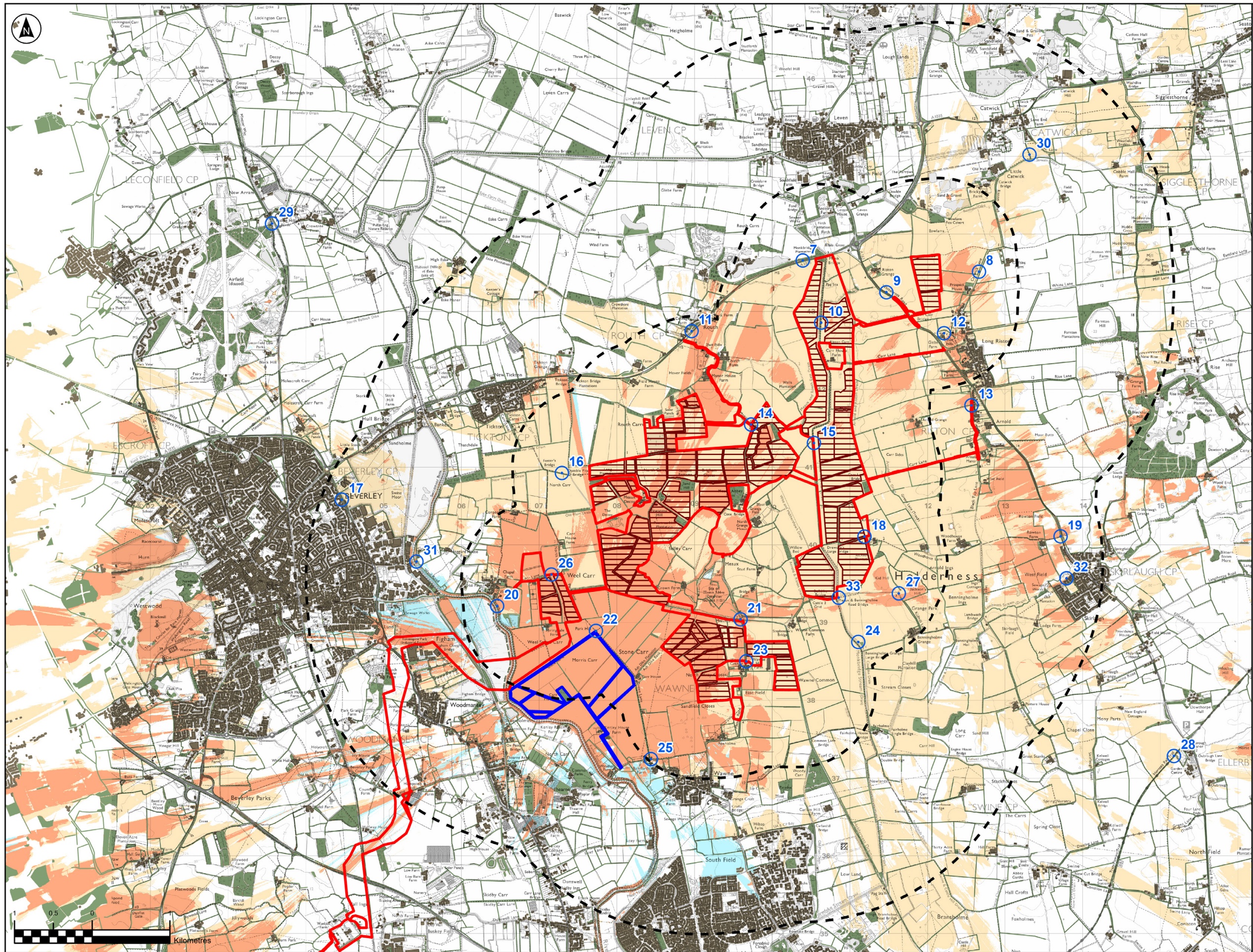


- Significant cumulative effects identified, but overall not greater than those identified for the Proposed Development alone.
  - Swine PRoW located to the east of Wawne and the south-east of Land Areas C and F;
    - Year 1 and year 10 cumulative significant effects have been identified, primarily caused by Turf Carr Solar Farm development in its own right.
  - Kidhill Lane;
    - Year 10 cumulative significant effects have been identified (not significant from the Proposed Development alone), due to combination with Turf Carr Solar Farm.
  - Springdale Farm (residential property)
    - Year 10 cumulative significant effects have been identified (not significant from the Proposed Development alone).
- 3.8.5 It is not considered that the Creyke Beck Solar Farm in combination with the Proposed Development would create any cumulative significant landscape and visual effects.

## **APPENDIX A – ZTV FIGURES**

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- | No. | Viewpoint  |
|-----|--|
| 7   | A1035  |
| 8   | Catwick Lane                                     |
| 9   | A165, White Cross Road                           |
| 10  | Monk Dike (north), PRoW Riston Footpath no.2     |
| 11  | A1035 at Routh                                   |
| 12  | Long Riston Church, PRoW Riston Footpath no.5    |
| 13  | Long Riston (Arnold)                             |
| 14  | Meaux Lane (north)                               |
| 15  | Monk Dike (south), PRoW Riston Footpath no.7     |
| 16  | PRoW Tickton Footpath no.6                       |
| 17  | A164 eastern edge of Beverley                    |
| 18  | Woodhouse Lane, PRoW Riston Footpath no.1        |
| 19  | A165 north of Skirlaugh                          |
| 20  | River Hull at Weel, PRoW Tickton Footpath no.12  |
| 21  | Meaux Lane (south)                               |
| 22  | PRoW Tickton Bridleway no.5                      |
| 23  | Meaux Road at Wawne Grange                       |
| 24  | Cowdike Drain, PRoW Swine Footpath no.7          |
| 25  | PRoW Wawne Footpath no.11 / Grove Lane           |
| 26  | Carr Lane, east of Weel                          |
| 27  | Kidhill Lane                                     |
| 28  | Trans Pennine Trail                              |
| 29  | Minster Way                                      |
| 30  | PRoW Catwick Footpath no.3                       |
| 31  | Weel Road/ River Hull                            |
| 32  | Barn Street, Skirlaugh                           |
| 33  | Meaux and Benningholme Road Bridge, Kidhill Lane |

A3

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<div><div></div><div>Order Limits</div></div> <div><div></div><div>Distance radii from fields hosting solar PV modules (1,3km)</div></div> <div><div></div><div>Proposed areas for solar PV modules</div></div> <div><div></div><div>Kenley House Solar Farm</div></div>	<div><div></div><div>Viewpoints</div></div> <div><div></div><div>Existing hedges/woodland (modelled at 2m/10m)</div></div> <div><div></div><div>Existing buildings (modelled at 7.5m)</div></div>	<div><div></div><div>Zone of Theoretical Visibility</div></div> <div><div></div><div>Proposed Development may be visible</div></div> <div><div></div><div>Kenley House Solar Farm may be visible</div></div> <div><div></div><div>Both may be visible</div></div>
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Notes: This drawing is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the Viewshed routine in the Visibility Analysis plugin for GIS. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands, hedgerows and buildings. A digital surface model (DSM) has been derived from DEFRA 2022 LIDAR 2m DTM height data with the locations of woodland and buildings taken from the OS Open Map Local dataset. Buildings have been modelled with an assumed height of 7.5m and woodland an assumed height of 10m, representing a conservative estimate of average heights within the study area. Hedgerows have been digitised and modelled with an assumed height of 2m. The model does not take into account some localised features such as small copses or individual trees and therefore still gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be less than that suggested by this plan. The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a derived DSM and has a 5m resolution.

P01	20/12/2024	EF	LY	KC	ZF
Rev	Date	By	Chkd	Appd	Authd

Client

**RWE**

Designer

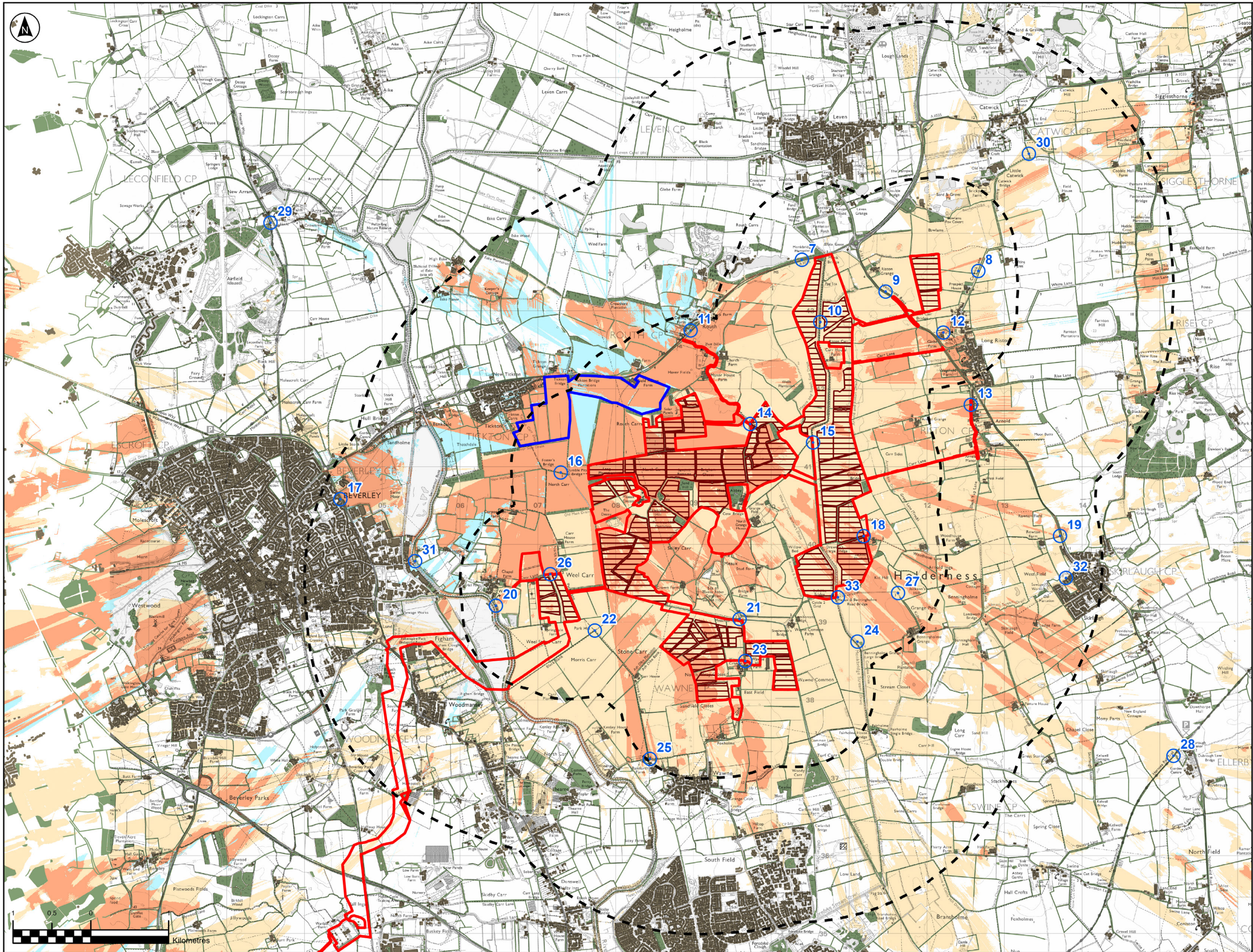
**RSK**

Project Name  
Peartree Hill Solar Farm

Drawing Title  
Environmental Statement  
Volume 4, Appendix 15.2 -  
Detailed Cumulative  
Landscape and Visual  
Impact Assessment,  
Appendix A, Figure 1  
Proposed Development &  
22/01208/STPLF - Kenley  
House Solar Farm ZTV

Scale at A3 1:45,000	Coordinate System British National Grid
Status DCO Application	
PRIS Number EN010157/APP16.4	Rev P01





- | No. | Viewpoint  |
|-----|--|
| 7   | A1035  |
| 8   | Catwick Lane                                     |
| 9   | A165, White Cross Road                           |
| 10  | Monk Dike (north), PRoW Riston Footpath no.2     |
| 11  | A1035 at Routh                                   |
| 12  | Long Riston Church, PRoW Riston Footpath no.5    |
| 13  | Long Riston (Arnold)                             |
| 14  | Meaux Lane (north)                               |
| 15  | Monk Dike (south), PRoW Riston Footpath no.1     |
| 16  | PRoW Tickton Footpath no.6                       |
| 17  | A164 eastern edge of Beverley                    |
| 18  | Woodhouse Lane, PRoW Riston Footpath no.1        |
| 19  | A165 north of Skirlaugh                          |
| 20  | River Hull at Weel, PRoW Tickton Footpath no.12  |
| 21  | Meaux Lane (south)                               |
| 22  | PRoW Tickton Bridleway no.5                      |
| 23  | Meaux Road at Wawne Grange                       |
| 24  | Cowdike Drain, PRoW Swine Footpath no.7          |
| 25  | PRoW Wawne Footpath no.11 / Grove Lane           |
| 26  | Carr Lane, east of Weel                          |
| 27  | Kidhill Lane                                     |
| 28  | Trans Pennine Trail                              |
| 29  | Minster Way                                      |
| 30  | PRoW Catwick Footpath no.3                       |
| 31  | Weel Road/ River Hull                            |
| 32  | Barn Street, Skirlaugh                           |
| 33  | Meaux and Benningholme Road Bridge, Kidhill Lane |

Key	Zone of Theoretical Visibility
Order Limits	Proposed Development may be visible
Distance radii from fields hosting solar PV modules (1, 3km)	Field House Solar Farm may be visible
Proposed areas for solar PV modules	Both may be visible
Field House Solar Farm	

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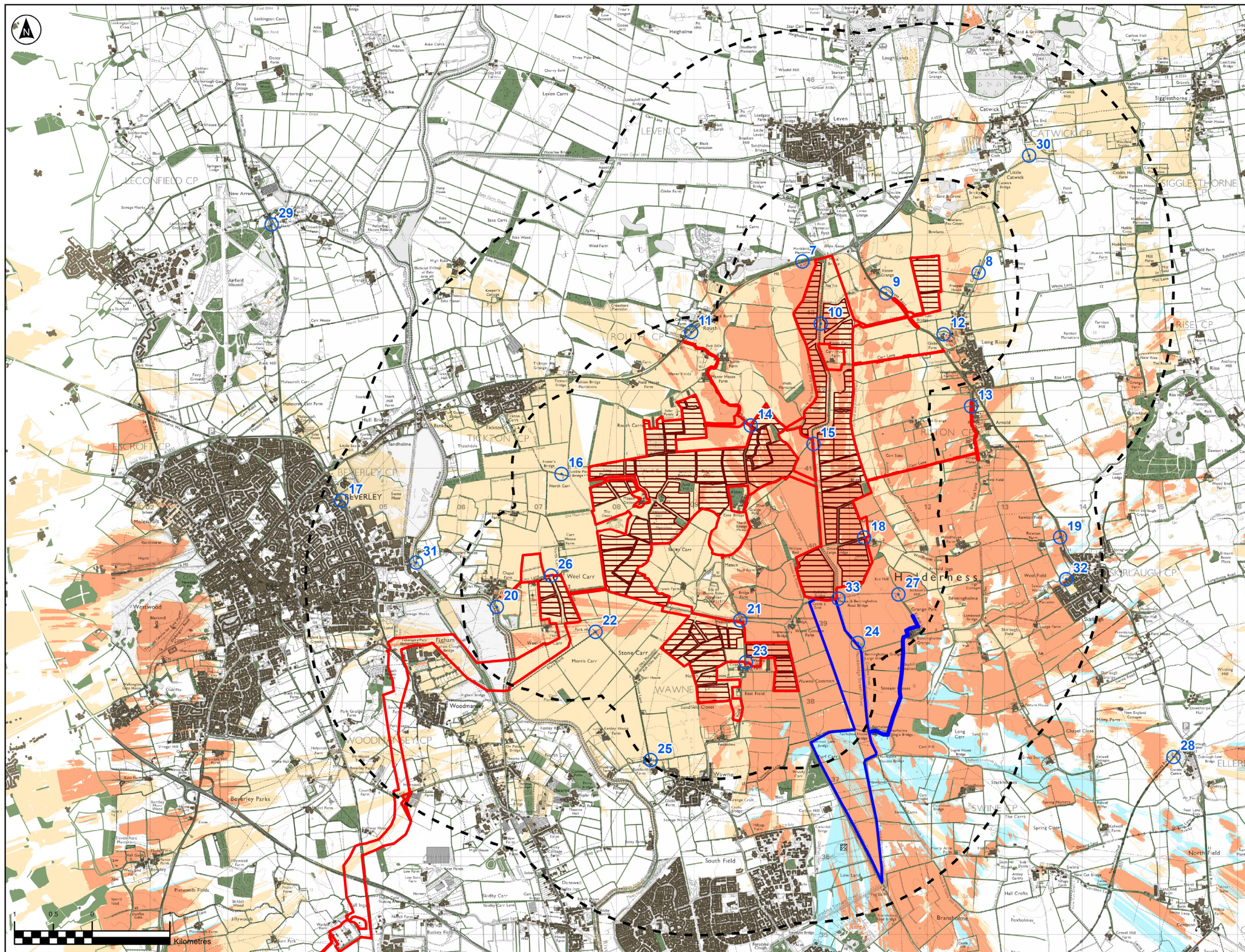
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PO	08/11/2024	EF	ZF	LY	ZF
Rev	Date	By	Chkd	Appd	Authd

Client	Project Name
	Peartree Hill Solar Farm
Designer	Drawing Title
	Environmental Statement Volume 4, Appendix 15.2 - Detailed Cumulative Landscape and Visual Impact Assessment, Appendix A, Figure 2 Proposed Development & 22/00824/STPLF - Field House Solar Farm ZTV

Scale at A3	Coordinate System
1:48,000	British National Grid
Notes	
DCO Application	
PRIS Number	Rev
EN010157/APPI6.4	P01

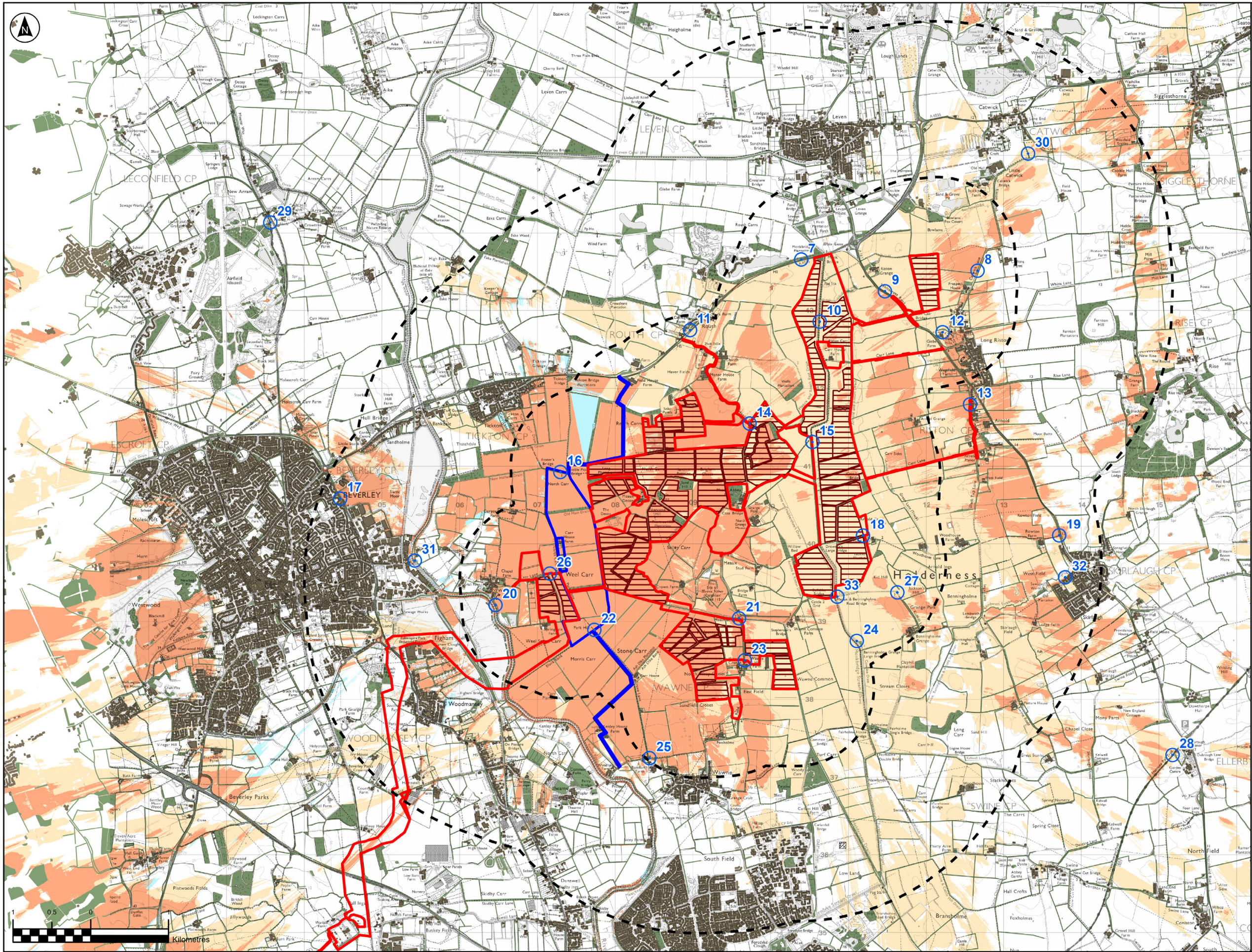




- | No. | Viewpoint   | A3 |
|-----|---|----|
| 7   | A1035   |    |
| 8   | Catwick Lane  |    |
| 9   | A165, White Cross Road                              |    |
| 10  | Monk Dike (north), PRoW Riston<br>Footpath no.2     |    |
| 11  | A1035 at Routh                                      |    |
| 12  | Long Riston Church, PRoW Riston<br>Footpath no.5    |    |
| 13  | Long Riston (Arnold)                                |    |
| 14  | Meaux Lane (north)                                  |    |
| 15  | Monk Dike (south), PRoW Riston<br>Footpath no.2     |    |
| 16  | PRoW Tickton Footpath no.6                          |    |
| 17  | A164 eastern edge of Beverley                       |    |
| 18  | Woodhouse Lane, PRoW Riston<br>Footpath no.1        |    |
| 19  | A165 north of Skirlaugh                             |    |
| 20  | River Hull at Weel, PRoW Tickton<br>Footpath no.12  |    |
| 21  | Meaux Lane (south)                                  |    |
| 22  | PRoW Tickton Bridleway no.5                         |    |
| 23  | Meaux Road at Wawne Grange                          |    |
| 24  | Cowdike Drain, PRoW Swine<br>Footpath no.7          |    |
| 25  | PRoW Wawne Footpath no.11 /<br>Grove Lane           |    |
| 26  | Carr Lane, east of Weel                             |    |
| 27  | Kidhill Lane  |    |
| 28  | Trans Pennine Trail                                 |    |
| 29  | Minster Way   |    |
| 30  | PRoW Catwick Footpath no.3                          |    |
| 31  | Weel Road/ River Hull                               |    |
| 32  | Barn Street, Skirlaugh                              |    |
| 33  | Meaux and Benningholme Road<br>Bridge, Kidhill Lane |    |

<div><div><div>Key</div><div><div><div><div><div><div></div></div></div><div>Order Limits</div></div><div><div><div><div><div></div></div></div><div>Distance radii from fields hosting solar PV modules (1, 3km)</div></div><div><div><div><div><div></div></div></div><div>Proposed areas for solar PV modules</div></div><div><div><div><div><div></div></div></div><div>Turf Carr Solar Farm</div></div></div></div><div><div><div><div><div></div></div></div><div>Viewpoints</div></div><div><div><div><div><div></div></div></div><div>Existing hedges/woodland (modelled at 2m/10m)</div></div><div><div><div><div><div></div></div></div><div>Existing buildings (modelled at 7.5m)</div></div></div></div><div><div><div><div><div></div></div></div><div>Zone of Theoretical Visibility</div></div><div><div><div><div><div></div></div></div><div>Proposed Development may be visible</div></div><div><div><div><div><div></div></div></div><div>Turf Carr Solar Farm may be visible</div></div><div><div><div><div><div></div></div></div><div>Both may be visible</div></div></div></div></div></div><div><div><div><div><div></div></div></div><div>Notes: This drawing is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the Viewshed routine in the Visibility Analysis plugin for QGIS. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands, hedgerows and buildings. A digital surface model (DSM) has been derived from DEFRA 2022 LiDAR 2m DTM height data with the locations of woodland and buildings taken from the OS Open Map Local dataset. Buildings have been modelled with an assumed height of 7.5m and woodland an assumed height of 10m, representing a conservative estimate of average heights within the study area. Hedgerows have been digitised and modelled with an assumed height of 2m. The model does not take into account some localised features such as small copses or individual trees and therefore still gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be less than that suggested by this plan. The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a derived DSM and has a 5m<sup>2</sup> resolution.</div></div></div></div></div><div><div><div><div><div></div></div></div><div>Client</div></div><div><div><div><div><div></div></div></div><div>Designer</div></div></div></div><div><div><div><div><div></div></div></div><div>Project Name</div></div><div><div><div><div><div></div></div></div><div>Drawing Title</div></div></div></div><div><div><div><div><div></div></div></div><div>Scale at A3</div></div><div><div><div><div><div></div></div></div><div>Coordinate System</div></div></div><div><div><div><div><div></div></div></div><div>Status</div></div><div><div><div><div><div></div></div></div><div>DCO Application</div></div></div><div><div><div><div><div></div></div></div><div>PRIS Number</div></div><div><div><div><div><div></div></div></div><div>Rev</div></div></div></div></div><div><div><div><div><div></div></div></div><div>1:48,000</div></div><div><div><div><div><div></div></div></div><div>British National Grid</div></div></div><div><div><div><div><div></div></div></div><div>Appendix A, Figure 3</div></div><div><div><div><div><div></div></div></div><div>Proposed Development &amp; 22/02775/STPLF – Turf Carr Solar Farm ZTV</div></div></div></div></div></div></div></div></div></div> </									
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No.	Viewpoint
7	A1035
8	Catwick Lane
9	A165, White Cross Road
10	Monk Dike (north), PRoW Riston Footpath no.2
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24	Cowdike Drain, PRoW Swine Footpath no.7
25	PRoW Wawne Footpath no.11 / Grove Lane
26	Carr Lane, east of Weel
27	Kidhill Lane
28	Trans Pennine Trail
29	Minster Way
30	PRoW Catwick Footpath no.3
31	Weel Road/ River Hull
32	Barn Street, Skirlaugh
33	Meaux and Benningholme Road Bridge, Kidhill Lane

A3

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Key	Viewpoints	Zone of Theoretical Visibility
Order Limits	Viewpoints	Proposed Development may be visible
Distance radii from fields hosting solar PV modules (1, 3km)	Existing hedges/woodland (modelled at 2m/10m)	Carr Farm Solar Farm may be visible
Proposed areas for solar PV modules	Existing buildings (modelled at 7.5m)	Both may be visible
Carr Farm Solar Farm		

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P01	20/12/2024	EF	ZF	LY	ZF
Rev	Date	By	Chkd	Appd	Authd

Client  
**RWE**

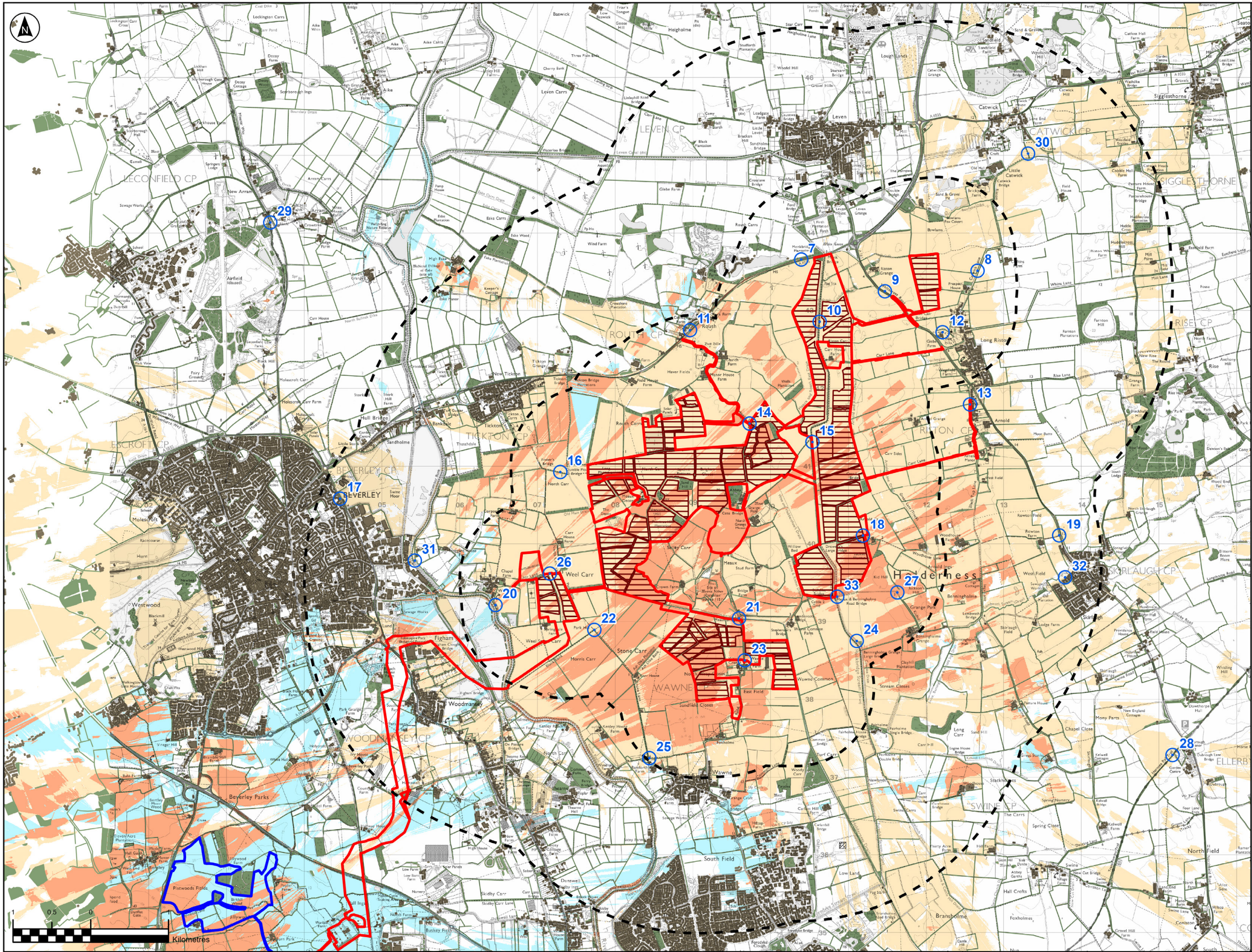
Designer  
**RSK**

Project Name  
Peartree Hill Solar Farm

Drawing Title  
Environmental Statement  
Volume 4, Appendix 15.2 -  
Detailed Cumulative  
Landscape and Visual  
Impact Assessment,  
Appendix A, Figure 4  
Proposed Development,  
22/03648/STPLF &  
22/01811/EI/ASCR -  
Carr Farm Solar Farm ZTV

Scale at A3 1:48,000	Coordinate System British National Grid
Status DCO Application	
PRIS Number EN010157/APPI6.4	Rev P01





- | No. | Viewpoint  |
|-----|--|
| 7   | A1035  |
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| 21  | Meaux Lane (south)                               |
| 22  | PRoW Tickton Bridleway no.5                      |
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| 24  | Cowdike Drain, PRoW Swine Footpath no.7          |
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| 26  | Carr Lane, east of Weel                          |
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| 28  | Trans Pennine Trail                              |
| 29  | Minster Way                                      |
| 30  | PRoW Catwick Footpath no.3                       |
| 31  | Weel Road/ River Hull                            |
| 32  | Barn Street, Skirlaugh                           |
| 33  | Meaux and Benningholme Road Bridge, Kidhill Lane |

Key	Viewpoints	Zone of Theoretical Visibility
Order Limits	Viewpoints	Proposed Development may be visible
Distance radii from fields hosting solar PV modules (1, 3km)	Existing hedges/woodland (modelled at 2m/10m)	Creyke Beck Solar Farm may be visible
Proposed areas for solar PV modules	Existing buildings (modelled at 7.5m)	Both may be visible
Creyke Beck Solar Farm		

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Notes: This drawing is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the Viewshed routine in the Visibility Analysis plugin for QGIS. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands, hedgerows and buildings. A digital surface model (DSM) has been derived from DEFRA 2022 LIDAR 2m DTM height data with the locations of woodland and buildings taken from the OS Open Map Local dataset. Buildings have been modelled with an assumed height of 7.5m and woodland an assumed height of 10m, representing a conservative estimate of average heights within the study area. Hedgerows have been digitised and modelled with an assumed height of 2m. The model does not take into account some localised features such as small copses or individual trees and therefore still gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be less than that suggested by this plan. The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a derived DSM and has a 5m resolution.

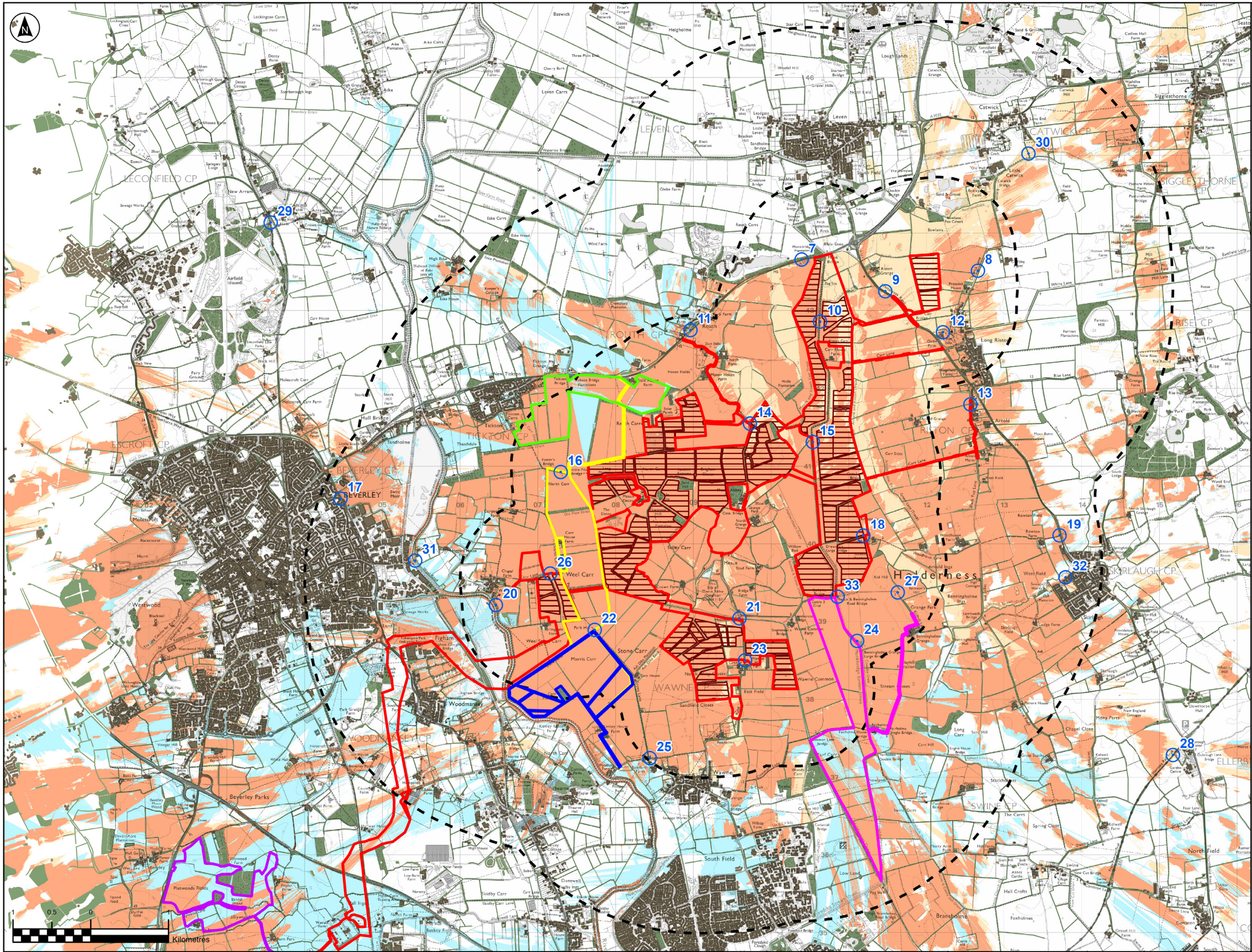
P01	20/12/2024	EF	ZF	LY	ZF
Rev	Date	By	Chkd	Appd	Authd

Client	<b>RWE</b>
Project Name	Peartree Hill Solar Farm
Designer	<b>RSK</b>

Drawing Title	Environmental Statement Volume 4, Appendix 15.2 - Detailed Cumulative Landscape and Visual Impact Assessment, Appendix A, Figure 5 Proposed Development & 21 02335 STPLF - Creyke Beck Solar Farm ZTV
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Scale at A3	1:48,000	Coordinate System	British National Grid
Status	DCO Application		
PRIS Number	EN010157/APPI6.4	Rev	P01





- | No. | Viewpoint  |
|-----|--|
| 7   | A1035  |
| 8   | Catwick Lane                                     |
| 9   | A165, White Cross Road                           |
| 10  | Monk Dike (north), PRoW Riston Footpath no.2     |
| 11  | A1035 at Routh                                   |
| 12  | Long Riston Church, PRoW Riston Footpath no.5    |
| 13  | Long Riston (Arnold)                             |
| 14  | Meaux Lane (north)                               |
| 15  | Monk Dike (south), PRoW Riston Footpath no.2     |
| 16  | PRoW Tickton Footpath no.6                       |
| 17  | A164 eastern edge of Beverley                    |
| 18  | Woodhouse Lane, PRoW Riston Footpath no.1        |
| 19  | A165 north of Skirlaugh                          |
| 20  | River Hull at Weel, PRoW Tickton Footpath no.12  |
| 21  | Meaux Lane (south)                               |
| 22  | PRoW Tickton Bridleway no.5                      |
| 23  | Meaux Road at Wawne Grange                       |
| 24  | Cowdike Drain, PRoW Swine Footpath no.7          |
| 25  | PRoW Wawne Footpath no.11 / Grove Lane           |
| 26  | Carr Lane, east of Weel                          |
| 27  | Kidhill Lane                                     |
| 28  | Trans Pennine Trail                              |
| 29  | Minster Way                                      |
| 30  | PRoW Catwick Footpath no.3                       |
| 31  | Weel Road/ River Hull                            |
| 32  | Barn Street, Skirlaugh                           |
| 33  | Meaux and Benningholme Road Bridge, Kidhill Lane |

Key	
	Order Limits
	Distance radii from fields hosting solar PV modules (1, 3km)
	Proposed areas for solar PV modules
	Viewpoints
	Kenley House Solar Farm
	Turf Carr Solar Farm
	Carr Farm Solar Farm
	Field House Solar Farm
	Creyke Beck Solar Farm
	Existing hedges/woodland (modelled at 7.5m)
	Existing buildings (modelled at 7.5m)

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**Zone of Theoretical Visibility**

	Proposed Development may be visible
	Any number of Cumulative Sites may be visible
	Proposed Development and any number of Cumulative Sites may be visible

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Client					
RWE					
Designer					
RSK					
Project Name					
Peartree Hill Solar Farm					
Drawing Title					
Environmental Statement Volume 4, Appendix 15.2 - Detailed Cumulative Landscape and Visual Impact Assessment, Appendix A, Figure 6 Combined Solar Farm Cumulative ZTV					
Scale at A3					
1:45,000					
Status					
DCO Application					
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Rev					
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Rev					
P01					



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